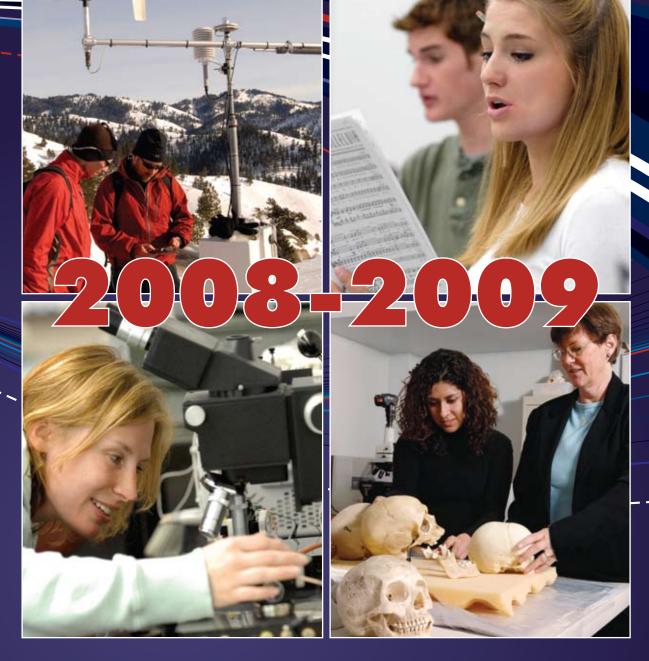
# **BOISE STATE UNIVERSITY**



# GRADUATE CATALOG

# Click here to apply online.

# BOISE STATE UNIVERSITY GRADUATE ADMISSION APPLICATION

Please include a one-time \$55 fee for a new application. There is no fee for readmission to a subsequent semester. **For International graduate students, please use the International Student Application.** You can contact the International Student Admissions Office at 208-426-1757 locally or toll-free at 1-800-824-7017 with questions.

1.	Semester you plan to enroll:	(Fall, Spring, Summer)		(Year)	
2.	Degree Program from list on back. Check o			(rour)	
	Certificate Program from list on back. Enter	, –			
3.	Full Legal Name:				
	Last Name Previous Names:		Name First Name:		Middle Name
	Frevious Names				
4.	Student ID (if a previous applicant):		5. Social Security Nun	nber:	
6.	Date of Birth:				
7.	Permanent Address:				
		Address	City	State	Zip Code
8.	Mailing Address:	Address	City	State	Zip Code
9.	E-mail Address:		<b>10.</b> Telephone Numbe		)
			- '	\	/
	Gender:  Male Female Will you have been a legal resident of the Sta (Please refer to the Graduate Catalog for de			e semester c	hecked in #1? □ Yes □ No
	If NO, state of legal residence:	If NO, date	continuous residence in l	daho began:	
13.	Citizenship: If not a l	US citizen, please include	a copy of your Resident	Alien Card.	
14.	Ethnic Origin (check one):	rican Indian 🛛 Asian	🗆 Black 🛛 Hispanic	□ White	I do not care to respond
15.	Have you previously applied to Boise State	University?  Ves	] No		
16.	Have you previously enrolled at Boise State	University? 🗆 Yes 🛛	□ No If Yes, when?_		
17.	Colleges or Universities (including Boise Sta		at all institutions attended	is considere	d fraud and subjects applicant
	to cancellation of registration and dismissal	i from the university.		Dates Atte	ended-Month/Year
Nar	me of Institution	City & State		Fron	n To
18.	College or University Degrees held:				
	Type (B.A., B.S., etc.)	College or University	Ν	lajor Field	Date Received
refu to G gra	rtify that the statements in this application are indable application fee, and have official transc araduate Admission and Degree Services. Stud nted their highest degree. I understand that any versity.	cripts sent directly from eac ents pursuing general grad	h post-high school institut uate study need to submit	ion attended an official tra	(other than Boise State) directly nscript from the institution which
Ful	Legal Signature of Applicant				
				Date	
-	ETURN TO, Creducto Admission and Degree	Comises Deise Otate Unit		444 4040 11	

RETURN TO: Graduate Admission and Degree Services, Boise State University, Math/Geoscience 141, 1910 University Drive, Boise, ID 83725. Telephone (208) 426-3903 or 426-4204. Toll-free nationwide 1-800-824-7017. Fax (208) 426-2789

ON-LINE APPLICATION: http://www.boisestate.edu/gradcoll ON-LINE APPLICATION FOR INTERNATIONAL STUDENTS: https://bweb8.boisestate.edu/eprd/bsu\_guest.html

# **DEGREE AND CERTIFICATE PROGRAMS**

#### **College of Arts and Sciences**

- MA in Art Education
- MFA in Art, Visual Arts
- MA in Biology
- MS in Biology
- □ MS in Raptor Biology
- □ MFA in Creative Writing
- □ MA in English, English Education
- □ MA in English, Literature
- MA in English, Rhetoric and Composition
- MA in Technical Communication
- Certificate in Technical Communication
- MS in Earth Science
- MS in Geology
  - Certificate in Geographical Information Analysis
- PhD in Geophysics
- MS in Geophysics
- PhD in Geosciences
- MS in Hydrologic Sciences
- MA in Interdisciplinary Studies
- □ MS in Interdisciplinary Studies
- MS in Mathematics
- □ MS in Mathematics Education
- Master of Music, Music Education
- □ Master of Music, Pedagogy
- □ Master of Music, Performance

#### **College of Business and Economics**

- □ MS in Accountancy
- □ MS in Accountancy, Taxation
- Master of Business Administration
- Executive Master of Business Administration
- □ MBA in Information Technology Management
  - Certificate in Supply Chain Management

#### **College of Education**

- □ MEd in Bilingual Education
- MEd in Educational Leadership
- □ MEd in English as a Second Language
- MA in Counseling
  - Certificate in Addiction Studies
  - Certificate in Gerontological Studies
- EdD Doctor of Education in Curriculum and Instruction
- MA in Education, Curriculum & Instruction
   Certificate in Secondary/K-12 Teaching
- MA in Education C & I, Physical Education Pedagogy
- MA in Education, Early Childhood Studies
- MEd in Early Childhood Studies
- Master of Educational Technology
- □ MS in Educational Technology
  - □ Certificate in Online Teaching
  - Certificate in School Technology Coordination
  - Certificate in Technology Integration Specialist
- MS in Exercise & Sport Studies, Behavioral Studies
- □ MS in Exercise & Sport Studies, Biophysical Studies
- □ MS in Exercise & Sport Studies, Socio-historical Studies

- □ MPE in Athletic Administration (ISU)
- □ MA in Education, Reading
- □ MA in Special Education
- MEd in Special Education

#### **College of Engineering**

- □ MS in Civil Engineering
- MEngr in Civil Engineering
- MS in Hydrologic Sciences
- □ MS in Computer Science
- PhD in Electrical and Computer Engineering
- □ MS in Computer Engineering
- □ MEngr in Computer Engineering
- MS in Electrical Engineering
- □ MEngr in Electrical Engineering
- MS in Instructional and Performance Technology
   Certificate in Human Performance Technology
- MS in Materials Science and Engineering
- MEngr in Materials Science and Engineering
- MS in Mechanical Engineering
- MEngr in Mechanical Engineering

#### **College of Health Sciences**

- □ Master of Health Science, Environmental Health
- □ Master of Health Science, General Research
- □ Master of Health Science, Health Policy
- □ Master of Health Science, Health Promotion
- □ Master of Health Science, Health Services Leadership
  - Certificate in Health Services Leadership
  - Certificate in Addiction Studies
  - Certificate in Gerontological Studies
- Master of Nursing
- □ MS in Nursing

#### **College of Social Sciences and Public Affairs**

- □ MA in Anthropology
- Master of Applied Anthropology
- MA in Communication
- □ MA in Criminal Justice
- MA in History
- Master of Applied Historical Research
- Master of Public Administration, General Public Administration
- Master of Public Administration, Environmental and Natural Resources Administration
- Master of Public Administration, State and Local Government Policy and Administration
  - Certificate in Community and Regional Planning

Revised 06/2008

- Certificate in Conflict Management
- \*Master of Social Work

**Non-Degree Seeking** 

Equal Opportunity/Affirmative Action Institution

- \*Master of Social Work, Advanced Standing \* All campuses
  - Certificate in Gerontological Studies

Graduate Studies - Education, Undeclared

Graduate Studies - Non Education

# Graduate Catalog 2008-2009

# 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 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.

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# Academic Calendar

#### **SUMMER SESSION 2008**

		For Registration Information see the Summer Schedule of Classes
February	19, Tuesday	Registration begins for Summer 2008.
April	1, Tuesday	Recommended last date to mail 2007-08 Free Application for Federal Student Aid (FAFSA) for consideration for financial aid for Summer 2008.
Мау	15, Thursday	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 by this date.
	26, Monday	Memorial Day holiday (no classes-University offices closed).
June	5, Thursday	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.
	12, Thursday	Last day to apply for graduation, using BroncoWeb, for graduate and undergraduate degrees and certificates to be awarded in August.
	13, Friday	Summer Pell Grant eligibility determined by number of credits registered on this date.
	23, Monday	Last day for final oral defense of dissertation, thesis, or project for August graduation.
	26, Thursday	
July	3, Thursday	Last day to submit <i>Application for Admission to Candidacy</i> form to Graduate Admission and Degree Services for graduate degrees and certificates to be awarded in December.
	4, Friday	Independence Day holiday (no classes–University offices closed).
	7, Monday	Last day to add assessment, graduate or undergraduate independent study, internship, or directed research.
	7, Monday	Last day to submit final signed copies of dissertation, thesis, or project to Graduate Dean's Office for August graduation.
	10, Thursday	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.
	17, Thursday	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 by this date.
	19, Saturday	Last day to complete written comprehensive exam for August graduation.

	Deadlines by Session—Summer 2008						
Session	Start Date	Last Date to Add without Permission Number	Last Date to Add with Permission Number, Last Date to Drop Without a W and Receive a Refund (Less \$25.00 Processing Fee), Last Date to Change from Credit to Audit OR Audit to Credit	Last Date to Drop with a W or Completely Withdraw	Last Date of Classroom Instruction		
first 3 week	May 19	May 19	May 20	May 27	June 8		
second 3 week	June 9	June 9	June 10	June 16	June 29		
third 3 week	June 30	June 30	July 1	July 7	July 20		
fourth 3 week	July 21	July 21	July 22	July 28	August 10		
first 5 week	June 9	June 10	June 11	June 20	July 13		
second 5 week	July 14	July 15	July 16	July 25	August 17		
first 8 week	May 19	May 21	May 23	June 9	July 13		
second 8 week	June 9	June 11	June 13	June 30	August 3		
10 week	June 9	June 11	June 17	July 7	August 17		

#### FALL SEMESTER 2008

		For Registration Information see the Fall Schedule of Classes
February	15, Friday	<i>Free Application for Federal Student Aid</i> (FAFSA) priority filing deadline for new and transfer students. Students who will begin enrollment at Boise State during the Fall 2008 semester should transmit the FAFSA, including any required signature pages, by February 15, 2008. 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, Friday	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 2008-09 year. Last day for the <i>Boise State Supplemental</i> <i>Scholarship Application</i> to be received in the Financial Aid Office to be considered for special 2008-09 merit and need-based scholarships. Last day for the <i>Brown Scholarship</i> application to be received in the Honors College. The Boise State Financial Aid Web site contains a listing of departments that require a separate scholarship application.
March	15, Saturday	<i>Free Application for Federal Student Aid</i> (FAFSA) priority filing deadline for continuing students. Deadline for submitting <i>Supplemental Scholarship Application</i> . Students attending Boise State Spring 2008 and who plan to continue attendance during the 2008-09 academic year should transmit the FAFSA or renewal FAFSA, including any required signature pages, by March 15, 2008. Students who meet this deadline will receive priority consideration for certain scholarship, grant, loan, and work-study programs.
	31, Monday	. Registration for continuing students begins for Fall 2008 (by appointment).
June	1, Sunday	. Priority deadline for international student application materials to be received for fall semester consideration.
	30, Monday	. 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 (part-time) status only.
	30, Monday	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.
August	20, Wednesday	.Faculty orientation/meetings.
	21, Thursday	.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.
	22, Friday	. Residence halls open (9:00 A.M.).
	•	Classes begin. Academic advising available throughout the semester.
		. Weekend University classes begin.
	29, Friday	. Last day for faculty initiated drops for nonattendance during the first week of the semester to be turned in to the Registrar's Office.
	29, Friday	.Last day to apply for graduation, using BroncoWeb, for graduate and undergraduate degrees and certificates to be awarded in December.
September	1, Monday	.Labor Day holiday (no classes–University offices closed).
	8, Monday	. Last day to waive student health insurance.
	8, Monday	Last day to register; add classes; add dissertation, thesis, or project credit; add graduate independent study or directed research; change from credit to audit or audit to credit; and last day to drop classes without a W and receive a refund (less \$25 processing fee) for Regular session classes. Pell Grant eligibility determined by number of credits registered on this date. For other session deadlines, see Deadlines by Session table.
	15, Monday	. Last day to submit Residency Information Form with documentation to Registrar's Office to declare Idaho residency.
	19, Friday	. Last day to file application with department for final master's or doctoral written exam.
October		. Last day to add assessment, undergraduate independent study, internship, or readings and conference.
	. 5	. Last day to drop classes or completely withdraw from the Regular session. For other sessions, see Deadlines by Session table.
	6, Monday	. Last day to submit <i>Application for Admission to Candidacy</i> form to Graduate Admission and Degree Services for graduate degrees and certificates to be awarded in May.
	11, Saturday	Final day for written comprehensive exam for graduate degrees for December graduation.
	13, Monday	. Columbus Day observed (classes in session).
	· •	Last day for final oral dissertation, thesis, or project defense for December graduation.
November	7, Friday	Last day to submit final signed copies of dissertation, thesis, or project to Graduate Dean's Office for December graduation.
	11, Tuesday	. Veterans Day (classes in session).
2	4-30, Monday-Sunday	. Thanksgiving holiday (no classes–University offices closed November 27-28).
December	•	. Weekend University classes end.
1		. Final semester examinations for the Regular session (exam schedule listed on BroncoWeb).
	•	. Residence halls close (Noon).
	19, Friday	
	30, Tuesday	. Grade reports due to Registrar's Office by Noon.

Session	Start Date	Last Date to Add without Permission Number	Last Date to Add with Permission Number, Last Date to Drop Without a W and Receive a Refund (Less \$25.00 Processing Fee), Last Date to Change from Credit to Audit OR Audit to Credit	Last Date to Drop with a W or Completely Withdraw	Last Date of Classroom Instruction
Regular*	August 25	August 29	September 8	October 3	December 12
first 4 week	August 25	August 25	August 27	September 3	September 19
second 4 week	September 22	September 22	September 24	October 1	October 17
third 4 week	October 20	October 20	October 22	October 29	November 14
fourth 4 week	November 17	November 17	November 19	November 26	December 19
first 5 week	August 25	August 26	August 27	September 5	September 26
second 5 week	September 29	September 30	October 1	October 10	October 31
third 5 week	November 3	November 4	November 5	November 14	December 12
first 8 week	August 25	August 27	August 29	September 15	October 17
second 8 week**	October 20	October 22	October 24	November 10	December 12
first 10 week	August 25	August 27	September 3	September 19	October 31
second 10 week	September 29	October 1	October 7	October 24	December 12
12 week Mountain Home	August 25	August 28	September 4	September 25	November 13

SPRING SEMESTER 2009

	JI KINO JEMEJIEK 2007
	For Registration Information see the Spring Schedule of Classes
October	1, Wednesday
	done so) in order to have aid available to pay Spring semester fees.
	15, WednesdayPriority deadline for international student application materials to be received for spring semester consideration.
	27, MondayRegistration for continuing students begins for spring semester (by appointment).
December	r 5, FridayLast day for undergraduate, degree-seeking applicants for spring semester to have all admission materials received by the Admissions Office. Students who miss this deadline will be considered for nondegree-seeking (part-time) status only.
	5, FridayLast 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.
January	14, WednesdayFaculty orientation/meetings.
	15, ThursdayFee-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.
	17, SaturdayResidence halls open (Noon).
	19, MondayDr. Martin Luther King, Jr./Idaho Human Rights Day holiday (no classes—University offices closed).
	20, TuesdayClasses begin. Academic advising available throughout the semester.
	23, Friday Weekend University classes begin.
	26, MondayLast day for faculty initiated drops for nonattendance during the first week of the semester to be turned in to the Registrar's Office.
	26, MondayLast day to apply for graduation, using BroncoWeb, for graduate and undergraduate degrees and certificates to be awarded in May.
February	2, MondayLast day to waive student health insurance.
	2, MondayLast day to register; add classes; add dissertation, thesis, or project credit; add graduate independent study or directed research; change from credit to audit or audit to credit; and last day to drop classes without a W and receive a refund (less \$25 processing fee) for Regular session classes. Pell Grant eligibility determined by number of credits registered on this date. For other session deadlines, see Deadlines by Session table.
	6, FridayLast day to file application with department for final master's or doctoral written exam.
	9, MondayLast day to submit Residency Information Form with documentation to Registrar's Office to declare Idaho residency.
	16, Monday President's Day holiday (no classes-University offices closed).
March	2, MondayLast day to add assessment, undergraduate independent study, internship, or readings and conference.
	2, MondayLast day to drop classes or completely withdraw from the Regular session. For other sessions, see Deadlines by Session table.
	2, MondayLast day to submit <i>Application for Admission to Candidacy</i> form to Graduate Admission and Degree Services for graduate degrees and certificates to be awarded in August.
	14, Saturday Last day for written comprehensive exam for graduate degrees for May graduation.
	23-29, Monday-Sunday Spring Vacation
April	3, FridayLast day for final oral dissertation, thesis, or project defense for May graduation.

# 10, Friday.....Last day to submit final signed copies of dissertation, thesis, or project to Graduate Dean's Office for May graduation.

May

10, Sunday ...... Weekend University classes end.

11-14, Monday-Thursday .. Final semester examinations for the Regular session (exam schedule listed on BroncoWeb).

15, Friday ...... Residence halls close (Noon).

16, Saturday.....Commencement.

19, Tuesday......Grade reports due to Registrar's Office by Noon.

Deadlines by Session—Spring 2009						
Session	Start Date	Last Date to Add without Permission Number	Last Date to Add with Permission Number, Last Date to Drop Without a W and Receive a Refund (Less \$25.00 Processing Fee), Last Date to Change from Credit to Audit OR Audit to Credit	Last Date to Drop with a W or Completely Withdraw	Last Date of Classroom Instruction	
Regular*	January 20	January 26	February 2	March 2	May 8	
first 4 week	January 20	January 20	January 22	January 29	February 13	
second 4 week	February 17	February 17	February 19	February 26	March 13	
third 4 week	March 16	March 16	March 18	March 25	April 17	
fourth 4 week	April 20	April 20	April 22	April 29	May 15	
first 5 week	January 20	January 21	January 22	February 2	February 20	
second 5 week	February 23	February 24	February 25	March 6	April 3	
third 5 week	April 6	April 7	April 8	April 17	May 8	
first 8 week	January 20	January 22	January 26	February 10	March 13	
second 8 week**	March 16	March 18	March 20	April 6	May 8	
first 10 week	January 20	January 22	January 28	February 17	April 3	
second 10 week	February 23	February 25	March 3	March 20	May 8	
first 12 week Mountain Home second 12 week Mountain Home	January 5 April 6	January 8 April 9	January 14 April 15	February 5 May 7	March 30 June 25	

\*The final semester exams for this session are May 11-14. 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 week-long Spring Break.

#### SUMMER SESSION 2009

# For Registration Information see the Summer Schedule of Classes June 11, Thursday ....... Last day to apply for graduation, using BroncoWeb, for graduate and undergraduate degrees and certificates to be awarded in August. 12, Friday........Summer Pell Grant eligibility determined by number of credits registered on this date. 22, Monday .......Last day for final oral dissertation, thesis, or project defense for August graduation. July 2, Thursday ......Last day to submit Application for Admission to Candidacy form to the Graduate Admission and Degree Services for graduate degrees and certificates to be awarded in December. 3, Friday..........................Independence Day observed (no classes—University offices closed). 6, Monday.......................Last day to submit final signed copies of dissertation, thesis, or project to Graduate Dean's Office for August graduation.

18, Saturday.....Last day to complete written comprehensive exam for August graduation.

Deadlines by Session—Summer 2009					
Session	Start Date	Last Date to Add without Permission Number	Last Date to Add with Permission Number, Last Date to Drop Without a W and Receive a Refund (Less \$25.00 Processing Fee), Last Date to Change from Credit to Audit OR Audit to Credit	Last Date to Drop with a W or Completely Withdraw	Last Date of Classroom Instruction
first 3 week	May 18	May 18	May 19	May 26	June 7
second 3 week	June 8	June 8	June 9	June 15	June 28
third 3 week	June 29	June 29	June 30	July 6	July 19
fourth 3 week	July 20	July 20	July 21	July 27	August 9
first 5 week	June 8	June 9	June 10	June 19	July 12
second 5 week	July 13	July 14	July 15	July 24	August 16
first 8 week	May 18	May 20	May 22	June 8	July 12
second 8 week	June 8	June 10	June 12	June 29	August 2
10 week	June 8	June 10	June 16	July 6	August 16

# **Graduate Degrees and Certificate Programs**

	Gradua	ate Degrees and Certificate Programs Offered	
Department	Degree	Program	Graduate Program Coordinator
College of Arts and Science	5		
Art	M.A.	Master of Arts in Art Education	Kathleen Keys, Ph.D.
	M.F.A.	Master of Fine Arts, Visual Arts	Cheryl Shurtleff-Young, M.A.
Biological Sciences	M.A.	Master of Arts in Biology	Ian Robertson, Ph.D.
	M.S.	Master of Science in Biology	Ian Robertson, Ph.D.
	M.S.	Master of Science in Raptor Biology	Ian Robertson, Ph.D.
English	M.F.A.	Master of Fine Arts in Creative Writing	Martin Corless-Smith, Ph.D.
	M.A.	Master of Arts in English, English Education	Matthew C. Hansen, Ph.D.
	M.A.	Master of Arts in English, Literature	Matthew C. Hansen, Ph.D.
	M.A.	Master of Arts in English, Rhetoric and Composition	Matthew C. Hansen, Ph.D.
	M.A.	Master of Arts in Technical Communication	Mike Markel, Ph.D.
	Certificate	Technical Communication	Mike Markel, Ph.D.
Geosciences	Ph.D.	Doctor of Philosophy in Geophysics	Kasper van Wijk, Ph.D.
	Ph.D.	Doctor of Philosophy in Geosciences	Mark Schmitz, Ph.D.
	M.S.	Master of Science in Earth Science	David Wilkins, Ph.D.
	M.S.	Master of Science in Geology	Mark Schmitz, Ph.D.
	M.S.	Master of Science in Geophysics	Kasper van Wijk, Ph.D.
	M.S.	Master of Science in Hydrologic Sciences	James McNamara, Ph.D.
	Certificate	Geographical Information Analysis	David Wilkins, Ph.D.
Mathematics	M.S.	Master of Science in Mathematics	Jodi Mead, Ph.D.
	M.S.	Master of Science in Mathematics Education	Sharon Walen, Ph.D.
Music	M.M.	Master of Music, Music Education	Jeanne M. Belfy, Ph.D.
	M.M.	Master of Music, Pedagogy	Jeanne M. Belfy, Ph.D.
	M.M.	Master of Music, Performance	Jeanne M. Belfy, Ph.D.
Interdisciplinary Studies	M.A.	Master of Arts in Interdisciplinary Studies	Daryl Jones, Ph.D.
Minimum of two departments	M.S.	Master of Science in Interdisciplinary Studies	Daryl Jones, Ph.D.
College of Business and Ecc	onomics		
Accountancy	M.S.	Master of Science in Accountancy	Kirk Smith, Ph.D.
	M.S.	Master of Science in Accountancy, Taxation	Kirk Smith, Ph.D.
Graduate Studies	M.B.A.	Master of Business Administration	Kirk Smith, Ph.D.
	M.B.A.	Master of Business Administration in Information Technology Management	Kirk Smith, Ph.D.
	M.B.A.	Executive Master of Business Administration	Kirk Smith, Ph.D.
Information Technology & Supply Chain Management	Certificate	Supply Chain Management	Kirk Smith, Ph.D.
College of Education			·
Bilingual Education	M.Ed.	Master of Education in Bilingual Education	Roberto E. Bahruth, Ph.D.
	M.Ed.	Master of Education in English as a Second Language	Roberto E. Bahruth, Ph.D.
Counselor Education	M.A.	Master of Arts in Counseling	Bobbie Birdsall, Ph.D.
Counselor Education/ Health Sciences	Certificate	Addiction Studies	Diana Doumas, Ph.D.

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	Gradu	ate Degrees and Certificate Programs Offered (continued)	
Department	Degree	Program	Graduate Program Coordinato
Counselor Education/ Health Sciences/Social Work	Certificate	Gerontological Studies	Bobbie Birdsall, Ph.D.
Curriculum, Instruction &	Ed.D.	Doctor of Education in Curriculum and Instruction	Keith Thiede, Ph.D.
Foundational Studies	M.A.	Master of Arts in Education, Curriculum and Instruction	Ted Singletary, Ph.D.
	M.A.	Master of Arts in Education, Curriculum and Instruction, Physical Education Pedagogy Option	Kenneth Bell, Ph.D.
	M.Ed.	Master of Education in Educational Leadership	Kathleen Budge, Ed.D.
	Certificate	Secondary/K-12 Teaching	Ted Singletary, Ph.D.
Educational Technology	M.E.T.	Master of Educational Technology	Lisa Dawley, Ph.D.
	M.S.	Master of Science in Educational Technology	Lisa Dawley, Ph.D.
	Certificate	Online Teaching	Lisa Dawley, Ph.D.
	Certificate	School Technology Coordination	Lisa Dawley, Ph.D.
	Certificate	Technology Integration Specialist	Lisa Dawley, Ph.D.
Kinesiology	M.S.	Master of Science in Exercise and Sport Studies, Behavioral Studies	Shelley Lucas, Ph.D.
	M.S.	Master of Science in Exercise and Sport Studies, Biophysical Studies	Shelley Lucas, Ph.D.
	M.S.	Master of Science in Exercise and Sport Studies, Socio-historical Studies	Shelley Lucas, Ph.D.
	M.P.E.	Master of Physical Education in Athletic Administration (ISU)	Shelley Lucas, Ph.D.
Literacy	M.A.	Master of Arts in Education, Reading	Stan Steiner, Ph.D.
Special Education and	M.A.	Master of Arts in Education, Early Childhood Studies	Keith Allred, Ph.D.
Early Childhood Studies	M.Ed.	Master of Education in Early Childhood Studies	Keith Allred, Ph.D.
	M.A.	Master of Arts in Special Education	Keith Allred, Ph.D.
	M.Ed.	Master of Education in Special Education	Keith Allred, Ph.D.
Additional Education Programs	M.A. M.S. M.A. M.S. M.M.	College of Arts & Sciences Master of Arts in Art Education Master of Science in Earth Science Master of Arts in English, English Education Master of Science in Mathematics Education Master of Music, Music Education	Kathleen Keys, Ph.D. David Wilkins, Ph.D. Matthew C. Hansen, Ph.D. Sharon Walen, Ph.D. Jeanne M. Belfy, Ph.D.
	M.S.W.	College of Social Sciences and Public Affairs Master of Social Work	William Rainford, Ph.D.
College of Engineering			
Civil Engineering	M.S.	Master of Science in Civil Engineering	George Murgel, Ph.D.
	M.Engr.	Master of Engineering in Civil Engineering	George Murgel, Ph.D.
	M.S.	Master of Science in Hydrologic Sciences	James McNamara, Ph.D.
Computer Science	M.S.	Master of Science in Computer Science	Amit Jain, Ph.D.
Electrical and Computer Engineering	Ph.D.	Doctor of Philosophy in Electrical and Computer Engineering	John Chiasson, Ph.D.
	M.S.	Master of Science in Computer Engineering	Scott Smith, Ph.D.
	M.Engr.	Master of Engineering in Computer Engineering	Scott Smith, Ph.D.
	M.Engr. M.S.	Master of Engineering in Computer Engineering Master of Science in Electrical Engineering	Scott Smith, Ph.D. Jake Baker, Ph.D.

# Graduate Degrees and Certificate Programs

Graduate Degrees and Certificate Programs Offered (continued)			
Department	Degree	Program	Graduate Program Coordinato
Instructional & Performance Technology	M.S.	Master of Science in Instructional & Performance Technology	Donald Stepich, Ph.D.
	Certificate	Human Performance Technology	Donald Stepich, Ph.D.
Materials Science and	M.S.	Master of Science in Materials Science & Engineering	Darryl Butt, Ph.D.
Engineering/Biological Sciences/Chemistry/Physics	M.Engr.	Master of Engineering in Materials Science & Engineering	Darryl Butt, Ph.D.
Mechanical and Biomedical	M.S.	Master of Science in Mechanical Engineering	Steve Tennyson, Ph.D.
Engineering	M.Engr.	Master of Engineering in Mechanical Engineering	Steve Tennyson, Ph.D.
College of Health Sciences			
Health Sciences	M.H.S.	Master of Health Science, Environmental Health	Theodore McDonald, Ph.D.
	M.H.S.	Master of Health Science, General Research	Theodore McDonald, Ph.D.
	M.H.S.	Master of Health Science, Health Policy	Theodore McDonald, Ph.D.
	M.H.S.	Master of Health Science, Health Promotion	Theodore McDonald, Ph.D.
	M.H.S.	Master of Health Science, Health Services Leadership	Theodore McDonald, Ph.D.
Health Sciences/ Counselor Education	Certificate	Addiction Studies	Diana Doumas, Ph.D.
Health Sciences/Social Work/ Counselor Education	Certificate	Gerontological Studies	Bobbie Birdsall, Ph.D.
Health Sciences	Certificate	Health Services Leadership	Theodore McDonald, Ph.D.
Nursing	M.N.	Master of Nursing	Abigail A. Gerding, Ph.D.
	M.S.N.	Master of Science in Nursing	Abigail A. Gerding, Ph.D.
College of Social Sciences o	and Public A	Iffairs	
Anthropology	M.A.	Master of Arts in Anthropology	Mark Plew, Ph.D.
	M.A.A.	Master of Applied Anthropology	Mark Plew, Ph.D.
Communication	M.A.	Master of Arts in Communication	Peter Wollheim, Ph.D.
Criminal Justice	M.A.	Master of Arts in Criminal Justice	David Mueller, Ph.D.
Dispute Resolution	Certificate	Conflict Management	Suzanne McCorkle, Ph.D.
History	M.A.	Master of Arts in History	Jill Gill, Ph.D.
	M.A.H.R.	Master of Applied Historical Research	Jill Gill, Ph.D.
Public Policy and Administration	M.P.A.	Master of Public Administration, General Public Administration	Elizabeth Fredericksen, Ph.D.
	M.P.A.	Master of Public Administration, Environmental and Natural Resources Administration	Elizabeth Fredericksen, Ph.D.
	M.P.A.	Master of Public Administration, State and Local Government Policy and Administration	Elizabeth Fredericksen, Ph.D.
	Certificate	Community and Regional Planning	Susan Mason, Ph.D.
Social Work	M.S.W.	Master of Social Work	William Rainford, Ph.D.
Social Work/Health Sciences/ Counselor Education	Certificate	Gerontological Studies	Bobbie Birdsall, Ph.D.

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Graduate Degrees and Certificate Programs Offered (continued)				
Department	Degree	Program	Graduate Program Coordinator	
Interdisciplinary Programs	Interdisciplinary Programs			
Geosciences/Civil Engineering	M.S.	Master of Science in Hydrologic Sciences	James McNamara, Ph.D.	
Interdisciplinary Studies	M.A.	Master of Arts in Interdisciplinary Studies	Daryl Jones, Ph.D.	
	M.S.	Master of Science in Interdisciplinary Studies	Daryl Jones, Ph.D.	
Materials Science and	M.S.	Master of Science in Materials Science and Engineering	Darryl Butt, Ph.D.	
Engineering/Biological Sciences/Chemistry/Physics	M.Engr.	Master of Engineering in Materials Science & Engineering	Darryl Butt, Ph.D.	
Counselor Education/ Health Sciences	Certificate	Addiction Studies	Diana Doumas, Ph.D.	
Counselor Education/ Health Sciences/Social Work	Certificate	Gerontological Studies	Bobbie Birdsall, Ph.D.	

# Graduate College

# Office of the Graduate Dean

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

# Graduate Admission and Degree Services

Math/Geosciences Building, Room 141	
	208 426-4204
	208 426-1074
Graduate Degree Services Coordinator, Jim Allen	
Office Services Supervisor, Linda Platt	
Technical Records Specialist, Ginger Moyers	
Office Specialist, Suzetta Gibson	

#### **Additional Services**

Financial Aid, Administration Building, Room 113	
GMAT Testing Center, Pearson Professional Centers, 1951 S. Saturn Way, Suite 200, Boise, ID 83709	
Other Pearson locations: 800 247-8731 or register online at http://www.vue.com	
GRE Testing Center, Pro-Metric, 5123 N. Glenwood Street, Garden City, ID 83714	
Other Pro-Metric locations: 1 800 967-1100 or register online at http://www.prometric.com	
GRE, GMAT Test Prep Classes, Extended Studies, 1015 Grant Avenue	
International Student Admissions, Sally Pittman, Administration Building, Room 107	
Payment and Disbursement Center, Administration Building, Room 211	
	208 426-4148
PRAXIS Testing, Thomson Pro-Metric testing locations	1 800 853-6773
Registrar, Administration Building, Room 110	

# An Introduction to Boise State University

# 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 infinite variety. To the south are rich farmlands; a rugged, high-mountain desert; North America's tallest sand dunes; and the famous Birds of Prey Natural Area. To the north, forests, whitewater rivers, and mountain lakes provide opportunities for kayaking, fishing, hunting, and hiking. For example, 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 fishing, hiking, skiing, river rafting, golf, tennis, and camping are available only a short distance from campus.

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

# **Mission of the University**

Boise State University exists to educate people. Our goal is to foster an intellectual atmosphere that produces educated, literate people—people knowledgeable of public affairs, committed to life-long learning, and capable of creative problem solving. As a student at Boise State University, you have an opportunity to receive an education that will prepare you not only for employment and career advancement, but also for participation in society as an active, informed citizen.

Since its inception, the university has responded to the wideranging academic needs of the community, serving Boise and the surrounding area with undergraduate and graduate programs, research, and public service. An urban university, Boise State University reflects the character and spirit of Boise—Idaho's center of business and government. In fact, to ensure that Boise State University's mission takes its cue from the university's urban setting, the Idaho State Board of Education has mandated that we place primary emphasis on education in the following areas:

- business and economics
- engineering
- performing arts
- public affairs
- social sciences
- teacher preparation

At the same time, the university places continuing emphasis on the health professions and the physical and biological sciences and education, while maintaining basic strengths in the sciences and liberal arts.

# History of the University

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 juniorcollege 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 offers 73 master's programs, 13 graduate certificates, and 4 doctoral programs, the Doctor of Education in Curriculum and Instruction (1994), the Doctor of Philosophy in Geophysics (2000), the Doctor of Philosophy in Geosciences (2006), and the Doctor of Philosophy in Electrical and Computer Engineering (2006). Each semester more than 2,200 students enroll through the Graduate College.

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

The university is a fully accredited member of the Northwest Commission on Colleges and Universities and 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:

- Accreditation Board for Engineering and Technology
- American Bar Association
- American Chemical Society
- American Council for Construction Education
- American Culinary Federation Accrediting Commission
- American Dental Association Commission on Dental Accreditation
- American Health Information Management Association
- The Association to Advance Collegiate Schools of Business
   (AACSB) International
- Commission on Accreditation of Allied Health Education
   Programs
- Committee on Accreditation Respiratory Care
- Council for Accreditation of Counseling and Related Educational Programs
- Council on Social Work Education
- Equipment and Engine Training Council
- Idaho State Board of Nursing
- International Association of Counseling Services
- 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 Automotive Technicians Education Foundation
- National Council for Accreditation of Teacher Education
- National Council in Economic Education
- National Environmental Health Science and Protection Accreditation Council
- National League for Nursing
- Professional Truck Driving Institute

# **Students**

Each semester, Boise State University enrolls more than 19,000 students in its academic and applied technology 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, as a Boise State University student you can reach beyond the classroom for experiences 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 private business and industry. In addition, you can attend a wide variety of civic, cultural, and social events hosted by Boise State University.

# 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 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.

**The Graduate Faculty** consists of full-time faculty members approved by the Graduate Council to teach graduate-level courses, supervise graduate students, and participate in conducting graduate programs. Some part-time faculty members are appointed as members of the Adjunct Graduate Faculty; they are approved by the Graduate Council to teach graduate courses or serve on graduate committees.

**The Graduate Program Coordinator** for a graduate program is nominated by the academic unit and approved by the Graduate College. The graduate program coordinator must be a member of the graduate faculty and an official faculty member of the academic unit. The duties of the graduate program coordinator are jointly defined by the academic unit and the Graduate College.

# 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 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 enrollment services, financial aid, and the registrar. **The Counseling and Testing Center** is located on the first floor of **Taylor Hall**, while the **Student Health Center** is located across University Drive from the main campus. Also on University Drive, the **Boise State University Career Center** is located across from Bronco Stadium.

The Business Building features computer labs and three electronic classrooms furnished with the latest in teleconferencing equipment. In addition, three Engineering and Technology Buildings contain modern classrooms and laboratories-many equipped with computers-for use in engineering, construction management, and other technical programs. Both the Education Building and the Liberal Arts Building offer comfortable, well-equipped classrooms and computer labs, as do the Math/Geosciences Building, the Multi-Purpose Classroom Facility, and the Public Affairs/Art West Building. The Interactive Teaching and Learning Center supports the latest in technology with 12 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 newly formed Center for Teaching and Learning at Boise State.

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.

In the **Simplot/Micron Building**, Boise State University through Academic Technologies is pioneering the use of technology to improve the effectiveness of instruction and to provide learning opportunities at remote locations. For instance, a satellite earth station and an inter-campus microwave system enable students scattered throughout the state to participate in classes conducted on campus.

Boise State University students also enjoy a contemporary **Student Union**, which provides facilities for social, recreational, and cultural activities. In addition to a quick-copy center and three 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 **Taco Bell Arena** is Idaho's largest multi-purpose arena. When not filled with fans of Bronco basketball, gymnastics, or volleyball, the Taco Bell Arena is the site of concerts, professional sporting events, and family entertainment. Nearby is **Bronco Stadium**, with a seating capacity of 30,000.

# The Albertsons Library

The Albertsons Library provides access to over 560,000 books, a vast array of journals, more than 160 databases, reference works, newspapers, 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 also serves as a student computer lab with over 95 computers available for student use.

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

- 565,900 monograph volumes
- 91,341 bound periodicals
- 40,000+ journals, periodicals and newspapers
- 200+ online databases
- 100,636 maps
- 100,462 U.S. government publications
- 1,440,091 microform pieces

The Web site **library.boisestate.edu** has links to many 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. Most of the 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 assistance and guidance in using library resources. These resources include an extensive collection of periodical indexes in print and electronic formats, handbooks, encyclopedia, dictionaries, U.S. government documents, and maps. The reference area also provides basic and advanced bibliographic search materials and instruction in their use.

The **Special Collections** area contains manuscript collections, rare books, and the university archives in addition to housing the papers of Senator Len B. Jordan, Senator Frank Church, and Interior Secretary/Governor Cecil Andrus. 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 www.boisestate.edu/ oitlabs 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 Western Athletic Conference (WAC) in football (2007 Tostitos Fiesta Bowl Champions), men's and women's basketball, men's and women's golf, women's gymnastics, women's soccer, women's softball, women's swimming and diving, men's and women's tennis, men's and women's track and field and cross country, and women's 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.

Student ticket policies to athletic events are listed in the *Boise State University Student Handbook*.

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

#### **Campus Recreation**

Campus Recreation offers activities that are exciting and challenging. The Student Recreation Center (SRC) serves as the hub for university students, faculty, staff, and alumni who want to participate in physical activity. It provides personalized training, competitive and recreational sports, club activities, group exercise, outdoor recreation, cardio and strength workout options, and a fun place to hang out with friends. A multitude of options are made available to meet the community's every need. There are many opportunities to recreate at Boise State. The Student Recreation Center is comprised of a 3-court gymnasium, 4 racquetball courts (one of which converts to a squash court), a full compliment of strength and cardio equipment, multi-purpose rooms, and a rock climbing gym. In addition, there are locker rooms, saunas, equipment available for check out, athletic training, and massage services. Beyond the doors of the SRC, facilities include a swimming pool, recreation field, and tennis courts. Within these facilities, Campus Recreation offers a wide variety of programs.

The **Fitness Program** organizes over 50 drop-in group exercise classes each week during the semester including cycling, lift, yoga, street dance, and kickboxing. Motivational help in exercising is available, including instructional programs, periodic incentives, fitness testing, and personal training. Workshops related to fitness, health, and nutrition are offered to educate the Boise State University community.

For students interested in an organized athletic activity the **Intramural Sports Program** establishes numerous oncampus activities. Both the novice and expert can experience fun competition in team, dual, and individual sports throughout the year. The biggest event is the annual Toilet Bowl (flag football), which is played on the famous blue turf to kick off Homecoming week.

**Club Sports** offers athletic and competitive choices in a variety of disciplines for those interested in serious activity. Opportunities exist for participants to learn a new sport or maintain the personal level of expertise in the sport they love. All clubs are student led, operated, and funded. They provide a chance for individuals to develop and implement their leadership skills. Clubs practice regularly and often compete against local and regional opponents. There are approximately two-dozen existing Club Sports, however if a person's interests are not represented, Campus Recreation is more than happy to help them start a new club.

The **Outdoor Program** strives to take people away from the confines of campus to explore all that southern Idaho has to offer. A rental shop provides inexpensive four-season equipment rental. The experienced staff can provide tripplanning assistance while its library has maps and guidebooks for reference. If someone is interested in learning a new skill or building upon their current knowledge, workshops and seminars are provided in a variety of outdoor activities

For more information, leadership opportunities, and additional activities, come visit us at the Student Recreation Center, call 208 426-1131, or go to http://rec.boisestate.edu.

# 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.

(4) (5) (6) BIOL 503 ADVANCED BIOMETRY (3-3-4) (\$) (Even years). A survey of experimental design and selected multivariate techniques. Designed to assist in selecting statistical techniques for gathering and analyzing biological data, and interpreting the statistical analysis of data. Prior experience with Statistical Analysis System (SAS) is helpful. PREREQ: BIOL 501 or PERM/INST.

(7)

(1) (2) (3)

- 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 99non-academic credit courses 100 - 299 lower-division undergraduate courses 300-499 upper-division undergraduate courses 500-699 graduate-level 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, 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 corequisites using the following abbreviations:

PREREQ:	prerequisite (condition to be met before
COREQ:	enrollment) corequisite (condition met before or during enrollment)
PERM/INST:	permission of instructor required to
PERM/CHAIR:	enroll permission of department chair required to enroll

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.

A university-wide graduate course represents a certain type of graduate activity with the same course number and title across all academic units (see University-Wide Graduate Courses in this section). 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 universitywide courses.

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**

**553 PROFESSIONAL EDUCATION (0-1-1 to 0-3-3).** Available at special fee rate (approximately one-third of part-time fee rate). Credit is awarded for professional development only and cannot be applied to a graduate degree program by policy of the State Board of Education.

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

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

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

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

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

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

#### 594 CONFERENCE OR WORKSHOP (Variable Credit).

Intensive daily instruction by a recognized expert in a specialized topic over a period of time considerably shorter than a semester. Workshop credits may not transfer.

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

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

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

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

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

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

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

697 SPECIAL TOPICS [Required Modifier] (Variable Credit).

Instruction on a topic that is not included in the catalog of regular graduate courses; the topic is indicated by the required modifier. Descriptions for these courses are given in the *Schedule of Classes* published each semester. Either graded or pass/fail.

# **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. In the *Boise State University Student Handbook*, for instance, you will find the Student Bill of Rights and the Code of Conduct, along with information on:

- academic regulations
- civic and cultural events
- fees
- health insurance
- parking
- · services for students
- · student organizations
- university committees
- university policies and procedures governing sanctions, judicial procedures, and hearing boards

Each student is expected to be familiar with the information in the *Boise State University Student Handbook*. You can obtain a copy online at http:///www.boisestate.edu/osrr/.

**Office of 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 http://www.boisestate.edu/osrr/.

# **Academic Honesty**

The university's goal is to foster an intellectual atmosphere that produces educated, literate people. Cheating and plagiarism are not tolerated in any form. 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:

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

Responding to academic dishonesty is the responsibility of the instructor of the course in which the dishonesty occurs. If plagiarism or other academic dishonesty is committed during the course of thesis, project, or dissertation work, the research advisor, in consultation with the student's committee and the Graduate Dean, shall determine the appropriate response.

A student guilty of academic dishonesty may be dismissed from the class, may receive a failing grade, or may be dismissed from the university. For more information about academic dishonesty, see the following publications:

- Boise State University Policy Manual
- Boise State University Student Handbook
- Student Code of Conduct (http://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**

The Registrar's Office makes every effort to ensure that transcript records are up-to-date and accurate. You have the right to appeal any information on your transcript that inaccurately reflects your academic history. However, information on a transcript is changed only in extraordinary or extenuating circumstances.

If there is an error or omission on your transcript, send a detailed description of the error or omission, along with copies of the relevant documents, to the Registrar's Office, Administration Building, Room 110, 208 426-4249.

# **Confidentiality and Privacy**

Following the guidelines established by the Family Educational Rights and Privacy Act of 1974 (**FERPA**), the university strives to protect your personal privacy and the confidentiality of your official student record. This section generally describes Boise State University's policy on confidentiality and privacy, as defined by the *Boise State University Policy Manual*, (http://boisestate.edu/policy/).

Most of the information in your student record is considered confidential, with the following exceptions:

- your local address
- your date of birth
- your e-mail address
- your local telephone number
- your major field of study
- the dates you attended Boise State University
- your student classification (freshman, sophomore, junior, senior, or graduate)
- your enrollment status (for example, whether you are a full-time student or a part-time student)

- the type of any degree you have earned from Boise State University and the date on which you received it
- the Dean's list and other honors released to the newspapers

The information listed above is considered public information; however, the university does not sell lists of students or name-and-address labels to businesses or agencies outside the university. If you wish to limit access to this information, you should notify the Registrar's Office that you want the information treated as confidential. You can do so by logging onto BroncoWeb and setting your FERPA/Directory Restriction preferences.

In discharging their official duties, Boise State University 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 University faculty and staff must first secure your written permission to do so.

# 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" above). 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	
5 to 8	Half-Time	
4 or fewer	Less Than Half-Time	

Note: If you are receiving financial aid, please read the chapter on Financial Aid 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, to determine your enrollment status.

# Name Changes

Currently enrolled students should promptly report a change of name to the Registrar's Office, Administration Building, Room 110. You may do so by completing a *Student Information Update* form and return the form to the Registrar's Office, 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.

If you are also an employee of the University, you must report your name change to the Department of Human Resource Services, Administration Building, Room 218 (documentation requirements may differ).

# **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 telephone, or by sending in a change-of-address card from the post office to the Registrar's Office, Administration Building, Room 110. Currently enrolled students must update address information on BroncoWeb (http://broncoweb.boisestate.edu).

# 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, the graduate program coordinator or department chair must submit a letter to the Graduate Dean justifying the withdrawal of the student. The Graduate Dean will complete the withdrawal procedure in cooperation with the Registrar's Office. Please refer to the chapter on General Policies sections on "Acceptable Academic Performance" and "Course Repeat Policy" for more information on withdrawals.

Administrative withdrawals due to ineligibility to be in a course or continue in school for reasons other than nonpayment of financial obligations will not appear on the student's transcript.

# **Right of Appeal**

You have the right to appeal any academic policy or requirement if either of the following conditions are 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 Graduate Dean and by the University Appeals Committee if 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 Student Handbook* and the *Boise State University Policy Manual*. Contact the Office of the Registrar, Administration Building, Room 110, 208 426-4249.

# **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 certificate or degree program is said to be applying as a graduate degreeseeking student. All other 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 computed for all undergraduate credits;
- 2. a GPA of 3.0 computed for the last half of the undergraduate credits.

Finally, if the applicant is applying as a graduate degreeseeking 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 Certificate or **Degree 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.

# Admission Status for Degree-Seeking Students

Applicants can monitor the arrival of admission materials using the Admissions Check-list on BroncoWeb.

An applicant who applies as a graduate degree-seeking student with 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 admission materials, a Program Admission Recommendation file is forwarded to the appropriate academic program. The student is said to be in PDR admission status (PDR indicates pending department review). A student in PDR status may enroll in courses for which he or she is eligible but is not permitted to work toward a graduate certificate or degree and is not eligible for federal financial aid. If the student completes courses while in PDR status and is later admitted to a graduate program, the responsible academic unit has the authority to decide which courses completed during PDR status 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.

The academic unit responsible for the program takes the application into consideration using its normal process to determine the admission recommendation. Once the process is complete, the program coordinator of the academic unit completes the Program Admission Recommendation form and forwards it to the dean of the Graduate College. The Graduate Dean 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 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. Provisional status establishes 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 administratively withdrawn from the graduate program by the dean of the Graduate College.

**Note:** The academic unit is a department, college, or specifically appointed unit that is assigned the task of administering a graduate program.

# 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 certificate or degree and is not eligible for federal financial aid. If the student completes courses while in graduate nondegreeseeking status and later applies and is admitted to a graduate program, the responsible academic unit has the authority to decide which courses completed in graduate nondegreeseeking status can be applied to the credit requirements of the program. The academic unit also has the authority to define

#### 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 http://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 http://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 http://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 http://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.

a maximum number of applicable credits of this type for the program but the maximum cannot exceed one third of the total credit requirement.

# 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 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 2008:June 30, 2008Spring Semester 2009:December 5,Summer Sessions 2009:One week bef

June 30, 2008 December 5, 2008 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 deadline specified in "Application Deadlines," above.

- 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 http://www.boisestate.edu/ gradcoll or call 208 426-3903.
   An application is available inside the front cover of this catalog or you may submit an on-line application available at http://www.boisestate.edu/gradcoll.
- 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 141, Math/Geosciences Building, Boise State University, 1910 University Drive, Boise, ID 83725-1110.
- 3. Take any predictive 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. 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 program. You must still be recommended for admission by the coordinator of the graduate program to which you are applying. Finally, you are officially admitted to the graduate program only after receiving written notification 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 an 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 http://www.boisestate.edu/ gradcoll or call 208 426-3903.

An application is available inside the front cover of this catalog or you may submit an on-line application available at http://www.boisestate.edu/gradcoll. 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 Math/Geosciences Building, Room 141 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, even if you plan to enroll in an undergraduate program.

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, Administration Building, Room 107 along with the nonrefundable application fee. The current application fee is available online at http://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 Administration Building, Room 107 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. 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 is 4018.) For applicants to graduate degree programs, Boise State requires a minimum TOEFL score of 550 paper-/213 computer-/80 internet-based testing or 6.0 on the IELTS, with the following exceptions: The College of Business, College of Engineering (excluding the M.S. in Instructional & Performance Technology), and the Department of Educational Technology require a minimum TOEFL score of 587/240/95 or 6.5 on the IELTS for admission to their graduate programs.

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 Math/Geosciences Building, Room 141 Boise State University Boise, ID 83725-1110

(The institution code number for Boise State 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. If you are enrolled full-time, your student fees cover the cost of participating in Boise State's health insurance plan.

**NOTE:** Additional information for international students is located in the Division of Extended Studies section.

# Administrative Handling of Admission Documents

The Graduate Admission and Degree Services office 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 Mathematics/Geosciences Building, Room 141 208 426-3903 or 426-4204 FAX 208 426-2789 http://www.boisestate.edu/gradcoll e-mail: gradcoll@boisestate.edu

International Admissions Office Administration Building, Room 107 208 426-1757 http://admissions.boisestate.edu

# **Graduate Academic Regulations**

# Overview

The general academic regulations of the university that apply to graduate certificate and degree 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 the regulations that govern the graduate program in which they participate.

# 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 9 graduate credits. (Note that 8 or more credits are considered a "full schedule" for fee purposes.) Credit is said to be *applicable credit* if it is eligible for application to the credit requirements of a graduate certificate or degree 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** Supervisory Committee. A supervisory committee is composed of members of the graduate faculty who are appointed by the Graduate Council and charged with the guidance of a student in a specific

graduate 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 be graduate faculty in the academic unit responsible for the program.

Appointment of a supervisory committee is initiated by the academic unit by submitting an Appointment of 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 Appointment of Supervisory Committee form is found at http://www.boisestate.edu/gradcoll/forms/form grad/committee26.pdf.

This form must be submitted to Graduate Admission and Degree Services (MG-141) by degree-seeking students in a graduate program that requires a thesis or dissertation 1) within one year of the onset of coursework, or 2) by the time the Application for Admission to Candidacy for Graduate Degree or Certificate form is submitted, whichever is first.

**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 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.

# 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 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

#### **Graduate Academic Regulations**

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 administratively withdrawn 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 (see page 39-40).

**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 or 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 the *Application for Admission to Candidacy* form (for a degree or certificate program) if it 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, 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 administratively withdrawn from the program by the Graduate College.

# **Repetition of Courses**

**Repetition to Improve a Grade** A graduate student who has completed a 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 courses cannot be repeated to improve a grade, including 590 Practicum/Internship, 591 Project, 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.

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; 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 summer session appear on the student transcript and GPA computations are carried out according to university policy 2100-B. 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 and MUS 564) 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 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 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 College.

#### 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.1.(10).(d) of the *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* (available from the Registrar, or online at http:// boisestate.edu/gradcoll/0004.html from Graduate Admission and Degree Services then select Senior Permit form.). 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 in the future. 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.

# Choice of Catalog Year

A student enrolled in a graduate certificate or degree program may choose to meet the program requirements defined in any graduate catalog in effect after admission to the program. The final audit carried out by the Registrar will use the requirements in the graduate catalog specified by the student. If the student specifies no particular catalog, then the program requirements in the current catalog become the default selection.

# Admission to Candidacy

Admission to candidacy is required of all degree-seeking graduate students (certificate students, see Regulations for Graduate Certificate Programs). The candidacy form serves as an important intermediate check that reveals overlooked or misinterpreted requirements. If left uncorrected, these shortcomings can seriously delay progress toward a graduate degree. Because of the importance of candidacy, a student who has not been admitted to candidacy cannot schedule or participate in a final oral examination or Apply for Graduation (see *Completion of Graduate Degree* below). Normal procedures may resume once the student has been admitted to candidacy. The requirements for admission to candidacy depend on the type of degree as follows:

#### Candidacy Requirements for a Master's Student A

master's student may be admitted to candidacy if he or she is in regular status and has completed a set of courses sufficient to satisfy at least one 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 he or she is in regular status, has passed the comprehensive examination, has satisfied any language proficiency requirement, has satisfied the doctoral residency requirement, and has completed a set of courses sufficient to satisfy the total credit requirements (exclusive of 693 Dissertation) with individual course grades of C or better and a GPA of at least 3.0 (computed for the set of courses).

**Procedures** It is important that a student apply for candidacy as soon as the candidacy requirements are believed to be met. A student applies for admission to candidacy by completing an Admission to Candidacy form provided by the Graduate College or by the academic unit responsible for the program. A properly completed Admission to Candidacy form includes the exact final list of courses that are to be applied to meet the credit requirements of the graduate degree program as defined in a specified edition of the graduate catalog. The form must be signed by the student, by the chair of the supervisory committee or the advisor, and by the graduate program coordinator, and is then submitted to Graduate Admission and Degree Services no later than the semester prior to the semester of graduation (exact deadlines are published in the academic calendar). Once the Admission to Candidacy form is approved by the Graduate College, the student is notified that he or she has been admitted to candidacy and the form becomes a binding agreement between the student and the university. A change in an approved Admission to Candidacy form cannot be made without approval of an Adjustment of Academic Requirements form by the academic unit and the Graduate College.

# Preparation and Submission of Dissertations and Theses

A student must follow the publication standards of the Graduate College for dissertations and theses as given in a manual entitled *Standards for Preparation of Dissertations and Theses in the Graduate College* (available in the Boise State University Bookstore). Academic units may also choose these standards on a programmatic basis for the format and archival of master's projects (see Regulations for Master's Programs section). Academic Units are responsible for reviewing and archiving projects using procedures approved by the Graduate College. Regardless of whether a dissertation, thesis or project is produced, a student should consult with the chair of his or her supervisory committee or his or her advisor on matters of form and style such as abbreviations, figures, tables, footnotes, references, and bibliography. Some academic units have adopted a style manual that is appropriate to the major field of study. Alternate style manuals must be approved by the Graduate College.

The final draft of a dissertation or thesis (or project if required to meet Graduate College standards by the academic unit) must be reviewed by the dissertation and thesis editor of the Graduate College. Documents that do not conform to the standards of the Graduate College will be returned to the student. When the document is fully approved by the editor, the student must provide two archival copies to be retained by the university that are printed on 25% cotton fiber paper. The academic unit may also require the student to provide a fully approved archival copy on 25% cotton fiber paper. Receipt of these copies in the Graduate College must occur no later than the deadline published in the academic calendar (about five weeks before the expected date of graduation).

# Completion of Graduate Certificate or Graduate Degree

A student nearing completion of a graduate certificate or graduate degree program must apply for graduation and pay the required fee through BroncoWeb. To complete this online process, a student needs to log on to their BroncoWeb account, select the link to Registrar, then Apply for Graduation.

The *Application for Graduation* form must be submitted no later than the deadline published in the academic calendar for the semester or summer session in which the student intends to complete the certificate or degree requirements. The expected date of program completion is specified as May, August, or December of a particular year. The form initiates required audit processes and reserves an official embossed certificate or diploma, as appropriate.

Students who miss their expected date of graduation twice are placed on inactive status by the Registrar and are required to follow special procedures in order to regain a graduation date.

# Commencement

Candidates for graduate degrees are eligible for participation 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 audit of all program requirements by the Registrar.

# **Program Time Lines**

All time lines associated with graduate certificate and degree 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, and last days for filing program forms, final oral examinations, and submission of final archival copies of 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 a significant 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 all 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.

#### Table 3 Graduate Certificate Quick Guide

#### Apply for a Graduate Certificate Program

Submit online application and fee at www.boisestate.edu/ gradcoll or paper application to Graduate Admission and Degree Services, MG-141.

#### **Graduate Certificate Program Regulations**

Familiarize yourself with this section of the catalog.

#### Deadlines

See the Academic Calendar, in the front of this catalog, for the deadlines of the various forms required to complete a graduate certificate program.

#### Admission to Candidacy

Submit *Application for Admission to Candidacy* to Graduate Admission and Degree Services, MG-141. (See Academic Calendar for deadlines.)

#### **Degree Progress Report**

The Degree Progress Report on BroncoWeb allows you to check your progress toward completion of the program as well as lists the requirements.

#### Apply for Graduation

Submit *Application for Graduation* online through BroncoWeb. (See Academic Calendar for deadlines.)

#### **Culminating Activity Report**

Submit *Report of Culminating Activity Form* to Graduate Admission and Degree Services, MG-141. (See Academic Calendar for deadlines.)

**Credit Requirements** The program of study leading to a graduate certificate must satisfy the following stipulations: (1) the total credit requirement cannot exceed one-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. 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.

**Admission to Candidacy Requirement** A master's student may be admitted to candidacy if he or she is in regular status and has completed the required course work with a grade of C or better and achieved a GPA of at least 3.0 (computed for the set of courses).

**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; extensions of this time limit are prohibited by the Graduate College.

# **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 in the university library. 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.

**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). 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 stipulations in place for second master's degrees (see *Second Master's Degree* below).

**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

#### **Master's Programs Regulations**

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.

**Final Thesis Approvals and Procedures** A thesis that has been successfully defended by the student at the final oral examination must be approved in final form by all members of the supervisory committee and by the Dean of the Graduate College. The thesis in final form must also conform to the standards of the Graduate College as determined by the thesis and dissertation editor. Because the thesis is expected to be available to other scholars and to the general public, the entire thesis must be archived in the university library. The student should refer to "Preparation and Submission of Theses, Projects, and Dissertations" in the Graduate Academic Regulations section.

**Registration for Thesis Credit** A master's student who is engaged in thesis activity during any semester or term, including the semester or term of the final oral examination and the semester or term in which the two archival copies of the thesis are submitted to the Graduate College, must register for at least one credit of 593 Thesis, regardless of the number of 593 Thesis credits already accumulated by the student.

**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, the thesis in final form is fully approved, and the student has met all procedural requirements related to the thesis. A grade of fail (F) is assigned to all 593 credits if the student fails the final oral examination.

# 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. Final Project Approvals and Procedures. Academic Units are responsible for reviewing and archiving projects using procedures approved by the Graduate College. Each academic unit determines the common format and archival method (subject to approval by the Graduate College) that applies to all projects produced in the program. This flexibility is an acknowledgment of the great diversity of projects and the difficulty of preserving them with a system fixed for the entire university. A format and archival method for text-based projects has been established by the Graduate College and is one option available to academic units (see "Preparation and Submission of Theses and Dissertations" in the Graduate Academic Regulations section). Regardless of the procedures adopted for projects by an academic unit, the unit is responsible for filing a Report of Culminating Activity form with the Graduate College as soon as the project is successfully completed.

**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 achieves full approval, 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) must be 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 his/ her last semester when the portfolio, in final form, is expected to achieve full approval. In the event that full approval is delayed, the student may receive a grade of Incomplete. The Incomplete grade must be resolved the following semester or term.

Portfolio Grading. All 592 Portfolio credits are graded either pass (P) or fail (F) and must be reported to the Graduate College on a *Report of Culminating Activity* form.

# **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 programspecific graduate course number or may use university-wide graduate course 600 Assessment with Capstone Course as the required modifier.

# **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 degree, a comprehensive examination cannot be attempted until the student has completed all core courses 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 examination date must be no later than the deadline specified in the academic calendar. In addition, the result of the examination can only be stated as pass or fail and must be reported to the Graduate College on a *Report of Culminating Activity* form.

A student must be registered for at least one credit during the semester or term of the comprehensive examination. This registration requirement may be satisfied by enrollment in any course for academic credit. In some programs the registration requirement is automatically satisfied because the academic unit requires the student to register for 600 Assessment with Comprehensive Examination as the optional modifier. When 600 Assessment is used to represent a comprehensive examination, the result of the examination can only be reported to the Registrar as pass (P) or fail (F).

# **Final Oral Examination**

The Graduate College requires a final oral examination for a master's student only if he or she 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 must occur no later than the deadline specified in the academic calendar for the semester or term of graduation. Announcement of the public presentation to the university community is required and should precede the presentation by at least two weeks.

The defense committee is normally responsible for conducting all three parts of the final oral examination and is identical to the student's supervisory committee. 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, hold the rank of full professor, be a member of the Graduate Faculty, and must be 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. In all cases, the result of the final oral examination can only be reported as pass or fail and must be included on a *Report of Culminating Activity* form.

# Failure of a Comprehensive Examination or Final Oral Examination

A comprehensive examination or final oral examination 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 administratively withdrawn 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 administratively withdrawn 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 graduate dean.

## 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 Graduate Dean. 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

Some academic units have compiled handbooks of procedures for those master's programs 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.

**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. 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

## **Doctor of Philosophy Programs Regulations**

has completed at least 32 but no more than 48 applicable credits exclusive of 693 Dissertation credit. 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 stated as pass or fail and must be reported to the Graduate College on a *Report of Doctoral Comprehensive Examination* form. The academic unit may also record the result on the transcript as pass (P) or fail (F) using 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.

**Final Dissertation Approvals and Procedures** A dissertation that has been successfully defended by the student at the final oral examination must be approved in final form by all members of the supervisory committee, by the chair or dean of the responsible academic unit, and by the dean of the Graduate College. The dissertation in final form must also conform to the standards of the Graduate College as determined by the thesis and dissertation editor. Because the dissertation is expected to be available to other scholars and to the general public, the entire dissertation must be submitted to UMI and must also be available in the university library. The student should refer to "Preparation and Submission of Theses, Projects, and Dissertations" in the Graduate Academic Regulations section.

**Registration for Dissertation Credit** A Ph.D. student who is engaged in dissertation activity during any semester or term, including the semester or term of the final oral examination and the semester or term in which the two archival copies of the dissertation are submitted to the Graduate College, must register for at least one credit of 693 Dissertation, regardless of the number of 693 Dissertation credits already accumulated by the student.

**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, the dissertation in final form is fully approved, and the student has met all procedural requirements related to the dissertation. A grade of fail (F) is assigned to all 693 credits if the student fails the final oral examination.

## **Final Oral Examination**

The final oral examination for a Ph.D. student 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 defense committee must include the supervisory committee plus a nonvoting graduate faculty representative (GFR) appointed by the dean of the Graduate College. At the request of the academic unit responsible for the program, the graduate dean may appoint one additional voting member to the defense committee where this appointee may be from the university or from outside the university. The GFR must hold full rank in the graduate faculty and must be 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. In all cases, the result of the final oral examination can only be reported as pass or fail and must be included on a *Report of* Doctoral Final Oral Examination form.

## Failure of the Comprehensive Examination or Final Oral Examination

A comprehensive examination or final oral examination 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 administratively withdrawn 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 administratively withdrawn 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 graduate dean.

## Handbook of Procedures

Some academic units have compiled handbooks of procedures for doctoral programs for which the unit has responsibility. A copy may be obtained through the graduate program coordinator for the program.

# **Registration Policies, Procedures, and Grades**

Shortly after you have been admitted to a graduate-degree 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 http://www.boisestate.edu.** You may register from your home or office, at an on-campus computer lab, or the Canyon County Center. The Registrar's Office serves as a Help Center for 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 2008 appointments begin March 31, 2008
- Spring 2009 appointments begin October 27, 2008

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

• Summer 2009 open registration begins February 17, 2009.

## **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 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 (including classes and workshops that begin later in the semester) by going through BroncoWeb at http://broncoweb. boisestate.edu not later than tenth 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 http://www.boisestate.edu and select BroncoWeb to complete the process.

## Adding Classes and Dropping Classes

For a short time at the beginning of each semester, enrolled students may add classes to their schedule or drop classes from their schedule.

You may drop and add classes on BroncoWeb (http:// broncoweb.boisestate.edu). For more information about dropping or adding classes, see the *Boise State University Schedule of Classes* or call the BroncoWeb Help Center at 208 426-2932.

Before the semester begins you may add classes to your schedule on BroncoWeb (http://broncoweb.boisestate.edu), without first obtaining the instructor's permission if there is space available in the class. You may continue to add classes from the first day of classroom instruction until the deadline appropriate to the semester or session. (See the academic calendar in the *Boise State University Schedule of Classes* for the exact deadline.)

However, after the fifth day of the semester, you must obtain the instructor's approval to add the class. Instructors may refuse to grant permission if the class is full. They may also refuse permission if your late entry would prevent you from benefitting fully from the class, or prevent other students in the class from doing so. (If you are registering for or adding **graduate** readings and conference, practicum, internship or portfolio or **undergraduate** independent study, challenge, or credit for prior learning, you may do so through the end of the sixth week of the semester.)

You may drop classes from your schedule on BroncoWeb (http://broncoweb.boisestate.edu) through the sixth week of

## Registration Policies, Procedures, and Grades

the semester. (See the academic calendar in the *Boise State University Schedule of Classes* for the exact deadline.) If you drop a class before the tenth day of the semester, the class will not appear on your transcript. However, if you drop a class after the tenth day, your transcript will contain a grade of W for that class. Grades of W will not be used in GPA calculation. Short courses, five week, and eight week block courses have different deadline dates. (See the academic calendar in the *Boise State University Schedule of Classes* for the exact deadline.)

## 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 section on "Repetition of Courses" in section on Graduate Academic Regulations 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.

## Complete Withdrawal from Boise State University

Students who wish to leave the University in GOOD STANDING must drop all their classes via BroncoWeb (http://broncoweb. boisestate.edu). If the complete withdrawal is made after the fee payment deadline and the student has not paid their fees, the student is still responsible for the entire amount of fees incurred plus a \$25.00 administrative processing fee. Extended Studies students can initiate a complete withdrawal via BroncoWeb or by contacting the coordinator at the off-campus location.

Students who are physically unable to drop their classes via BroncoWeb because of hardship or health reasons should telephone or write to the Registrar's Office and request an *Authorization for Complete Withdrawal*. The authorization must be completed, legally signed, and returned by the student requesting the withdrawal within two weeks of the request and by the end of the sixth week of the semester before the student's records can be officially closed for that semester.

Students who do not cancel their registration, completely withdraw prior to the end of the sixth week of the semester, or who fail to complete the course requirements by deadlines discussed previously 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 the chapter on Tuition and Fees. For important information concerning withdrawals for students receiving financial aid, see the heading "Change in Enrollment Status" in the chapter on Financial Aid for Graduate Students.

## 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 tenth day of the semester. (See the *Boise State University Schedule of Classes* for the exact deadline.)

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.

**Note:** For information regarding Administrative Withdrawal from Boise State University, please refer to the chapter on General Policies.



## Grades

Boise State University uses a 4.0 grading scale. Table 4 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 4 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).

		le 4 Grades	
Letter Grade	Meaning	Quality Points per Credit Hour	Used to Calculate GPA
A+	Distinguished work	4	Yes
А	Distinguished work	4	Yes
A-	Distinguished work	3.7	Yes
B+	Superior work	3.3	Yes
В	Superior work	3	Yes
B-	Superior work	2.7	Yes
C+	Average work	2.3	Yes
С	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
Р	Pass: satisfactory work equivalent to C or higher; credits earned	0	No
Ι	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, portfolio, 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.

## 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

Total Quality Points Earned	_	GPA
GPA Units Attempted	=	GPA

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

As a student at Boise State University, you can be enrolled in one of three possible careers—undergraduate, graduate, or applied technology. In calculating your **cumulative GPA**, Boise State 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 of A+ through F in those transferred courses. 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 prior to Fall 1995 use a grade replacement policy. Only the most recent grade is used in calculating the cumulative GPA.
- Courses repeated Fall 1995 through Summer 2001 use a grade averaging policy. Courses repeated are averaged, using both grades in the calculation of the GPA.
- Beginning Fall 2001 and on, courses repeated use a grade replacement policy. Only the most recent grade is used in calculation of the cumulative GPA.
- 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.

All GPA calculations exclude credits for:

- pass/fail courses in which you received a final grade of P; an 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)

### 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. By the end of this specified time, the instructor must submit a grade.

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.

## **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: For Students, Student Account. 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 http://finad.boisestate.edu/sfs.htm.

## Fee Payment Plan

Information regarding deferred fee payment plans may be obtained in Payments and Disbursements, Administration Building, Room 211, 426-1212 or on-line at http://finad. boisestate.edu/sfs.htm

## 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 eight credits per semester. Once you register for eight or more credits, you are required to pay the full tuition and fees shown in Table 5, below.

Table 5 Full-time Graduate Fees, Per Semester (8 credits or more)				
Tuition and Fees	Resident	Nonresident		
Nonresident Tuition	\$0	\$4,288.00		
Institutional Fees*	\$2,752.00	\$2,752.00		
Total (for up to 19 credits)	\$2,752.00	\$7,040.00		
Overload Fee**	\$238.00 per credit hour	\$238.00 per credit hour		
*Does not includes per semester Health Insurance fee that may be waived with proof of other insurance.				

\*\*An overload fee is imposed if you register for more than 19 credits. Each credit over 19 costs the per credit hour cost.

In determining whether you have reached the total of 8 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 8-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 8-credit total, even though you earn no credits by taking the course.

Although 8 credits is considered full time for fee paying purposes, you may be required to enroll in 9 graduate-level credits or more to be eligible for some types of financial aid. (Direct Loan recipients must be enrolled in at least 5 credits that apply directly towards a graduate degree to qualify for a disbursement). Please see Table 1 in the chapter on General Policies.

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 eight credits, your fees are calculated according to the schedule shown in the following Table 6. Among the fees listed in Tables 6 and 7 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 19 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 6 Part-time Graduate Fees, Per Semester or Session (less than 8 credits)			
Semester or Session	Resident per credit	Nonresident per credit	
Summer 2008	\$267.00	\$267.00	
Fall 2008 and Spring 2009	\$285.00	\$360.00*	
Summer 2009	\$280.00	\$355.00*	
*Includes \$75.00 nonresident per credit tuition fee.			

Table 7           Fees for Private Music Lessons		
2 Credits	4 Credits	
\$150	\$300	

These music fees may be waived, however, if you are a music major enrolled for 8 or more credits. 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 tenth 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 \$25.00 administrative fee). If you withdraw after the tenth 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. Please note, also, that 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 grid published on the Registrar's home page and/or in the printed *Boise State University Schedule of Classes*. **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 \$25.00 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://finad. boisestate.edu/images/uvappeal.pdf.

## Student Health Insurance Plan (SHIP)

If you are a **full fee-paying student**, enrolled for 8 or more fee-paying credit hours, you will be enrolled in the University's Student Health Insurance Plan (SHIP). This premium is automatically included in the fee schedule on your bill. You 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 15 and ends on January 14. Spring semester benefits continue from January 15 until August 14.

You may opt-out from participation in SHIP if you have existing health insurance coverage. Since the Fall 2003 semester, the State Board of Education requires full-time students to submit proof of insurance before an exemption can be granted. You must log in to BroncoWeb (http://www.boisestate.edu and select BroncoWeb) and submit the online health insurance waiver application. You must file a waiver every semester that you are enrolled full-time.

If you are a **part-time student**, enrolled in 7 or fewer credit hours, you are not eligible for the Student Health Insurance.

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

**Dependent coverage** is available to your dependents if you are a full time student. In order to purchase dependent coverage, you must also be insured under the Student Health Insurance Plan (SHIP). You may enroll your dependents by completing the enrollment form which can be obtained on the Maksin website at http://www.maksin.com/bsu.shtml, or by contacting Maksin at their toll free number at 1-877-775-5430.

Dependent coverage is based on your enrollment status.

**NOTE:** All students may obtain medical assistance or services at the Health & Wellness Center, 2103 University Drive, Boise, ID 83725 or Counseling Services at Taylor Hall, B103.

## 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 8 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.

- **Q:** When I first enter the university, what determines my residency status?
- A: For the purpose of calculating tuition and fees, your status is determined by your responses to several questions on your application for admission. In general, students are considered residents of Idaho if their parents have resided in Idaho for 12 consecutive months before the first day of classroom instruction and have in fact established a bona fide domicile in this state primarily for purposes other than educational.

- **Q:** Can I appeal Boise State's decision to classify me as a nonresident student?
- **A:** Yes. To do so, obtain a Residency Information form from the Registrar's Office, Administration Building, Room 110. Complete the form and submit it with a letter to the Residency Appeals Committee, according to the instructions provided, by the 15th day of class during the semester in which you are enrolled. Turn all paperwork into the Residency Coordinator, Registrar's Office, Administration Building, Room 110.

## **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 8 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 BSU 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.
- Complete the *Residence Information Form* 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 15 school days after the opening of the semester for which the change in status is requested.
- 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 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.

### Qualifying Criteria for Establishing Idaho Residency for Educational Purposes

- 1. Have one (1) or more parent or parents or court-appointed guardians who are domiciled in the state of Idaho. To qualify under this section, the parent, parents or guardian must have maintained a bona fide domicile in the state of Idaho for at least one (1) year prior to the opening day of the term for which the student matriculates.
- 2. Receive less than fifty percent (50%), or none, of your support from a parent, parents or legal guardians and have continuously resided in the state of Idaho for twelve (12) months preceding the opening day of the term during which you propose to attend BSU and have in fact established a bona fide domicile in this state primarily for purposes other than educational. The establishment of a new domicile in Idaho by a person formerly domiciled in another state has occurred if such person is physically present in Idaho primarily for purposes other than educational for 12 consecutive months and can show satisfactory proof that such person is without a present intention to return to such other state or to acquire a domicile at some other place outside of Idaho. The determination will be based on but not limited to consideration of the following factors:
  - a. Registration and payment of Idaho taxes or fees on a motor vehicle, mobile home, travel trailer, other item of personal property for which state registration and the payment of a state tax or fees is required.
  - b. Filing of Idaho state income tax returns.
  - c. Permanent full-time employment or the hourly equivalent thereof in the state of Idaho.
  - d. Registration to vote for state elected officials in Idaho at a general election.

- e. Purchase of a house or other real estate which is or will become your permanent residence.
- f. Obtain Idaho driver's license or state identification card.
- g. Establishment and duration of account records with state financial institutions.
- h. And other similar factors indicating intent to be domiciled in Idaho.
- 3. Graduate from an accredited secondary school in the state of Idaho and enter BSU the term immediately following such graduation regardless of the residency for the student's parent or guardian. The individual must be a citizen of the United States of America, have permanent resident status, or hold "refugee-parolee" or "conditional entrant" status with the United States Immigration and Naturalization Service to qualify under this criteria.
- 4. Be married to a person who is classified, or is eligible for classification, as a resident of the state of Idaho for the purposes of attending a college or university. Request for classification under this criteria will require that a copy of the marriage certificate be filed, and the qualifying spouse may be required to submit proof of residency in the form of an affidavit.
- Be a member of the armed forces of the United States, stationed in the state of Idaho on military orders. A certified copy of the military orders may be requested in support of this qualification for residency classification.
- 6. Have a parent or guardian who is a member of the armed forces and stationed in the state of Idaho on military orders, or has Idaho as their "home of record," and receive fifty percent (50%) or more of support from the parent or legal guardian. The student, while in continuous attendance, shall not lose that residency when the student's parent or guardian is transferred on military orders. A certified copy of the military orders may be requested in support of this qualification for residency classification.
- 7. Be separated, under honorable conditions, from the United States armed forces after at least two (2) years of service and at the time of separation designate the state of Idaho as your intended domicile or have Idaho as the home of record in service and enter a college or university in the state of Idaho within one (1) year of the date of separation. A certified copy of the DD-214 separation papers may be requested in support of this qualification for residency classification.
- 8. Have been domiciled in the state of Idaho, have met the qualifications for residency and have been away from the state for a period of less than one (1) calendar year and have not established legal residence elsewhere provided a twelve (12) month period of continuous residency had been established immediately prior to departure.
- 9. Be a member of any of the following Idaho Native American Indian tribes, regardless of current domicile. Members of the following Idaho Native American Indian tribes, whose traditional and customary tribal boundaries included portions of the state of Idaho, or whose Indian tribe was granted reserved lands within the state of Idaho: (1) Coeur d'Alene tribe; (2) Shoshone-Paiute tribes; (3) Nez Perce tribe; (4) Shoshone-Bannock tribes; (5) Kootenai tribe.

### **Definitions:**

**Resident student:** Any student who meets the criteria specified in items 1 - 9 above.

**Nonresident student:** Any student who does not qualify as a "resident student" under the provisions of items 1-9 listed above and includes:

- A. A student attending BSU with the aid of financial assistance provided by another state or governmental unit or agency thereof, such nonresidency continuing for one (1) year after the completion of the semester for which such assistance is last provided.
- B. A person who is not a citizen of the United States of America, who does not have permanent resident status, or does not hold "refugee-parolee" or "conditional entrant" status with the United States Immigration and Naturalization Service.

**Domicile:** An individual's true, fixed and permanent home and place of habitation. It is the place where that individual intends to remain, and to which that individual expects to return when that individual leaves without intending to establish a new domicile elsewhere.

**One (1) year:** twelve (12) consecutive months immediately preceding the opening date of the term for which resident status is requested.

**Armed Forces:** the U.S. Army, Navy, Air Force, Marine Corps, and Coast Guard. Uniformed services such as the National Guard or other reserve force do not qualify for residency requirements.

Two (2) years of service: two (2) years of active duty service. Reserve duty status does not qualify for residency requirements.

# **Financial Aid for Graduate Students**

## **Graduate Assistantships**

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.

Most departments award teaching or research assistantships that include a stipend and a waiver of fees. In addition, nonresident 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 http://www.boisestate. edu/gradcoll/0004.html, from the department in which you are applying, or from the Graduate College, B-117.

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 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.ed.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.ed.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.
  - Apply using the paper FAFSA. The paper FAFSA or a FAFSA form that you can print from the federal website (www.FederalStudentAid.ed.gov) is available for students who prefer to apply by mail. However, students are warned that filing a paper FAFSA may add weeks to the time required to process an application.

### 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. **Submit verification materials, if requested.** The Financial Aid 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. Duplicate copies of W-2 forms may be requested from your employer(s).
  - 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.

Be aware of the following deadlines. March 15 Deadline for 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**

3.

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 or 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 Programs 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.

## **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 9, below, shows estimated repayment schedules for Perkins Loans of various amounts.

Table 9Federal 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 rate on these loans is currently up to, but is subject to changes made in Congress. To apply, complete the FAFSA, available at www.fafsa.ed.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 debt management session (http://financialaid.boisestate.edu/loancounseling.htm) 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. There are terms and conditions under which students receiving this assistance may obtain deferral of the repayment of the principal and interest of the loan for service under the Peace Corps Act (22 U.S.C.2501); service under the Domestic Volunteer Service Act of 1973 (42 U.S.C.4951); or comparable service as a volunteer for a tax-exempt organization of demonstrated effectiveness in the field of community service. Please see the exit counseling information link on the following web site for more information: http://financialaid. boisestate.edu/loancounseling.htm.

Table 10, 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 10 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 6 percent for subsidized loans, and 6.8 percent for unsubsidized loans, \$20,500 through the Federal Direct (Stafford) Loan program plus any other sources of aid. 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 Alumni Center at 1173 University Drive (corner of Grant and University Drive), by calling 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 (3.00 GPA) who are not residents of the state of Idaho, who are enrolled full-time, and are pursuing a major designated as "high-tech" by the Idaho State Board of Education.

The eligible majors are: Biology, Civil Engineering, Computer Engineering, Computer Science, Earth Science, Electrical Engineering, Geology, Geophysics, Geosciences, Health Sciences, Hydrological Sciences, Instructional and Performance Technology (on-campus only), Materials Science and Engineering, Mathematics, Mathematics Education, MBA in Information Technology Management, Mechanical Engineering, Raptor Biology, and Technical Communications (on-campus only).

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 Graduate College website (http://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.pdf.

### 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 209, 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 April 1.

## 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 209. 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" section).

**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 tenth 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/cwd.htm.

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/ cwd.htm. 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. Your academic progress is considered satisfactory if you:

• enroll for the purpose of obtaining a degree or certificate (you must be admitted by the Graduate College as well as your specific program).

- maintain a minimum of a 3.0 cumulative Boise State GPA.
- 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 (This requirement is monitored following each term of enrollment).

In addition to the above requirements, you must satisfactorily complete at least 1 credit during any term in which you receive federal or state financial aid. Review the complete satisfactory progress policy at http://financialaid.boisestate.edu/forms/ sappolicy.pdf.

## Satisfactory Academic Progress Review

The University reviews most financial aid files annually (at the end of spring term). Students who are in programs of one year or less are reviewed more often. In addition, the term completion portion is reviewed at the end of summer and fall. 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 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. If your appeal is granted, the exemption from this policy will remain in effect for only a short time (usually no longer than one semester). Appeal forms may be downloaded from the web at http://financialaid.boisestate.edu/forms/ sappolicy.pdf.

## 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 is available through the University Housing Office, which administers housing in the residence halls located on campus and five apartment complexes located within walking distance from campus. This chapter describes the university housing available at Boise State University, provides application and cost information for the residence halls and university apartments, 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 Boise State University Student Handbook, the Residence Hall & Dining Agreement, University Housing Handbook, and the Student Code of Conduct.

## **Graduate Housing**

University Housing has identified specific communities that are conducive to meeting the demands of being a graduate student. Typically, graduate students opt to live on the graduate student floor of the University Suites or in one of the apartment communities. 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. Coin-operated laundry facilities are located on-site. Tenants are responsible for the cost of electricity. Water, sewer, trash, and Internet are provided.

University Park consists of two and three bedroom apartments. Each unit has a wall-unit air conditioning/ heating system, stove, and refrigerator. Coin-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.

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

## **Application and Cost Information**

To apply for on-campus housing with the University Suites, go to http://housing.boisestate.edu. A \$250 reservation deposit is due at the time of application. Students wishing to cancel their application for housing must do so by July 25 in order to have their deposit refunded minus a \$25 administrative fee. The 2008-2009 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.

To apply for an apartment, visit the University Housing website at http://housing.boisestate.edu. The application requires a non-refundable \$25.00 processing fee. 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 208 447-1002.

**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 a student to a space in University Suites (unless space is requested and available in traditional housing facilities). By doing so, Boise State University will make every effort to accommodate the preferences applicants have indicated on their application.

## 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 offers employment and job-search assistance (including instruction in writing resumes and cover letters and interview training), career assessments and decision making, and coordinates the university's internship program. The Career Center also hosts annual events including Fall and Spring Career/Job Fairs, Graduate and Professional School Day, and the Student Employment Fair.

Through BroncoJobs (the university's web-based, job-referral system), students and alumni can schedule on-campus interviews with employers and search for career employment opportunities, internships, and student employment opportunities.

The Career Center is located in the Alumni Center at 1173 University Drive. For more information, please contact us at 208 426-1747 or http://career.boisestate.edu/.

**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, 208 426-3492.

**Writing Center** The Writing Center is a free service 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: www.boisestate. edu/wcenter.

Our normal hours:

- Monday through Thursday, 9:00 A.M. to 6:00 P.M.
- Friday, 9:00 A.M. to 4:00 P.M.
- For evening and weekend hours, please call.

If you cannot come in to the Center, we do offer e-mail consultations for writers. Visit our web page for more information on how to send us your paper.

The Boise State Writing Center–Make Us Central to Your Writing!

## Health, Wellness and Counseling Services

ALL Boise State University students are eligible to utilize the Health, Wellness and Counseling Services, regardless of their health insurance coverage status.

**Counseling Services** The Counseling Services primary purpose is to help students deal more effectively with concerns that influence their pursuit of personal and academic goals. The Counseling Services is staffed with psychologists, counselors, and graduate counseling students. Counseling Services offers short-term individual and couples counseling, consultation and crisis intervention. Counseling Services assists students in coping with interpersonal conflicts, test anxiety, stress, depression, and relationship, social and emotional concerns. All registered students are eligible for counseling services and there is no cost for students enrolled in SHIP. For students with private insurance, there is no charge for the first session and subsequent sessions are charged at \$10 each and posted to the student's account. Spouses/ partners of students are eligible if seen with the enrolled student. Fee waivers are available for students in need. To make an appointment, call 208-426-1661 or 426-1601 between 8:00 A.M. and 5:00 P.M., Monday through Friday, or stop by Counseling Services located in Taylor Hall, B103.

Health/Medical Services All students may receive outpatient medical care at the Health and Wellness Center, located at 2103 University Drive, 208 426-1459. The Health Center is equipped to address most of the student's outpatient health care needs, and makes referrals to community providers for more 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 Health Center. Located directly across University Drive from the Public Affairs/Arts West Building, the clinic is open from 8:00 A.M. to 5:00 P.M., Monday and Wednesday through Friday, and 9:00 A.M. to 5:00 P.M. on Tuesday. Spring semester students not enrolled in summer school are eligible for summer services at a minimal cost.

**Student Health Insurance Plan (SHIP)** The Health, Wellness, and Counseling Services also 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 on how to be savvy consumers of health care, focusing on how to effectively access and utilize all health-related services and insurance/financing options.

**Insurance Coverage** All full-fee-paying students (those enrolled for 8 or more credit hours), 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 15th and ends on January 14th. Spring semester benefits continue through August 14th. Student health insurance benefits are available to spouses and dependents. **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. Waivers must be filed for both the fall and spring semesters by their respective deadlines. Please go to: http://www.boisestate. edu/healthservices/insurance/ to review the comparability requirements. If your alternative health insurance plan meets these comparability requirements, please log on to broncoweb.boisestate.edu to submit your SHIP waiver request (MUST be filed online). Log in to your BroncoWeb account, proceed to Student Finances then proceed to Health Insurance Waiver.

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

Wellness/Health Promotion Services Health promotion focuses on primary prevention, implementing proven population-based risk reduction strategies for a diverse student population. Programming focuses on the overall education of students in the areas of lifestyle and behavior change that promote physical, psychological, spiritual, and social health. Resources are available to all students on-line and in the Health & Wellness Center and the Student Recreation Center on campus.

## **Other Student Services**

Listed below are a number of services and programs provided to students, staff, and faculty, including services offered by the Student Services Office, the Veterans Services Office, and the Women's Center.

**Children's Center** The University Children's Center provides care for children of students enrolled for six or more credits. Operating hours are 7:00 AM - 5:30 PM, five days a week during fall and spring semesters and thirteen weeks of summer session. Care is provided for children six weeks — five years of age. It is located at the corner of Beacon and Oakland Streets. The Center is licensed through the City of Boise and accredited through the National Academy of Early Childhood Programs. Financial assistance is available. For more information and rates telephone 208 426-4404.

**Cultural Center** Located on the second floor of the Student Union Building, 208 426-5950, the Cultural Center is a place where students can meet in a relaxed, friendly atmosphere. The Cultural Center 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 Cultural Center also provides a forum for workshops aimed at helping students learn the skills they need for a successful experience at Boise State University.

**Disability Resource Center** is 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 and extra curricular programs. Disability Services 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
- registration assistance
- interpreter services
- · conversion of print material into accessible formats
- help setting up note taking services
- exam accommodations
- · assistive/adaptive technology

For further information, please visit: http://disabilityresourcecenter.boisestate.edu.

**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.

**International Students** The International Programs Office, located at 1136 Euclid Avenue, 208 426-3652 advises all international students, assisting with orientation, immigration regulations, visa issues, and cultural adjustment. Upon arrival in Boise, new international students must report to the International Programs Office and attend the international student orientation. This office serves as a central source of information for all international students.

**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. Tutorial and work-study programs for veterans and dependents are also coordinated through the Veterans Services Office.

**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" women students, support groups, educational workshops, academic internships, a resource lending library, supportive referrals, a single parents club, publication of a monthly newsletter, and sexual assault crisis response. The center sponsors educational programs such as Eve Ensler's play, The Vagina Monologues, Women's History month activities, and violence prevention initiatives. For a full list of programs and services visit the website at http://womenscenter.boisestate. edu or stop by the center, located at the corner of Lincoln and University Drive, 208 426-4259.

# **College of Arts and Sciences**

### **Dean: Martin Schimpf**

### Associate Dean: Helen Lojek

Education Building, Room 601 Telephone 208 426-1414 FAX 208 426-3006

## **General Information**

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

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

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

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

## **Graduate Programs**

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

- art education (master of arts); visual art (master of fine arts)
- biology (master of arts and master of science)
- creative writing (master of fine arts)
- earth science (master of science)
- mathematics (master of science)
- mathematics education (master of science)
- English, education, rhetoric and composition (master of arts)

- geology (master of science); GIS (graduate certificate)
- geophysics (doctor of philosophy and master of science)
- geosciences (doctor of philosophy)
- interdisciplinary studies (master of arts and master of science)
- music education, pedagogy, performance (master of music)
- raptor biology (master of science)
- technical communication (master of arts, graduate certificate)

## **Activities**

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

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

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

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

# **Department of Art**

**Chair: Richard Young** Liberal Arts Building, Room 252

Telephone 208 426-4070 FAX 208 426-1243 e-mail: artdept@boisestate.edu/art/

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

Adjunct Graduate Faculty: Karen Brown

## **Graduate Degrees Offered**

- Master of Fine Arts, Visual Art
- 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 Telephone 208 426-3450 e-mail: cshurtle@boisestate.edu

## **Admission Requirements**

Fall admission only. To be considered as a graduate student in the MFA program, applicants must possess a B.A., B.F.A., or a M.A. degree in Art from an accredited institution and have and maintain a minimum grade point average of 3.0. Applicants must also have completed a minimum of 12 credits of undergraduate art history prior to taking courses for graduate credit. Undergraduate coursework in modern and/or contemporary art history 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 on line at the Graduate College website. This form must be submitted to Graduate Admissions at least 4 weeks prior to January 15.

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

- A portfolio of at least 20 labeled slides of a recent body of work with an accompanying slide list, and an artist statement that addresses the work submitted. Other documentation formats (CD-Rom, DVD, or VHS) are accepted ONLY for Alternative Media applicants whose work originates in any of these media.
- Three letters of recommendation from professionals in the field.

- A statement of purpose outlining your educational and professional background, the overall objectives in your studio work (including intended area of emphasis), why you want to pursue an M.F.A., and why you are interested in the program. If you are applying for a Graduate Assistantship include a separate statement explaining your interest in the award and your qualifications for receiving it.
- Self-addressed, stamped envelope.

## **Degree Requirements**

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 Telephone 208 426-3873 e-mail: KathleenKeys@boisestate.edu http://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 degreeseeking students (see Applying as a Degree-Seeking Student in this catalog). Students must first be admitted to the Graduate College and have official transcripts from all institutions previously attended submitted to Graduate Admission and Degree Services, MG 141, Boise State University, Boise, ID 83725-1110.

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

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

### College of Arts and Sciences Department of Art



# Course Offerings

#### ART 501 THE FINE ARTS: ANALYSIS AND APPRECIATION IN THE EDUCATIONAL PROGRAM (3-0-3)(S)(Alternate

**years).** Emphasis will be placed on learning about and applying the psychological and aesthetic theories commonly used in the creation, appreciation, and response to the fine arts in American educational settings. Course activities include attending a variety of arts presentations. Students will develop a researched, written unit of arts curriculum appropriate for educational use. PREREQ: Graduate status or PERM/INST.

### ART 521 TEACHING THROUGH EXPERIMENTAL ART MEDIA

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

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

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

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

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

ART 576 STUDIO PRACTICES (0-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.

ART 578 SELECTED TOPICS-ART EDUCATION ART 579 SELECTED TOPICS-COMPUTER GRAPHICS ART 580 SELECTED TOPICS-DRAWING ART 581 SELECTED TOPICS-PAINTING ART 582 SELECTED TOPICS-ART METALS ART 583 SELECTED TOPICS-SCULPTURE ART 584 SELECTED TOPICS-PHOTOGRAPHY ART 585 SELECTED TOPICS-CERAMICS ART 586 SELECTED TOPICS-PRINTMAKING ART 587 SELECTED TOPICS-GRAPHIC DESIGN ART 588 SELECTED TOPICS-ART HISTORY BT 500 DB ACTICIUM(INTERNSUID, (2.0.2)

ART 590 PRACTICUM/INTERNSHIP (3-0-3)

ART 591 PROJECT (6 credits)

ART 594 WORKSHOP (1-3 credits)

ART 595 READING AND CONFERENCE (1-2 credits)

ART 596 INDEPENDENT STUDY (1-3 credits)

**ART 597 SPECIAL TOPICS** 

## College of Arts and Sciences Department of Biological Sciences

# Department of Biological Sciences

**Chair: James Belthoff** 

Science/Nursing Building, Room 100 Telephone 208 426-3262 FAX 208 426-1040 http://www.boisestate.edu/biology/

**Graduate Faculty:** Marc Bechard, James Belthoff, Alfred Dufty, Kevin Feris, Jennifer Forbey, Greg Hampikian, Julie Heath, Cheryl Jorcyk, Peter Koetsier, James Long, Kristen Mitchell, James Munger, Steven Novak, Julia Thom Oxford, Ian Robertson, Troy Rohn, Marcelo Serpe, James Smith, Juliette Tinker, Merlin White, Denise Wingett, GongXin Yu

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

## **Graduate Degrees Offered**

- Master of Arts in Biology
- · Master of Science in Biology
- Master of Science in Raptor Biology

## **General Information**

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

## **Application and Admission Requirements**

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

- 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 \$55 application fee. Please submit the application **prior** to submitting any additional items. Apply online at www.boisestate. edu/gradcoll.

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

Individuals admitted to **Regular Status** as graduate students in biology or raptor biology typically have:

- an undergraduate GPA of at least 3.00 on a 4-point system;
- results that average in the 50th or higher percentile in the verbal, quantitative, and analytical writing portions of the GRE exam;
- an undergraduate degree in biology or a closely related field.

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

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

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

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

### College of Arts and Sciences Department of Biological Sciences

## **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 biologybased 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/Nursing Building, Room 226 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 <b>OR</b> 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 presentation 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 <b>OR</b> 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.	29
TOTAL	33

## Master of Science in Biology

**Graduate Program Coordinator:** Ian Robertson Science/Nursing Building, Room 226 Telephone 208 426-2394 e-mail: iroberts@boisestate.edu

Master of Science in Biology	
Course Number and Title	Credits
BIOL 501 Biometry	4
BIOL 598 Graduate Seminar <b>OR</b> 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/Nursing Building, Room 226 Telephone 208 426-2394 e-mail: iroberts@boisestate.edu

Master of Science in Raptor Biology	
Course Number and Title	Credits
BIOL 501 Biometry	4
BIOL 598 Graduate Seminar <b>OR</b> 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

## **Course Offerings**

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

### BIOL-BIOLOGY

BIOL 310G PATHOGENIC BACTERIOLOGY (2-6-4)(S)

**(Odd years).** 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 344G MOLECULAR AND CELL BIOLOGY LABORATORY

College of Arts and Sciences

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**(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 401G 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 412G GENERAL PARASITOLOGY (2-3-3) (Offered

**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 415G 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 420G IMMUNOLOGY (3-0-3) (F).** Principles of immunology, host defense mechanisms, the immune response, immune disorders, serology, and related topics. PREREQ: BIOL 301.

### BIOL 445G HUMAN GENETICS (3-0-3)(S)(Offered

**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 501 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 equivalent, or PERM/INST.

**BIOL 502 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 503 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 501 or PERM/INST.

**BIOL 504 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 505 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 506 RAPTOR ECOLOGY (3-0-3) (S). Theoretical ecology as applied to birds of prey. Strategies of reproduction, habitat

### College of Arts and Sciences Department of Biological Sciences

selection, foraging and spacing; theory of competition and predatorprey interactions; niche theory and community structure; raptor management. PREREQ: BIOL 323 or equivalent, 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 517 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 401-401G (or equivalent) or PERM/INST.

**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 501, or PERM/INST.

**BIOL 526 INSECT ECOLOGY (3-0-3) (S) (Even years).** An indepth 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 528 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 529 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 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 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.

**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 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 191-192.

**BIOL 550 SCIENTIFIC 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.

### 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 AOUATIC 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. PREREO: 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.)

### **BOT-BOTANY**

### **BOT 302G PLANT ANATOMY AND MICROTECHNIQUE**

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

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

### **BOT 311G PLANT DIVERSITY AND EVOLUTION**

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

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

BOT 401G 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.

### College of Arts and Sciences Department of English

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 400G 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 403G(KINES 403G) 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 KiINES or ZOOL credit but not both. PREREQ: BIOL 191-192 or BIOL 227-228 or PERM/INST.

**ZOOL 421G 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 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 509 GENERAL AND COMPARATIVE PHYSIOLOGY** (3-3-4) (S). Physiological principles common to all forms of animal life are discussed. Physiological adaptations required to live in a variety of environments are presented. PREREQ: ZOOL 230, CHEM 317 or PERM/INST.

**ZOOL 515 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 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 535 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.

# **Department of English**

### Department Chair: Michelle Payne

Associate Chair: Devan Cook Liberal Arts Building, Room 228 Telephone 208 426-3426 FAX 208 426-4373 http://english.boisestate.edu/

**Graduate Faculty:** Bruce Ballenger, John Battalio, Ann Campbell, Devan Cook, Martin Corless-Smith, Jon P. Dayley, Matthew C. Hansen, Janet Holmes, Daryl Jones, Helen Lojek, Mike Markel, Carol A. Martin, Michael Mattison, Roger Munger, Jacqueline O'Connor, Steven Olsen-Smith, Michelle Payne, Tom Peele, Tara Penry, Bruce Robbins, Mary Ellen Ryder, Rena Sanderson, Gail Shuck, Tom Trusky, Karen Uehling, Jan Widmayer, Mitchell Wieland, Jeffrey Wilhelm, Russell Willerton, Linda Marie Zaerr

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

## **Graduate Degrees Offered**

- Master of Fine Arts in Creative Writing
- Master of Arts in English, English Education
- Master of Arts in English, Literature
- Master of Arts in English, Rhetoric and Composition
- 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 Telephone 208 426-2413 e-mail: mfacwp@boisestate.edu http://www.boisestate.edu/english/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. A second literary publication, *cold drill*, is run entirely by M.F.A. students, and offers extensive experience in designing, managing, and editing a literary magazine. Students can also gain editing experience working for Ahsahta Press, a nationally recognized publisher of poetry. Established in 1974, Ahsahta Press publishes up to three volumes each academic year. The book arts program offers additional opportunities in design and publishing.

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

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

## **Application and Admission Requirements**

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

- 1. A writing sample consisting of thirty manuscript pages of fiction or nonfiction or fifteen poems, sent directly to the Director of Creative Writing.
- 2. A Bachelor of Arts in English. However, an applicant may 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 M.F.A. program.
- 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. Scores for the Graduate Record Examination (GRE), sent to the Graduate Admissions Office. The

applicant should score at least 500 on the Verbal Section of the GRE. Scores on sections other than the Verbal Section are for information purposes only.

6. 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 ENGL 523 Fiction Writing Workshop ENGL 524 Creative Nonfiction Writing Workshop Students are admitted into the program in one genre of concentration. Four workshops must be taken in this declared genre.	12
<ul> <li>MFA Courses:</li> <li>ENGL 502 Teaching Creative Nonfiction, Poetry, and Fiction Writing</li> <li>ENGL 507 Small Press Production</li> <li>ENGL 508 Writing, Editing, and Designing for Professional Advancement</li> <li>ENGL 509 Book Arts</li> <li>ENGL 532 Form and Theory of Poetry</li> <li>ENGL 533 Form and Theory of Fiction</li> <li>ENGL 534 Form and Theory of Creative Nonfiction Writing</li> <li>ENGL 590 Internship</li> <li>Students must take at least three courses; additional courses may be applied towards English Department Electives.</li> </ul>	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
<b>Electives</b> : Graduate courses, any discipline. Note: 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 Telephone 208 426-1215 e-mail: matthewhansen@boisestate.edu http://english.boisestate.edu/grad/

## **General Information**

The graduate program offered by the Department of English 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 includes three 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, English Education, is designed for students who wish to become certified to teach English in secondary schools and who already have an undergraduate degree in English studies or who have taken a significant number of undergraduate English courses after receiving their baccalaureate degree in another field;
- 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 on-line 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 \$9,600. 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. The applicant must score at least 500 on the Verbal Section of the GRE. Scores on sections other than the Verbal Section are for information purposes only.
- 4. An essay of from five hundred to seven hundred words explaining the applicant's goals in pursuing graduate study in English, sent directly to the Director of the M.A. in English.
- 5. A writing sample of 8 to 10 pages, preferably academic writing completed within the past two years. For students who completed their undergraduate work more than one year before their application, professional writing of similar length, such as, but not limited to a grant proposal, a newsletter, or a business report may be submitted to fulfill this requirement. The applicant's writing sample, in all cases, should be accompanied by a brief statement of the context for which the writing was done. This writing sample should be sent directly to the Director of the M.A. in English.
- 6. Three letters of recommendation from people who know the applicant's academic work, sent directly to the Director of the M.A. in English.

## Master of Arts in English, English Education

**Director M.A. in English:** Matthew C. Hansen Liberal Arts Building, Room 205 Telephone 208 426-1215 e-mail: matthewhansen@boisestate.edu http://english.boisestate.edu/grad/

## **Degree Requirements**

Master of Arts in English, English Education	า
Course Number and Title	Credits
The English Education emphasis offers a combination of English teaching methods courses, English electives, and College of Education master's level courses leading to certification for Secondary English teaching.	
Required courses in English: ENGL 500 Research Methods in Literary Studies <b>OR</b> ENGL 554 Introduction to Research Methods in Rhetoric and Composition	3
ENGL 501 The Teaching of Writing ENGL 580 English Teaching: Writing, Literature, and Language	3 3
ENGL 581 Literature for Use in Junior and Senior High Schools	3
English Electives: Courses to be selected from graduate offerings in Literature, Linguistics, English Education, Rhetoric and Composition, Creative Writing, and Technical Communication.	6
Culminating Activity. Complete ONE of the following ENGL 591 Project ENGL 593 Thesis ENGL 600 Assessment [Comprehensive Examination]	3
College of Education graduate courses: ED-CIFS 507 Foundations of American Education ED-CIFS 508 Learning and Development of Students ED-CIFS 509 Curriculum, Instruction, and Assessment in Grades 6-12 ED-LTCY 544 Content Literacy in Secondary Schools	3 3 3 3
ED-SPED 550 Secondary Exceptional Needs	3
TOTAL	36
NOTE: Additional College of Education courses not included in the Master of Arts, English Education degree, but required for Idaho teaching certification: ED-TECH 202 Educational Technology ED-CIFS 561 Professional Year—I ED-CIFS 550 Seminar Professional Year II—ED-CIFS 565 (Junior High) <b>OR</b> ED-CIFS 566 (Senior High)	3 1-3 3 10

## Master of Arts in English, Literature

Director M.A. in English: Matthew C. Hansen Liberal Arts Building, Room 205 Telephone 208 426-1215 e-mail: matthewhansen@boisestate.edu http://english.boisestate.edu/grad/

## **Degree Requirements**

Master of Arts in English, Literature	
Course Number and Title	
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 ENGL 561 Theories of Rhetoric and Composition OR ENGL 588 Survey of Critical Theory ENGL 510 Seminar in Major American or English Writer	3 3 3
ENGL 530 Studies in a Literary Period 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 Nineteenth-Century English Literature Studies in Nineteenth-Century American Literature Studies in Twentieth-Century American Literature Studies in Twentieth-Century Postcolonial Literature in English	6

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	Master of Arts in English, Rhetoric and Composi
15	Rhetoric and Composition Electives. Courses to selected from the following: ENGL 563 The Theory and Teaching of Basi Writing ENGL 567 Grammar and the Teaching of Wr Theory and Practice ENGL 568 The Essay Tradition ENGL 583 Selected Topics in Rhetoric and Composition
3-6	This course may be taken with different for 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 Inst Writing Center Theory and Practice Tutoring in the Writing Classroom
	<ul> <li>Rhetoric, Composition, and New Media Feminism and Composition</li> <li>ENGL 590 Practicum/Internship 1-3 credits</li> <li>English Electives:</li> <li>To be selected from graduate offerings in Lite Linguistics, Rhetoric and Composition, Creat</li> <li>Writing and English Education. The electives include ENGL 598 Seminar for Teaching Assi maximum of six credits of ENGL 400G course a maximum of three credits of independent v ENGL 595, ENGL 596, and ENGL 696.</li> </ul>
33-36	Culminating Activity:
	3-6

## Master of Arts in English, **Rhetoric and Composition**

Director M.A. in English: Matthew C. Hansen Liberal Arts Building, Room 205 Telephone 208 426-1215 e-mail: matthewhansen@boisestate.edu http://english.boisestate.edu/grad/

## **Degree Requirements**

Master of Arts in English, Rhetoric and Composition	
Course Number and Title	Credits
Required courses:	
ENGL 554 Research Methods in Rhetoric and	3
Composition	
ENGL 561 Theories of Rhetoric and Composition	3
— continued —	

Rhetoric and Composition Electives. Courses to be selected from the following:12ENGL 563 The Theory and Teaching of Basic Writing11ENGL 567 Grammar and the Teaching of Writing: Theory and Practice11ENGL 568 The Essay Tradition11ENGL 583 Selected Topics in Rhetoric and Composition11This 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 Composition11Argument and Academic Writing Rhetoric and Ethics Cultural Studies and Composition11Adult Learners and Writing/Literacy Instruction Writing Center Theory and Practice Tutoring in the Writing Classroom Rhetoric, Composition, and New Media Feminism and Composition, 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 696.12Culminating Activity: ENGL 591 Project OR ENGL 592 Portfolio OR ENGL 593 Thesis3TOTAL33	Master of Arts in English, Rhetoric and Composition (conti	nued)
ENGL 563 The Theory and Teaching of Basic WritingENGL 567 Grammar and the Teaching of Writing: Theory and PracticeENGL 568 The Essay TraditionENGL 583 Selected Topics in Rhetoric and CompositionThis 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 CompositionArgument and Academic Writing Rhetoric and Ethics Cultural Studies and CompositionAdult Learners and Writing/Literacy Instruction Writing Center Theory and Practice Tutoring in the Writing Classroom Rhetoric, Composition, and New Media Feminism and CompositionEnglish Electives:12To be selected from graduate offerings in Literature, Linguistics, Rhetoric and Composition, 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 six credits of ENGL 400G courses, and a maximum of three credits of independent work in ENGL 595, ENGL 596, and ENGL 696.3Culminating Activity: ENGL 593 Thesis3	Rhetoric and Composition Electives. Courses to be	12
WritingENGL 567 Grammar and the Teaching of Writing: Theory and PracticeENGL 568 The Essay TraditionENGL 583 Selected Topics in Rhetoric and CompositionThis 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 creditsEnglish Electives: To be selected from graduate offerings in Literature, Linguistics, Rhetoric and Composition, 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.Culminating Activity: ENGL 593 Thesis3	selected from the following:	
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## Master of Arts in **Technical Communication**

Director of Technical Communication: Mike Markel

Liberal Arts Building, Room 234 Telephone 208 426-3088 or 426-1246 e-mail: mmarkel@boisestate.edu http://www.boisestate.edu/techcomm

## **General Information**

Technical communication is a humanistic discipline in which people create, shape, and communicate technical information so that other people can use it safely, effectively, and efficiently. Although most of the courses in the program involve hightechnology 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.)	

Alternative Program 1 (continued) ENGL 511 Introductory Seminar in Technical 3 Communication ENGL 512 Technical Rhetoric and Applications 3 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 ENGL 517 Oral Communication for Technical 3 Communicators ENGL 521 Topics in On-screen Document Production 3 3 ENGL 590 Internship ENGL 591 Project OR 3 ENGL 593 Thesis

Master of Arts in Technical Communication

TOTAL	33
technical communication)	
Electives (no more than 3 credits from outside	3

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
Electives (no more than 3 credits from outside technical communication)	6
TOTAL	33

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

You may petition your committee to be exempted from up to six hours of required course work. This petition will be evaluated on the basis of your demonstrated experience and professional competence. If you receive an exemption, you will substitute an equivalent number of elective credits. (Note that

### College of Arts and Sciences Department of English

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 Telephone 208 426-3088 http://www.boisestate.edu/techcomm e-mail: mmarkel@boisestate.edu

## **General Information**

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

## **Application and Admission Requirements**

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

## **Application Procedures**

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

## **Certificate Requirements**

Graduate Certificate in Technical Communication	
Course Number and Title	
Required Courses	9
ENGL 512 Technical Rhetoric and Applications 3	
ENGL 513 Technical Editing3	
ENGL 514 Technical Communication Ethics3	
Elective Courses	6
Select two of the following:	
EDTECH 574 Instructional Software Development	
and Courseware Design 3	
ENGL 511 Introductory Seminar in Technical	
Communication3	
ENGL 515 Visual Rhetoric and Information	
Design3	
ENGL 516 Topics in Print Document Production 3	
ENGL 517 Oral Communication for Technical	
Communicators 3	
ENGL 518 Writing Software Documentation3	
ENGL 519 Technical Publications Management 3	
ENGL 521 Topics in On-screen Document	
Production	
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.	
TOTAL	15

## **Course Offerings**

### ENGL-ENGLISH

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

### ENGL 405G PRINT DOCUMENT PRODUCTION (3-0-3)(F/S).

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

### ENGL 406G ADVANCED POETRY WRITING (3-0-3)(F/S).

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

### ENGL 407G ADVANCED FICTION WRITING (3-0-3)(F/S).

Intensive work in writing and critiquing fiction. Students seeking graduate credit will produce a greater quantity and higher quality of original work, will have a separate and more extensive reading list,

### College of Arts and Sciences Department of English

the life of the author and its relation to his/her work, the society and culture of the times, his/her place and stature in the genres in which he/she worked, his/her use or disregard of tradition, as well as an investigation of contemporary criticism and critical evaluation since the writer's time. Repeatable for credit. PREREQ: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.
 ENGL 511 INTRODUCTORY SEMINAR IN TECHNICAL COMMUNICATION (3-0-3) (F/S). An introduction to the current definitions and theories of technical communication including

**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

and will be expected to participate more fully in class activities. May be repeated for up to six credit hours. PREREQ: ENGL 306 or PERM/INST.

#### ENGL 415G ON-SCREEN DOCUMENT PRODUCTION

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

### ENGL 500 RESEARCH METHODS IN LITERARY STUDIES

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

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

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

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

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

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

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

### ENGL 510 SEMINAR IN MAJOR AMERICAN OR ENGLISH

**WRITER (3-0-3) (F/S).** A consideration of minor and major artistic creations of an author with attention to major influences on the writer and his/her influences on others. Aspects of investigation to include

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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: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 521 TOPICS IN ON-SCREEN DOCUMENT PRODUCTION

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

ENGL 523 FICTION WRITING WORKSHOP (3-0-3) (F/S). An advanced workshop in fiction. Students will write fiction, submit their work for the critique of the workshop and contribute to the discussion of others' writing. Readings may be assigned to address particular issues of craft and genre. Repeatable for credit; course must be taken a minimum of four times if this is the degree candidate's genre. PREREO: Admission to program or PERM/INST.

**ENGL 524 CREATIVE NONFICTION WRITING WORKSHOP** 

**(3-0-3) (F/S).** An advanced workshop in creative nonfiction. Students will write creative nonfiction, submit their work for the critique of the workshop and contribute to the discussion of others' writing. Readings may be assigned to address particular issues of craft and genre. Repeatable for credit; course must be taken a minimum of four times if this is the degree candidate's genre. PREREQ: Admission to program 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: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

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: Admission to program 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: Admission to program 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: Admission to program or PERM/INST.

ENGL 550 LITERATURE AND CULTURE (3-0-3) (F/S). The

interaction between a body of literature and the social, economic, and political forces that characterize the culture in which it originates. The influence of culture on literary form and content. Repeatable for credit. PREREQ: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

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 the Master of Arts in English program or the Master of Fine Arts in Creative Writing program, or PERM/CHAIR.

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: Admission to Graduate Program or PERM/CHAIR.

#### 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 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 Master of Arts in English program or Master of Fine Arts in Creative Writing program, or PERM/CHAIR.

**ENGL 570 LITERARY MOVEMENTS (3-0-3) (F/S).** A focus on a significant literary movement, the works of its major and minor contributors, its theories and its practice, its relation to its time, its place in literary history, its influence on writers past and present. Repeatable for credit. PREREQ: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 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: Admission to the Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

#### ENGL 585 SELECTED TOPICS IN LINGUISTICS (3-0-3)(F/S).

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

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

#### ENGL 590 INTERNSHIP (V-0-V).

ENGL 591 PROJECT (V-0-V).

ENGL 593 THESIS (V-0-V).

ENGL 597 SPECIAL TOPICS V-0-V).

### 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.

ENGL 600 ASSESSMENT [Comprehensive Examination] (3-0-3).

### 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.

### **Department of Geosciences**

### Chair: C. J. Northrup

Math/Geosciences Building, Room 121 Telephone 208 426-1581 or 426-1631 FAX 208 426-4061 http://earth.boisestate.edu

Graduate Faculty: Warren Barrash, Shawn Benner, John Bradford, Matthew Kohn, Bwalya Malama, James McNamara, Paul Michaels, C.J. Northrup, John R. Pelton, Jennifer Pierce, Partha Routh, Mark Schmitz, Walter S. Snyder, Kasper VanWijk, Craig M. White, David Wilkins

Adjunct Graduate Faculty: William P. Clement, Thomas M. Clemo, Vladimir I. Davydov, Lee Liberty, Karen Viskupic

### **Graduate Degrees Offered**

- Doctor of Philosophy in Geophysics
- Doctor of Philosophy in Geosciences
- Master of Science in Earth Science
- Master of Science in Geology
- Master of Science in Geophysics
- Master of Science in Hydrologic Sciences (See Interdisciplinary Programs)
- Graduate Certificate in Geographical 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 Math/Geosciences Building, Room 206E Telephone 208 426-1631 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 and 240 or higher for the computer-based examination. 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 Math/Geosciences Building, Room 205A 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 and 240 or higher for the computer-based examination. 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 Science in Earth Science

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

### **General Information**

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

### **Application and Admission Requirements**

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

### **Degree Requirements**

Master of Science in Earth Science	
Course Number and Title	Credits
Required courses:         Graduate Core         ED-CIFS 503 Fundamentals of Educational         Research	6
All other courses to be taken in the degree program are planned by the student and the graduate committee.	
Content Area Courses	14
Approved Electives	7
GEOS 591 Project or GEOS 593 Thesis A final comprehensive oral and/or written examination over course work and the thesis or project is required.	6
TOTAL	33

### **Credit Requirements**

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

### Master of Science in Geology

**Graduate Program Coordinator:** Mark Schmitz Math/Geosciences Building, Room 205A 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
Degree requirements for the Master of Science in Geology are the same as for the Graduate College. 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	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 MS Geology program	9
TOTAL	30

### **Credit Requirements**

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

### **Thesis Requirements**

A thesis representing research of sufficient quality to warrant publication in a peer-reviewed journal is required of all candidates for the Master of Science in Geology. Actual publication is not required, but is held out as a goal for all graduate students. The research results must be presented at

a formal public defense, and the final written thesis must be approved by the supervisory committee, by the Coordinator of the geology graduate program, and by the Dean of the Graduate College. In order to provide sufficient time for thorough evaluation of thesis research, a student should allow 3-6 months between preparation of the first draft of the thesis and the day of the formal defense. Frequent communication between the student, the supervisory committee, and the Coordinator is essential throughout this period.

### Master of Science in Geophysics

**Graduate Program Coordinator:** Kasper van Wijk Math/Geosciences Building, Room 206E Telephone 208 426-1631 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 and 240 or higher for the computer-based examination. 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
<b>Credit Requirements:</b> 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 Geographical Information Analysis

**Graduate Program Coordinator:** David Wilkins Math/Geosciences Building, Room 223 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 Geographical Information Analysis	
Course Number and Title	Credits
Core Courses GEOG 560 Introduction to Geographic Information	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**

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 410G 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: GEOPH 301 or GEOPH 305 or PERM/INST.

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: GEOPH 303 or 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 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) (S). Interdisciplinary earth science concerned with movement and occurrence of water. Watershed-based hydrologic phenomena including hydrologic cycle water-cycle analysis, precipitation, evapotranspiration, snow-snowmelt, streamflow, floods, routing and surface runoff events. Application of analytical techniques to solve water resource problems. May be taken for CE, GEOPH, or GEOS credit, but not in more than one department. PREREQ: MATH 175 or PERM/INST.

**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 525 EARTHQUAKE SEISMOLOGY (3-0-3)(F).

Earthquake source theory, waves from a point dislocation source in a radially symmetric Earth, reflection and refraction at a plane interface, surface waves, free oscillations, theory of the seismograph, interpretation of seismograms, travel-time curves, hypocenter determination, fault-plane solutions, magnitude, properties of the Earth's interior, seismotectonics and seismic hazards. Field and laboratory exercises. PREREQ: GEOS 101, MATH 333.

GEOPH 535 TECTONOPHYSICS (3-0-3) (F). Application of physics and mathematics to investigation of tectonic processes. Basic

continuum mechanics, heat transfer, and fluid mechanics. Elastic flexure of the lithosphere, cooling of oceanic lithosphere, thermal and subsidence history of sedimentary basins, frictional heating on faults, thermal structure of subducted lithosphere, isostatic compensation, postglacial rebound, creep in rocks, mantle convection. Project and report required. PREREQ: PERM/INST.

#### GEOPH 540 ELECTROMAGNETIC AND SEISMIC WAVE

**PROPAGATION (3-0-3) (S) (Alternate 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. PREREQ: GEOPH 301, MATH 333.

#### **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 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 either 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 GEOTECHNICAL**

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

GEOPH 613 GEOPHYSICAL METHODS IN GROUNDWATER

**HYDROLOGY (2-2-3) (F/S).** 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 salt water intrusion. Scheduled offering based on student interest. PREREQ: GEOPH 305, GEOPH 605, GEOS 512, or PERM/INST.

#### GEOPH 623 (CE 623) (GEOS 623) ADVANCED

**HYDROGEOLOGY (3-0-3) (F).** Treatment of groundwater occurrence and flow, theory fundamental mechanisms, hydrologic parameters, flow regimes and systems, geologic controls. May be taken for either 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 either 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 525; GEOS 314, or PERM/INST.

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

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

### GEOPH 653 DESIGN OF GEOPHYSICAL MONITORING SYSTEMS FOR SURFACE OR SUBSURFACE PROCESSES

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

#### GEOPH 680 SELECTED TOPICS IN GEOPHYSICAL DATA

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

#### **GEOPH 693 DISSERTATION**

#### GEOS-GEOSCIENCE

#### GEOS 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 511 ADVANCED ENVIRONMENTAL GEOLOGY

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

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

#### GEOS 516 (CE 516)(GEOPH 516) HYDROLOGY (3-0-3)(S).

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

#### GEOS 517(GEOPH 517) WATERSHED PROCESSES (3-0-3)(F).

Investigation of the theoretical and empirical foundations of physical processes that govern the morphology of watersheds focusing on hillslope and fluvial processes. Our objective is to extract basic physical concepts from laws and equations that are used to describe and model various geomorphic phenomena. The course will involve a mix of lectures, student led discussions, and fieldwork. PREREQ: GEOS 313, MATH 175, and PHYS 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 solidearth 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 530 (CE 530) VADOSE ZONE HYDROLOGY

**(3-0-3) (F).** Laboratory and field methods for characterizing physical and hydraulic properties of soils, solution of variably saturated flow problems using analytical and numerical techniques. Computer simulations of flow and transport in variably saturated soils. May be

taken for either CE or GEOS credit, but not both. PREREQ: CE 412, or GEOS 412, or CE 512, or GEOS 512, or PERM/INST.

#### GEOS 531 GEOLOGY AND TECTONICS OF WESTERN NORTH

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

#### GEOS 533 (CE 533) CONTAMINANT TRANSPORT (3-0-3)(S).

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

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

#### GEOS 541 PLATE TECTONICS (3-0-3) (F/S) (On demand). Reviews and clarifies geologic and geophysical foundations of plate

tectonic theory. Characteristics of modern tectonic environments and their use in interpreting the Earth's geologic history. PREREQ: PERM/INST.

#### GEOS 542 CURRENT LITERATURE IN STRUCTURE AND TECTONICS (10.1)(E/S) Examination procentation and

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

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

#### **GEOS 560 VOLCANOLOGY (3-0-3) (F) (Alternate years).** Study of volcanic processes and deposits, with focus on advances in volcanology since 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 either 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 591 PROJECT (0-3 to 0-6).

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

GEOS 596 DIRECTED RESEARCH (0-1 to 0-4).

#### **GEOS 597 SPECIAL TOPICS (V-V-V)**

**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 either 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 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 either GEOS, GEOPH, or CE 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 either GEOS, GEOPH, or CE credit, but only in one department. PREREQ: CE 623 or GEOPH 623 or GEOS 623 or PERM/INST.

#### GEOS 636 STABLE ISOTOPE GEOCHEMISTRY (3-0-3)(F/S).

Comprehensive overview of theory, methods, and applications of stable isotope geochemistry to a wide range of earth science problems. PREREQ: PERM/INST. GEOS 638 RADIOGENIC ISOTOPE GEOCHEMISTRY AND GEOCHRONOLOGY (3-0-3) (F/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 either GEOPH or GEOS credit, but not both. PREREQ: PERM/INST.

#### GEOS 643 ADVANCED STRUCTURAL GEOLOGY

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

#### GEOS 645 PHYSICS AND CHEMISTRY OF MOUNTAIN

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

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

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

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

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

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

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

#### Idaho State University Courses:

GEOS 648 Research Problems GEOS 650 Thesis

### **Department of Mathematics**

### Chair: Douglas Bullock

Math/Geosciences Building, Room 235 Telephone 208 426-1172 FAX 208 426-1356 http://math.boisestate.edu e-mail: office@math.boisestate.edu

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

### **Graduate Degrees Offered**

- Master of Science in Mathematics
- Master of Science in Mathematics Education

### Master of Science in Mathematics

### **Graduate Program Coordinator:** Jodi Mead Math/Geosciences Building, Room 218B

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:	7
MATH 514 Advanced Calculus 4	
MATH 515 Advanced Analysis3	
Additional graduate courses and a culminating activity	23-24
chosen from one of the following possibilities:	
Comprehensive Examination	
Eight courses totaling at least 23 credits	
MATH 600 Assessment [Comprehensive	
Examination]1	
Project	
Six courses totaling at least 17 credits	
MATH 590 Practicum/Internship	
MATH 591 Project	
Thesis	
Six courses totaling at least 17 credits 17	
MATH 593 Thesis6	
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. These three tests cannot be taken until after the student is admitted to candidacy and must be taken in the same semester.

**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 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.

### College of Arts and Sciences Department of Mathematics

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

**Project Option** The project option is designed for most practicing teachers. It requires 30-33 graduate credits comprised of at least 27 course credits and a 3-6 credit project. Each student choosing the project option must give a public oral presentation about the completed project.

Master of Science in Mathematics Education	n
Course Number and Title	Credits
Required Mathematics Education Courses:         MATHED 510 Mathematics Curriculum 7-12	7
Required Education Courses: ED-CIFS 503 Fundamentals of Educational Research	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.	
Choose ONE of the following options: <b>High School Option</b> MATH Content Courses: Courses with a MATH prefix less than 500 require the G option <b>Junior High School Option</b> 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	6

— continued —

Master of Science in Mathematics Education (continued)	
Free Electives:	11
MATHED, Education, or another area (MATH G	
option permitted)	
Project or Thesis in MATH or MATHED	3-6
TOTAL	30-33
Note: The total number of G credits may be no more than one-third of the total credits.	

### **Course Offerings**

#### MATH-MATHEMATICS

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

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

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

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

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

MATH 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.

### College of Arts and Sciences Department of Mathematics

**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 SERIES:**

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

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

#### MATHED—MATHEMATICS EDUCATION

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

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

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

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

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

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

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

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

MATHED 558 ADVANCED GEOMETRY AND PROBABILITY

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

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

MATHED 598 SEMINAR IN MATHEMATICS EDUCATION

**(2-0-2) (SU).** The content will vary within a format of student presentation and discussion of relatively advanced mathematics education topics selected from texts or journals. This will not be a seminar in mathematics.

### **Department of Music**

#### Chair: Mark Hansen

Morrison Center for the Performing Arts, Room C-100 Telephone 208 426-1596 FAX 208 426-1771 http://www.boisestate.edu

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

Adjunct Graduate Faculty: Irena Ravitskaya, Samuel Smith

### **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 Telephone 208 426-1216 e-mail: jbelfy@boisestate.edu

### **General Information**

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

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

### College of Arts and Sciences Department of Music

and culminates in a graduate recital or other appropriate culminating project.

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

### **Application and Admission Requirements**

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

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

### **Degree Requirements**

Master of Music, Music Education	
Course Number and Title	Credits
<b>Graduation Requirements:</b> 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.	

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Master of Music, Music Education (continued)	
1. Core Courses: MUS 503 Introduction to Music Research	9
2. Non-Music Education Courses: *Music Theory	12
<ul> <li>3. Music Electives:</li> <li>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.</li> <li>B. 3 credits additional approved electives in music 3</li> <li>4. Comprehensive Examination:</li> </ul>	9
A written comprehensive examination in music must be completed prior to completion of the student's culminating activity. This exam will be tailored to each student's graduate course work. The comprehensive exam may be taken after the completion of 27 hours of required course work to include 6 credits of the core courses and the 3 hours each in music history and music theory.	
5. Oral Examination: If needed, an oral examination relating to the written comprehensive examination or to the culminating activity may be requested at the discretion of the candidate's Committee.	
<ul> <li>6. Culminating Activity (3-6 credits from one of the choices listed below):</li> <li>A. MUS-APL 544 Lecture-Recital</li></ul>	3-6
TOTAL	33-36
*All students must take a minimum of one history or theory course designated graduate-only. Piano and voice majors must take a mi of two.	

### College of Arts and Sciences Department of Music

Master of Music, Performance	
Course Number and Title	Credits
<b>Graduation Requirements:</b> 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	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	17-18
Performance Culminating Project: MUS-APL 546 Graduate Solo Performance Recital	3
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
*All students must take a minimum of one history or theory cours designated graduate-only. Piano and voice majors must take a m of two. **Required of all vocal performance majors.	

Master of Music, Pedagogy	
Course Number and Title	Credits
<b>Graduation Requirements:</b> 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	12
Pedagogy Courses: MUS 563, 564 Pedagogy I, II	13-16
Pedagogy Option Culminating Project (A, B, or C) A) MUS-APL 546 Graduate Solo Performance Recital by special permission	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
*All students must take a minimum of one history or theory course designated graduate-only. Piano and voice majors must take a mi of two.	

### **Course Offerings**

### MUS-APL-MUSIC APPLIED, PERFORMANCE CLASSES, RECITALS

**MUS-APL 529 JAZZ IMPROVISATION (1-0-1) (F/S).** Private lessons in jazz improvisation. Intended primarily for instrumental majors, this performance-oriented course deals with the principles of jazz harmony and 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 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) (S) (Odd years).** 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) (F) (Odd years). 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) (Even years) (3-0-3) (S). 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: 1 year of MUS-PRV voice performance studies.

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

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

#### MUS 501 HISTORY OF MUSIC IN THE UNITED STATES

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

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

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

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

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

#### MUS 506 SEMINAR IN INSTRUMENTAL MUSIC: PERFORMANCE PRACTICES AND STYLES (3-0-3)(F/S).

Analysis and study of works from the Baroque through the present era. Particular attention will be paid to performance practices of ornamentation, style, tempo, scoring, dynamics, etc. Band transcriptions also included.

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

MUS 511 20TH-CENTURY MUSICAL STUDIES (3-0-3)(F/S). A

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

**MUS 512 ELECTRONIC MUSIC APPLICATIONS (3-0-3) (F/S).** A historical overview of electronic music and music technology. Handson 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 551 SEMINAR IN MEDIEVAL THROUGH BAROQUE PERFORMANCE PRACTICES (3-0-3) (F/S). The study of music literature in Western Europe from the late Middle Ages through the Baroque period through the historical survey of performance practices

and their practical application. History elective. **MUS 552 SEMINAR IN MODERN MUSIC: FORM AND STYLE:** (1750-1980) (3-0-3) (F/S). The study of art music in the Western

World from 1750 through the present, with emphasis on selected masterworks, including score analysis, performance practice, textual background and historical context. History elective.

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

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

MUS 563 MAJOR INSTRUMENT PEDAGOGY I (3-0-3) (F). An advanced and in-depth investigation of pedagogical techniques, materials and principles used in the private teaching studio. Readings

in the philosophy of teaching will be included. Repeatable for credit for different instruments.

#### MUS 564 MAJOR INSTRUMENT PEDAGOGY II (3-0-3)(S).

Development of lesson plans and supervised studio teaching in both private and group settings. Recommended preparation: MUS 563. Repeatable for credit for different instruments.

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

#### **MUS 570 NEW DEVELOPMENTS IN MUSIC EDUCATION**

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

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

reading skills. PREREQ: MUS 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.

# **College of Business and Economics**

#### **Dean: Patrick Shannon**

Business Building, Room 310 Telephone 208 426-1125

#### Associate Dean for Graduate Studies and Executive Education: Kirk Smith

Business Building, Room 318 Telephone 208 426-3116 FAX 208 426-1135 http://cobe.boisestate.edu/graduate

### **Graduate Degrees Offered**

- Master of Business Administration
- Master of Business Administration in Information Technology Management
- Executive Master of Business Administration
- Master of Science in Accountancy
- Master of Science in Accountancy, Taxation
- Graduate Certificate in Supply Chain Management

### **General Information**

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

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

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

### Master of Business Administration

Graduate Studies Director: Kirk Smith

**Program Administrator:** J. Renee Anchustegui Business Building, Room 318 Telephone 208 426-3116 FAX 208 426-1135 http://cobe.boisestate.edu/graduate e-mail: graduatebusiness@boisestate.edu

#### Accountancy

**Graduate Faculty:** Paul Bahnson, Mark Cowan, Denise M. English, Thomas J. English, David R. Koeppen, Kip Krumwiede, William C. Lathen, E. Shawn Novak, Celia Renner

Adjunct Graduate Faculty: Fred Christensen, Frank llett Jr., Susan Shannon

#### Economics

**Graduate Faculty:** 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, Lyman Gallup, Thomas Gattiker, Robert Minch, Patrick Shannon, Sharon Tabor, Regis Terpend, Gregory Wojtkowski, Wita Wojtkowski

#### Management

**Graduate Faculty:** Christopher Baughn, Michael B. Bixby, Mark Buchanan, Roy Glen, Newell Gough, Nancy K. Napier, Kent Neupert, James E. Wanek

#### **Marketing and Finance**

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

### **General Information**

The Master of Business Administration and Master of Business Administration in Information Technology Management at Boise State University are designed to provide a high quality academic program to assist in the development of tomorrow's business leaders.

Emphasizing the needs of fully employed students, the programs strive to provide students with a thorough grounding in each of the functional business areas. Integration of student's knowledge across these functional disciplines is one of the programs' key objectives.

The MBA/MBA-ITM programs provide a general management perspective that requires students to consider the social, environmental, and ethical context of managerial actions and enables them 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, simulation and fieldwork. In addition to lectures, research projects, case analysis, discussion groups and guest speakers, several courses incorporate group projects as an integral part of the learning.

Graduate Assistantships are available and cover the student's tuition and fees plus a stipend. Applicants must be admitted to the MBA program during their year of service. Application deadlines: Fall – February 1; Spring – October 1.

Under certain conditions, and with approval of the MBA/ MBA-ITM 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 141, Math/Geosciences Building, Boise State University, 1910 University Drive, Boise, ID 83725-1110. All other admission materials required for the MBA should be sent to the Business Graduate Studies office, Room 318, Business Building, Boise State University, 1910 University Drive, Boise, ID 83725-1600.

Initial acceptance in order to take MBA/MBA-ITM classes is based on the applicant's prior academic performance, leadership experience, professional experience, aptitude for graduate study, general motivation, and managerial attributes. All applicants must fulfill the following requirements prior to enrolling in MBA classes:

- 1. Applicants to the MBA/MBA-ITM program must have graduated from an accredited college or university with a Bachelor degree. Copies of official transcripts are also required upon initial application.
- A GMAT score of 500 and a cumulative GPA of 3.0 (C = 2.0) are generally considered minimal. New applicants for the program should furnish documentary evidence of 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 587/240 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. Two years of significant work experience. This may be waived if the applicant has a GMAT score of 600 or higher.
- 5. Current detailed professional resume which accurately reflects professional work experience.
- 6. Two letters of reference (one preferably from an academic source) which address the applicant's strengths, weaknesses, benefits the applicant may receive from our MBA/MBA-ITM program, and what the applicant can contribute to our MBA/MBA-ITM program.
- 7. 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 MBA/MBA-ITM program, in general, and Boise State's MBA/MBA-ITM 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 other 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?
- 8. A student must be accepted to either the MBA/MBA-ITM program or another Master's program to take MBA/MBA-ITM classes.

Final acceptance leading to a Master degree is based upon the Graduate College evaluation and acceptance of the applicant.

**Note:** A good understanding of algebra and computer competency are essential to successful progress in the MBA program. Students may wish to brush up on these skills prior to admission as they will be 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/MBA-ITM 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:

Sumn	ner entry	March 1
	ntry	
Spring	g entry	October 1

Students will typically be notified of their admittance status by March 31, June 30 or October 31.

### **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, information technology, or high-tech marketing, and can expand beyond business to such areas as engineering, health policy, or public administration.

Master of Business Administration	
Course Number and Title	Credits
<b>Business Essentials Courses:</b> 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.	12
<ul> <li>MBA 512 Business Statistics</li></ul>	

- continued -



Master of Business Administration (continued)	
Advanced Courses:MBA 531 Strategic Perspectives1MBA 532 Accounting for Decision Making and3Control	28
Electives:         ECON 560 Economics of Public Policy	9
Two undergraduate "G" courses may be taken for graduate credit if cleared by the Graduate Program Director. TOTAL	97.40
<b>Note:</b> Students are encouraged to meet with the approp Program Coordinator to help select electives to support of specialization.	

### **Degree Requirements**

The MBA in Information Technology Management requires a minimum of 36 semester credit hours and a maximum of 48 semester credit hours. The exact number of credits required depends upon the student's prior academic experience. This program targets working professionals who have a technical undergraduate degree, or who have been working in a technical environment for a minimum of five years. Recent graduates of a technical undergraduate program, or graduates with non-technical degrees may be admitted to the program upon analysis of their application package and career goals.

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 and Distribution of Goods and Services       3         MBA 531 Strategic Perspectives       1         MBA 532 Accounting for Decision Making and Control.       3         MBA 534 Information Technology for Managers 3       3         MBA 535 Legal Issues in Business Relationships 3       3         MBA 538 Organizational Issues       2         MBA 539 Advanced Operations Management       3         MBA 539 Advanced Financial Management       3         MBA 539 Advanced Financial Management       3		Master of Business Administration in Information Technology Management
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         MBA 514 Economic Theory and Analysis         MBA 522 Accounting and Financial Analysis         MBA 527 Creation and Distribution of Goods and         Services         MBA 531 Strategic Perspectives         MBA 532 Accounting for Decision Making and         Control       3         MBA 534 Information Technology for Managers 3         MBA 535 Legal Issues in Business Relationships 3         MBA 538 Organizational Issues         MBA 539 Advanced Operations Management	Credits	Course Number and Title
MBA 514 Economic Theory and Analysis       3         MBA 522 Accounting and Financial Analysis       3         MBA 527 Creation and Distribution of Goods and Services       3         Advanced MBA Courses:       3         MBA 531 Strategic Perspectives       1         MBA 532 Accounting for Decision Making and Control.       3         MBA 534 Information Technology for Managers 3       3         MBA 535 Legal Issues in Business Relationships 3       3         MBA 536 Global Economic & Business Analysis 3       3         MBA 538 Organizational Issues       2         MBA 537 Managing People in Organizations       2         MBA 539 Advanced Operations Management       3         MBA 545 Advanced Financial Management       3         MBA 550 Information Technology Infrastructure Management       3         MBA 551 Enterprise Intelligence Models       3         MBA 555 Information Assurance & Compliance       3         MBA 551 Marketing High-Technology Products       3         MBA 551 Marketing High-Technology Products       3         MBA 561 Marketing High-Technology Products	12	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 531 Strategic Perspectives       1         MBA 532 Accounting for Decision Making and       3         Control       3         MBA 534 Information Technology for Managers       3         MBA 535 Legal Issues in Business Relationships       3         MBA 536 Global Economic & Business Analysis       3         MBA 536 Organizational Issues       2 <b>MBA Advanced Electives:</b> 3         MBA 533 Advanced Operations Management       3         MBA 539 Advanced Marketing Management       3         MBA 545 Advanced Financial Management       3         MBA 550 Information Technology <b>Management Courses:</b> MBA 551 Enterprise Intelligence Models       3         MBA 555 Information Assurance & Compliance       3         MBA 557 Project and Change Management       3         MBA 558 Special Topics       3         MBA 558 Special Topics       3         MBA 585 Special Topics <td></td> <td>MBA 514 Economic Theory and Analysis</td>		MBA 514 Economic Theory and Analysis
MBA 533 Advanced Operations Management	15	<ul> <li>MBA 531 Strategic Perspectives</li></ul>
Management Courses:         MBA 550 Information Technology Infrastructure         Management         MBA 551 Enterprise Intelligence Models         MBA 551 Enterprise Intelligence Models         MBA 554 Emerging Topics in Information         Technology         MBA 555 Information Assurance & Compliance         MBA 557 Project and Change Management         MBA 561 Marketing High-Technology Products         MBA 577 Supply Chain Management         MBA 585 Special Topics         3         (such as Innovation Laboratory, Technology	3	MBA 533 Advanced Operations Management 3 MBA 537 Managing People in Organizations 2 MBA 539 Advanced Marketing Management
MBA 561 Marketing High-Technology Products 3 MBA 577 Supply Chain Management	15	Management Courses:         MBA 550 Information Technology Infrastructure         Management         MBA 551 Enterprise Intelligence Models
TOTAL 36	3 36-48	MBA 561 Marketing High-Technology Products 3 MBA 577 Supply Chain Management

### Course Offerings BUSINESS ESSENTIALS COURSES

### MBA-MASTER OF BUSINESS

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

of variance, regression analysis, forecasting, and nonparametric techniques.

### MBA 514 ECONOMIC THEORY AND ANALYSIS (3-0-3)(S).

Offers an accelerated, integrated introduction to economic analysis of the price system and the aggregate performance of developed economies, including supply and demand, basic market structures, income distribution, employment, inflation, growth and international trade.

### MBA 522 ACCOUNTING AND FINANCIAL ANALYSIS

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

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

#### ADVANCED COURSES

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

#### **MBA 532 ACCOUNTING FOR DECISION MAKING AND**

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

#### **MBA 533 ADVANCED OPERATIONS MANAGEMENT (3-0-3) (F).** Concepts and issues related to managing the operations function of an organization. Topics include forecasting, production planning, materials management, quality management, and supply chain management as they relate to developing a competitive operations strategy. The role of information technology as it relates to operations

strategy. The role of information technology as it relates to operations management and the relationships between operations and other business functional areas are also discussed. PREREQ: MBA 527 or equivalent.

### MBA 534 INFORMATION TECHNOLOGY FOR MANAGERS

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

### MBA 535 LEGAL ISSUES IN BUSINESS RELATIONSHIPS

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

### MBA 536 GLOBAL ECONOMIC AND BUSINESS ANALYSIS

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

### College of Business and Economics Master of Business Administration

#### **MBA 537 MANAGING PEOPLE IN ORGANIZATIONS**

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

**MBA 538 ORGANIZATIONAL ISSUES (2-0-2) (S).** Application of behavioral science principles and skills in an organizational setting. Emphasis is on an interactionist perspective (individual, group, and organizational dynamics), towards understanding behavior in organizations. Topics include team building, motivation, leadership, problem solving, negotiation, and self-management. The course is geared towards managers and the application of concepts to experience. 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, and MBA 531, or equivalents.

#### MBA 545 ADVANCED FINANCIAL MANAGEMENT (3-0-3)(S).

Reviews dynamic financial analysis with emphasis on the current practical applications and complexities of capital budgeting, arbitrage arguments, risk-return models and financing alternatives. PREREQ: MBA 514, MBA 522, or equivalents.

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

#### ADVANCED INFORMATION TECHNOLOGY COURSES

**MBA 550 INFORMATION TECHNOLOGY INFRASTRUCTURE MANAGEMENT (3-0-3) (S).** A technical and strategic view of network operations and the challenges of planning for and managing increasingly complex wired and wireless network architectures and technical staff. Various network management tools, security and access policies, and business requirements will be explored to measure utilization and performance, plan for future requirements, and support organizational goals and objectives. PREREQ MBA 534.

#### MBA 551 ENTERPRISE INTELLIGENCE MODELS (3-0-3)(F). A

strategic overview of the information and application systems used for decision making to transform and enable enterprise-level domestic and global processes. Examines business drivers and implementation strategies for enterprise-wide applications and global IT solutions. Evaluation of enterprise applications such as ERP, CRM, BPM, Enterprise Application Integration, and other methods for gathering, securing, and managing business intelligence in organizations. PREREQ MBA 534.

#### **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 555 INFORMATION ASSURANCE AND COMPLIANCE**

**(3-0-3) (F).** A technical and strategic view of data and system security, including topics such as data valuation and classification, risk management, disaster recovery, and business continuity planning. Explores the options and challenges of security outsourcing, examines implications and challenges of operational security in global IT organizations, and reviews legal, social, and ethical issues related to security management. PREREQ MBA 534 and MBA 535.

#### **MBA 557 PROJECT AND CHANGE MANAGEMENT**

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

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

#### ADVANCED ELECTIVES

#### ECON-ECONOMICS

#### ECON 560 ECONOMICS OF PUBLIC POLICY (3-0-3)

(Intermittent). 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)

(Intermittent). 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**

#### **MBA 561 MARKETING HIGH-TECHNOLOGY PRODUCTS**

**(3-0-3) (F).** Explores concepts and practices related to marketing in the fast-paced environment of high-technology industries.

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

#### MBA 564 INTERNET MARKETING STRATEGY (3-0-3)(S).

Explores how the integration of Internet based technology is changing the business environment. Key topics include network infrastructure, Internet buyer behavior, integrated market communication, e-business model construction, analysis, and valuation.

#### MBA 566 CUSTOMER RELATIONSHIP MANAGEMENT (3-0-3)

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

**MBA 574 FINANCIAL MODELING (3-0-3) (F/S).** Introduces quantitative techniques useful for modeling and analyzing problems in finance. Topics include capital budgeting, dynamic financial planning

models, portfolio optimization, and options. The emphasis is on formulating and solving models using a computer. PREREQ: MBA 545.

**SELECTED TOPICS:** Contemporary topics courses offered intermittently.

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

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

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

#### **UNDERGRADUATE "G" COURSES**

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

#### **ECON – ECONOMICS**

#### ECON 421G QUANTITATIVE METHODS IN ECONOMICS

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

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

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

#### ECON 480G SEMINAR IN INTERNATIONAL ECONOMICS

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

#### FINAN—FINANCE

#### FINAN 410G WORKING CAPITAL MANAGEMENT (3-0-3)

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

#### FINAN 411G CAPITAL BUDGETING AND PLANNING

**(3-0-3) (F).** Acquisition and allocation of long-term sources of funds are the subject of this course. Emphasis is placed on fund raising and the problems associated with measurement and structural influences on the firm's cost of capital. Cash-flow analysis and alternative investment decision rules are examined. Cases are used for classroom discussion as a link between theory and practice. PREREQ: FINAN 303 and BUSSTAT 208.

#### FINAN 420G MANAGEMENT OF FINANCIAL INSTITUTIONS

**(3-0-3) (F).** The interaction between financial institutions and financial markets are examined, and their roles in the economy are discussed. Emphasis is placed on the changes taking place within the financial community, the effects on financial institutions in general, and commercial banking in particular. PREREQ: FINAN 303.

**FINAN 430G INTERNATIONAL FINANCE (3-0-3) (F).** Builds a strong foundation on the relationship among international financial markets. Included is exchange rate determination and parity conditions across countries. Once the foundation is built, the multinational firm is examined in this framework. Included is working capital management, capital budgeting, and cost of capital for the multinational firm. PREREQ: FINAN 303.

#### FINAN 450G INVESTMENT MANAGEMENT (3-0-3)(F).

Examines the U.S. securities markets from both a theoretical and a practical viewpoint. Topics include: mechanics of direct investment, measurement and management of risk and return, the Efficient Market Hypothesis, Modern Portfolio Theory, the Capital Asset Pricing Model, and analysis of investment performance. Class format incorporates lecture and readings and may include guest lecturers. PREREQ: BUSSTAT 208 and FINAN 303.

#### FINAN 451G FRONTIERS IN FINANCIAL MARKETS

**(3-0-3) (S).** Focuses on both recent and past innovations in the securities markets. Futures contracts and options and the theory of hedging, using both agricultural and financial futures contracts, options writing, and index options are stressed. A combination of theory and practice will be sought relying on lecture, text material, and journal and trade articles, and may include guest speakers. PREREQ: BUSSTAT 208 and FINAN 303.

#### GENBUS—GENERAL BUSINESS

**GENBUS 441G BUSINESS, GOVERNMENT, AND SOCIETY** (**3-0-3**) (**F**/**S**). Intensive study of the relationships between business, government, and society. Course also explores moral and ethical conduct and social responsibility. PREREQ: GENBUS 202, (GENBUS 302 recommended).

#### INTBUS-INTERNATIONAL BUSINESS

#### INTBUS 445G INTERNATIONAL TRADE AND INVESTMENT

**LAW (3-0-3) (S).** The law and policy of international economic institutions (e.g., World Trade Organization, NAFTA), national government regulation and private law affecting international transactions in trade in goods, services, technology, and investment. Also selected issues in U. S. foreign/trade policy and ethical/social responsibility. PREREQ: Senior/Graduate standing or PERM/INST.

SPECIALIZATION COURSES

Public Administration	
MHLTHSCI 550	Current Issues in Health Policy
ECON 440G	Health Economics
MHLTHSCI 520	Health Care Systems Organization and Admin
MHLTHSCI 540	Health Information Management

#### ublic Administration

PUBADM 501 PUBADM 504 PUBADM 550 PUBADM 580-589

**Health Policy** 

Public Policy Process Public Budgeting and Financial Administration The Executive and The Administrative Process Selected Topics

### **Executive Master of Business Administration**

Graduate Studies Director: Kirk Smith **Program Information:** Chervl Maille Business Building, Room 318 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 midlevel 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 seniorlevel 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 Administratio	n
Course Number and Title	Credits
First Year Courses	20
EMBA 511 Business Perspectives2	
EMBA 512 Assessing Business Opportunities 5	
EMBA 513 Creating Competitive Advantage I 3	
EMBA 514 Creating Competitive Advantage II3	
EMBA 515 Fostering Innovation 4	
EMBA 516 Leadership and Teamwork Skills2	
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 Introducing New Products	
and Services2	
EMBA 524 Partnerships, Acquisitions,	
and Divestitures2	
EMBA 525 Issues in Leadership II 1	
Culminating Activity (Second Year)	8
EMBA 591 Project8	
TOTAL	40

### **Course Offerings**

EMBA-EXECUTIVE MASTER OF BUSINESS ADMINISTRATION

Courses with the EMBA prefix are available only to students enrolled in the EMBA program, and are offered according

### to a schedule determined by the start semester of each cohort.

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

EMBA 512 ASSESSING BUSINESS OPPORTUNITIES (V-V-5)

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

EMBA 513 CREATING COMPETITIVE ADVANTAGE I (V-V-3)

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

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

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

### **Department of Accountancy**

**Chair: Denise M. English** Business Building, Room 214 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, Kip Krumwiede, William C. Lathen, E. Shawn Novak, Celia Renner,

Adjunct Graduate Faculty: Fred Christensen, Frank llett Jr., Susan Shannon

### Master of Science in Accountancy

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

### **General Information**

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

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

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

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

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

### **Application and Admission Requirements**

Application for admission, fees, and transcripts should be sent to the Graduate Admissions Office, Room 141, Math/ Geosciences Building, Boise State University, 1910 University Drive, Boise, ID 83725-1110. All other materials should be sent to the Business Graduate Studies Office, B318, 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. 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 587/240 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	21
Select From:	
ACCT 502 Advanced Tax Topics	
ACCT 505 Perspectives in Auditing	
ACCT 510 Advanced Financial Reporting3	
ACCT 512 Financial Reporting Theory	
ACCT 514 Advanced Managerial Accounting3	
ACCT 515 Business Valuation	
ACCT 516 Financial Statement Analysis	
ACCT 517 Environmental Accounting and	
Taxation	
ACCT 518 International Financial Reporting3	
ACCT 520 Research in Federal Taxation	
ACCT 525 Partnership Tax Law	
ACCT 530 Corporate Tax Law I	
ACCT 533 Corporate Tax Law II	
ACCT 535 Estate and Gift Taxation	
ACCT 540 Taxation of Non-Profit Organizations 3	
21 - 1	-

— continued —

Master of Science in Accountancy (continued)	
ACCT 545 Real Estate Tax Law	
ACCT 555 Farm and Natural Resource Taxation 3	
ACCT 560 Income Taxation of Trusts & Estates 3	
ACCT 565 Deferred Compensation Taxation3	
ACCT 570 State Taxation and Procedures	
ACCT 575 International Taxation	
ACCT 579 Personal Financial Planning	
ACCT 590 Practicum/Internship	
Non-Accountancy Electives:	9
Electives chosen from non-accountancy graduate	
courses	
TOTAL	30
Non-Accountancy Electives must be approved by the stu	dent's
graduate advisor. Business Essentials courses in the MBA	
program are not available for credit towards the MSA dea	

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 318 Telephone 208 426-3116 FAX 208 426-1135 http://cobe.boisestate.edu/graduate e-mail: graduatebusiness@boisestate.edu

### **General Information**

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

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

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

### **Degree Requirements**

Master of Science in Accountancy, Taxation	
Course Number and Title	Credits
The MSAT degree requires a minimum of 30 hours.	
Taxation Courses	15-21
Selections From:	
ACCT 502 Advanced Tax Topics3	
ACCT 514 Advanced Managerial Accounting3	
ACCT 515 Business Valuation	
ACCT 517 Environmental Accounting & Taxation3	
ACCT 518 International Financial Reporting	
ACCT 520 Research in Federal Taxation	
ACCT 525 Partnership Tax Law	
ACCT 530 Corporate Tax Law I	
ACCT 535 Corporate Tax Law II	
ACCT 540 Taxation of Non-Profit Organizations 3	
ACCT 545 Real Estate Tax Law	
ACCT 555 Farm and Natural Resource Taxation 3	
ACCT 560 Income Taxation of Trusts & Estates 3	
ACCT 565 Deferred Compensation Taxation3	
ACCT 570 State Taxation and Procedures	
ACCT 575 International Taxation	
ACCT 579 Personal Financial Planning3	
ACCT 590 Practicum/Internship3	
Accountancy Electives	0-6
Selections From:	
ACCT 505 Perspectives in Auditing	
ACCT 510 Advanced Financial Reporting	
ACCT 512 Financial Reporting Theory	
	21
Subtotal Taxation and Accountancy Classes	
Non-Accountancy Electives:	9
Elective chosen from non-accountancy graduate	
courses.	
TOTAL	30
Non-Accountancy Electives must be approved by the stu	
graduate advisor. Business Essentials courses in the MB	
program are not available for credit towards the MSA de	
requirements, nor are courses that are essentially course accountancy (such as MBA 522 and MBA 532)	es in
accountancy (Such as MDA 322 dilu MDA 332)	

### **Course Offerings**

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

ACCT-ACCOUNTANCY

### ACCT 450G INFORMATION SYSTEMS AUDITING (3-0-3).

Theory and application of auditing in a computerized accounting system environment. Course coverage emphasizes the standards by which information systems auditors should perform. Those standards address the evaluation of computer security, program development, program modification, computer processing, and source data controls. Current issues in auditing are addressed. Hands-on projects focusing on the review of security and the use of computer-assisted audit tools are utilized. PREREQ: ACCT 350, ACCT 405.

ACCT 451G MANAGERIAL ACCOUNTING (3-0-3). The development and use of cost information for strategic cost management is emphasized. The uses of accounting information for management planning, production, and control decisions are covered. Examples include operations and capital budgeting, computer applications, and an in-depth application of cost accounting concepts. Emphasis is placed on the understanding and use of current cost management techniques. PREREQ: ACCT 314 and SCM 345.

**ACCT 502 ADVANCED TAX TOPICS (3-0-3).** 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.

ACCT 505 PERSPECTIVES IN AUDITING (3-0-3). In-depth study of auditing from both internal and external auditors' perspectives. Topics include substantive testing, evidence, planning, reporting, documentation, and case studies. The course includes a major project in either internal or external auditing.

ACCT 510 ADVANCED FINANCIAL REPORTING (3-0-3). Topics include financial reporting for partnerships, estates and trusts, and insolvency. Comprehensive study of complex business combinations, consolidated financial statements, and foreign currency transactions, PREREQ: ACCT 306.

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 515 BUSINESS 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 in detail and applied in problems, cases and projects.

**ACCT 516 FINANCIAL STATEMENT ANALYSIS (3-0-3).** The analysis of published financial reports from the perspectives of investors, creditors, competitors, and potential business partners. Emphasis is on the communication of information obtained from a rigorous and comprehensive analysis of the statements.

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 RESEARCH IN FEDERAL TAXATION (3-0-3).

Instruction in all aspects of tax research including legislative, administrative and judicial sources; major tax services; tax planning software and LEXIS; 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

**(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 555 FARM AND NATURAL RESOURCE TAXATION (3-0-3). Farm, forestry, mining, and oil and gas tax practices and

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 STATE TAXATION AND PROCEDURES (3-0-3). State income tax issues, sales and use taxes, state and federal income tax procedures.

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

ACCT 577 COMPUTER APPLICATIONS IN TAXATION (3-0-3). State of the art tax computer software applications including emphasis on tax planning considerations; writing and negotiation skills.

#### ACCT 579 PERSONAL FINANCIAL PLANNING (3-0-3)(F).

The course focuses on the tools to help individuals reach their personal financial goals. There will be five main areas of emphasis: investments, insurance coverage/asset protection, income tax planning, retirement planning and estate planning. The areas will be covered in the personal finance framework.

#### ACCT 590 PRACTICUM/INTERNSHIP (3-0-3).

### College of Business and Economics Department of Information Technology and Supply Chain Management

### Department of Information Technology and Supply Chain Management

### Chair: Sharon Tabor

Business Building, Room 308 Telephone 208 426-1181 FAX 208 426-1135 http://cobe.boisestate.edu/graduate e-mail: itscm@boisestate.edu

**Graduate Faculty:** Robert Anson, Tim Chenoweth, Karen Corral, Phillip Fry, Lyman Gallup, Thomas Gattiker, Robert Minch, Patrick Shannon, Sharon Tabor, Gregory Wojtkowski, Wita Wojtkowski

### Graduate Certificate Offered

• Graduate Certificate in Supply Chain Management

### Graduate Certificate in Supply Chain Management

**Graduate Program Coordinator:** Kirk Smith Business Building, Room 308 Telephone 208 426-1181 FAX 208 426-1135 e-mail: scm@boisestate.edu

### **General Information**

The Graduate Certificate in Supply Chain Management is intended for professionals with bachelor's degrees who are working in the logistics/supply chain field and need additional knowledge about logistics and supply chain management to fulfill the duties of their jobs. All of the courses in the program are offered online and asynchronous. There are no requirements for face-to-face meetings.

This program is administered on a cohort basis. It is expected that each entering group of students will progress through the program at the same pace. Students will be able to earn the Graduate Certificate in Supply Chain Management in 3 or 4 semesters depending on their choice of a specialty area.

### **Application and Admission**

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). 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 file for an applicant is complete, it will be evaluated by the graduate program coordinator and a faculty team. 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. Conditions for Admission.

An applicant must:

- possess a bachelor's degree
- be currently working in a job requiring Logistics/SCM skills
- achieve a satisfactory TOEFL score if English is a second language
- meet the graduate admission standards of the college through which they enroll in the program although a predictive exam like the GMAT is not required.

### **Relationships with Other Programs**

Admission to the Graduate Certificate in Supply Chain Management is separate from any other graduate program in the College of Business and Economics at Boise State University. Admission to another graduate program at Boise State University does not imply admission to the program for the Graduate Certificate in Supply Chain Management. Admission to the program for the Graduate Certificate in Supply Chain Management does not imply admission to any other graduate program at Boise State University.

### **Certificate Requirements**

#### Graduate Certificate in Supply Chain Management Course Number and Title Credits 9 **Core Courses Specialty Courses** 6 Successfully complete a two-course sequence in one of the following specialty areas: Radio Frequency Identification-RFID SCM 534 Radio Frequency Identification I ......3 Travel and Transportation SCM 535 Transportation Systems Management ... 3 SCM 538 Tourism Field Study ......3 Operations Excellence along the Supply Chain Embedded in each specialty area course sequence will be a Capstone Project that focuses on a real application and demonstrates integration of knowledge and skills developed throughout the program. TOTAL 15

### College of Business and Economics Department of Information Technology and Supply Chain Management



### Course Offerings

SCM-SUPPLY CHAIN MANAGEMENT

**SCM 531 SUPPLY CHAIN MANAGEMENT (3-0-3) (F/S/SU).** This course provides the basics of supply chain management. The focus of the course is on the impact of demands that an organization's stakeholders place on purchasing; the impact that purchasing and materials management have on organizational success; the impact of ethical, contractual, and legal issues; the impact of strategic objectives; and the impact of supply chain considerations on the other major functional activities. PREREQ: Admission to the Graduate Certificate in Supply Chain Management or PERM/INST.

**SCM 532 LOGISTICS (3-0-3) (F/S/SU).** This course is an introduction to the principles and practices of global supply chain and logistics management. The course covers the integration of all the activities involved in the procurement, storage, and movement of goods from the initial supplier to the final customer. This course will introduce the logic behind this integration and discuss how global organizations have gained a sustainable competitive advantage by implementing programs of total supply chain logistics management into their organizations. PREREQ: Admission to the Graduate Certificate in Supply Chain Management or PERM/INST.

**SCM 533 MEASUREMENT IN SUPPLY CHAINS (3-0-3) (F/S/SU).** Study of the tools needed to measure and sell the value created by logistics throughout the global supply chain. An evaluation of global systems and complexity factors will be conducted and their impact on the creation of this value. Performance valuation will be analyzed through the techniques of systems analysis, assumption-based planning, project management, balanced scorecard, modeling and computer-based simulation. Financial valuation will be determined through activity-based cost accounting and capital budgeting techniques. PREREQ: Admission to the Graduate Certificate in Supply Chain Management or PERM/INST.

SCM 534 RADIO FREQUENCY IDENTIFICATION I (3-0-3) (F/S/SU). Provides students with an understanding of how the study of radio frequency identification (RFID) automatic identification (AUTO-ID) technology impacts supply chain management systems and logistics applications. The student will assess and measure various RFID methods and technologies within large and small logistics systems, using a variety of RFID or AUTO-ID technology to formulate plans of logistics system success and failure. Students will combine alternative RFID methods in order to test and rank those best needed for different business cases. Students will design, develop and integrate logistics information systems to appraise the value of experimental RFID systems. PREREQ: Any two of SCM 531, SCM 532, SCM 533 or PERM/INST.

#### SCM 535 TRANSPORTATION SYSTEMS MANAGEMENT

**(3-0-3) (F/S).** This course presents an advanced study of the management of passenger transportation systems in the travel industry. The students will focus on different forms of transportation as they relate to travel industry management and policy. PREREQ: Any two of SCM 531, SCM 532, SCM 533 or PERM/INST.

SCM 536 LEAN OPERATIONS (3-0-3) (F/S/SU). The course introduces the basic concepts of lean operations and shows through examples, cases studies, simulations, and hands-on projects how organizations can reduce or eliminate the wastes that adversely impact profitability and performance. Topics covered will include value-stream mapping, synchronized flow, pull systems, kanban systems, the 5S's, quick change-over, theory of constraints, total productive maintenance, error proofing, and the balanced scorecard. PREREQ: Any two of SCM 531, SCM 532, SCM 533 or PERM/INST.

**SCM 537 CAPSTONE FOR RFID (3-0-3) (F/S/SU).** The student will demonstrate mastery of the knowledge and skills expected of someone who is a supply chain management professional through completion of a business case development project using automatic identification (AUTO-ID) technology such as radio frequency identification or RFID as mandated by Wal-Mart and the Department of Defense. This course is the culmination of the capstone RFID project that will be identified, defined, and begun in the first RFID course. PREREQ: SCM 534 or PERM/INST.

**SCM 538 TOURISM FIELD STUDIES (3-0-3) (F/S).** This course emphasizes the integration of concepts and the application of knowledge and skills from other courses to a selected travel/tourism field study project. PREREQ: SCM 535 or PERM/INST.

SCM 539 IMPROVING SUPPLY CHAIN QUALITY (3-0-3) (F/S/SU). The course introduces the basic approaches that organizations can take to work with their suppliers to assist them in all facets of improvement with the objective of becoming a preferred supplier. Such concepts as supplier quality, six-sigma quality, project management skills, quality standard and supplier selection and development are discussed. PREREQ: SCM 536 or PERM/INST.

# **College of Education**

**Dean: Diane Boothe** 

Associate Dean: Ross Vaughn Associate Dean for for Teacher Education and Accreditation: Ken Coll

Education Building, Room 705 Telephone 208 426-1611 FAX 208 426-4365 http://education.boisestate.edu/graduate.htm/

### **General Information**

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

### **Department of Bilingual Education**

- Master of Education in Bilingual Education
- Master of Education in English as a Second Language

### **Department of Counselor Education**

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

### Department of Curriculum, Instruction, and Foundational Studies

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

### **Department of Educational Technology**

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

### Department of Kinesiology

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

#### **Department of Literacy**

• Master of Arts in Education, Reading

#### Department of Special Education and Early Childhood Studies

- Master of Arts in Education, Early Childhood Studies
- Master of Education in Early Childhood Studies
- Master of Arts in Special Education
- Master of Education in Special Education

### **Application and Admission Requirements**

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

- 1. Application for admission. http://www.boisestate.edu/ gradcoll
- 2. \$55.00 application fee.
- 3. Official transcripts of all undergraduate and graduate course work sent directly to Graduate Admission and Degree Services at Boise State University.
- 4. Minimum GPA of 3.00 (on a 4.0 scale) for the last two years of undergraduate study, or an overall GPA of 3.00.

### Advisors

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

### Graduate Assistantships

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

## Department of Bilingual Education

**Chair: Roberto E. Bahruth** 

Education Building, Room 413 Telephone 208 426-3680 e-mail: robertobahruth@boisestate.edu

**Graduate Faculty:** Robert 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: \$840. 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 Telephone 208 426-3680 e-mail: robertobahruth@boisestate.edu

**Degree Requirements** 

Master of Education in Bilingual Education (Spanish-English)	1
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
<ul> <li>ED-BLESL 500 The Bilingual/ESL Curriculum: Creating, Planning, Implementation</li></ul>	28
TOTAL	32
Note: This master's program is for both elementary and	l

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

## Master of Education in English as a Second Language

**Graduate Program Coordinator:** Roberto E. Bahruth Education Building, Room 413 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	28
TOTAL	32
<b>Note:</b> This master's program is for both elementary and secondary teachers P-12. The ESL program uses primari Spanish language for examples but is applicable to all not English languages. It does not require a student to be bil Completion of the ESL program does not qualify the can for state certification. However, these courses may be used.	ly the on- ingual. ididate

toward certification renewal or endorsement.



## **Course Offerings**

### ED-BLESL—EDUCATION-BILINGUAL EDUCATION ED-BLESL 500 THE BILINGUAL/ESL CURRICULUM: CREATING, PLANNING, IMPLEMENTATION (3-0-3) (F/S).

For teachers preparing to teach bilingual and/or English language learners. Theory and best practices of planning and creating an effective curriculum for bilingual and ESL classrooms. Participants examine both planned curriculum based upon specific objectives, and generative curriculum based on learners' needs, experiences and interests. Students will design a model curriculum for a bilingual and/ or ESL classroom.

#### ED-BLESL 501 CULTURALLY DIVERSE LEARNERS (3-0-3)

(**F/S**). Through the use of ethnographic tools, students will gain a better understanding of cultural and linguistic issues in their schools, local, and global communities.

### ED-BLESL 502 METHODS OF TEACHING ESL: MAXIMIZING INNOVATIVE PEDAGOGICAL APPROACHES TO TEACHING

**ESL (3-0-3) (F/S).** Pedagogy of teaching ESL that will maximize language and literacy acquisition. Students will learn how to develop content subject material that is pedagogically responsible to English language learners and culturally diverse students by learning pedagogical scaffolds that place students at the center of the learning process.

## ED-BLESL 503 APPLIED THEORETICAL FOUNDATIONS OF BILINGUAL EDUCATION/ESL AND MULTICULTURALISM

**(3-0-3) (F/S).** The study and analysis of successful bilingual education, English as a Second Language, and Multicultural program practices. Students research and critique programs that demonstrate the characteristics of successful bilingual, ESL, and multicultural classrooms (i.e., teachers' ability to articulate pedagogy used in the classroom).

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

#### ED-BLESL 505 APPLIED LINGUISTICS: NURTURING COMMUNICATIVE COMPETENCE (3-0-3) (SU). A course to

assist teachers in learning the differences and similarities between the Spanish and English languages in order to teach English as a language of instruction and to promote communicative competence among English language learners. Explorations of the intersections of language, with race, class, gender and ethnicity.

#### **ED-BLESL 506 MULTICULTURAL LITERATURE: PROMOTING**

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

## ED-BLESL 507 PARENTAL INVOLVEMENT: BUILDING A COMMUNITY OF BILINGUAL/ESL LEARNERS (3-0-3)(F/S/SU).

Participants critically examine why school-community partnerships are particularly valuable in multicultural settings. They examine texts of parental involvement in schooling and actual practices and address questions of power relations, politics of exclusion and the privilege of race, gender, class, and culture. Students explore practices that respect diversity and honor all parents, students, community members, and teachers.

### ED-BLESL 508 ADVANCED THEORIES OF SECOND

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

### **ED-BLESL 509 FIELD EXPERIENCE IN BILINGUAL**

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

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

### **ED-BLESL 511 CONTEMPORARY ISSUES IN BILINGUAL**

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

## Department of Counselor Education

### Chair: Bobbie Birdsall

Education Building, Room 611 Telephone 208 426-1219 or 426-3204 e-mail: bbirdsa@boisestate.edu

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

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

## **Graduate Degrees Offered**

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

## **General Information**

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

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

## **Application and Admission Requirements**

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

Submit in one packet, to the Counseling Department Admissions Committee (annual deadline is February 1):

• letter of application describing your professional experiences as they support your desire to be a school or addictions related counselor, specific career goals, and reasons for your interest in this program. Include in the letter your vision about the role of a school or addictions related counselor;

- up-to-date resume;
- complete post-secondary transcripts (noncertified copies accepted);
- three current, sealed letters of reference supporting your qualifications for a counseling program and for graduate work.

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

## Master of Arts in Counseling

### **Graduate Program Coordinators:**

Bobbie Birdsall, School Counseling Education Building, Room 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.

### College of Education Department of Counselor Education

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

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

### **Degree Requirements**

Education

Master of Arts in Counseling	
Course Number and Title	Credits
Core	48
COUN 501 Foundations in Counseling	
COUN 502 Counseling Theories and	
Applications I3	
COUN 504 Measurement and Evaluation in	
Counseling3	
COUN 505 Counseling Theories and	
Applications II	
COUN 506 Lifespan Development2	
COUN 507 Career Development and Vocational	
Counseling 3	
COUN 508 Special Needs, Ethics and Legal Issues in	
Counseling	
COUN 509 Culturally Aware Counseling 3	
COUN 511 Family Systems	
COUN 512 Statistics and Research Design	
COUN 513 Group Counseling3	
COUN 514 Counseling Practicum I2	
COUN 516 Counseling Practicum II2	
COUN 526 Internship in Counseling I 3	
COUN 528 Internship in Counseling II 3	
COUN 547 Chemical Addiction and Violence	
Prevention	
COUN 566 Seminar: Counseling with Special	
Populations1	
COUN 568 Seminar: Professional Counseling 1	
COUN 592 Portfolio 1	
Additional Specialty Courses	12
TOTAL	60

# Graduate Certificate in Addiction Studies

(See Section on Interdisciplinary Programs)

## Graduate Certificate in Gerontological Studies

(See Section on Interdisciplinary Programs)

## Course Offerings

**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

(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

(2-2-3) (3). Examine instorteal and contemporary incortes 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) (SU).** 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 519 ELEMENTARY SCHOOL COUNSELING**

(2-0-2) (F) (Odd years). Explore evolving roles and responsibilities of elementary school counselors including curriculum development, parent and teacher consultation, developmentally appropriate interventions, emergency procedures, ethical and legal considerations, documentation, referral, and counseling skills with

children from diverse backgrounds. Analyze the organization and implementation of the *Idaho Comprehensive School Counseling Program Model* while observing in an elementary school setting. PREREQ: COUN 505 and COUN 530 or Masters in Counseling.

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

**COUN 525 CONSULTATION (1-2-2) (F/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 529 MIDDLE SCHOOL COUNSELING (2-0-2) (F) (Even years).** Explore evolving roles and responsibilities of middle school/ junior high school counselors including curriculum development, parent and teacher consultation, developmentally appropriate interventions for diverse populations, emergency procedures, ethical and legal considerations, documentation, and referral. The unique needs, stresses, and developmental concerns of this age group are included with emphasis on the organization and implementation of the *Idaho Comprehensive School Counseling Program Model* while observing in a middle/junior high school setting. PREREQ: COUN 505 and COUN 530 or Masters in Counseling.

### COUN 530 MANAGING DEVELOPMENTAL SCHOOL

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

### COUN 531 COUNSELING PRACTICUM INTENSIVE (1-4-3)

**(F/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 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) (F) (Even 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)(S). 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) (Odd years).** Examination of concepts of "mental disorders," DSM classification systems, and the diagnostic benefits and diagnostic problems inherent in such systems. An introduction and overview of the major psychopathological syndromes of adolescents and adults (especially in the area of Co-morbidity of Substance Abuse/Dependence and other DSM IV diagnoses) to facilitate appropriate use of assessment-diagnostic-treatment links (including treatment planning). May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

### COUN 551 PSYCHOPHARMACOLOGY WITH OLDER

ADULTS (1-0-1) (SU) (Even years). Examination of common psychopharmacology issues with older adults, including medications

for anxiety and depressive disorders, dementia. Drug combinations and interactions included.

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

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

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

COUN 567 (MHLTHSCI 567) CLINICAL SUPERVISION PRINCIPLES AND PRACTICE (1-0-1) (SU). 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.

## Department of Curriculum, Instruction and Foundational Studies

### **Chair: Keith Thiede**

Education Building, Room 215 Telephone 208 426-1278 e-mail: keiththiede@boisestate.edu

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

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

## **Graduate Degrees Offered**

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

## Doctor of Education in Curriculum and Instruction

**Program Coordinator:** Keith Thiede Education Building, Room 215 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**

The doctoral program involves a cohort of students in a common set of courses and experiences. The selection of a new cohort takes place prior to the summer semester. 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:

- Application for admission (available inside the current graduate catalog or at http://www.boisestate.edu/ gradcoll);
- 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 Teacher Education Graduate Programs 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., educational leadership, mathematics education, counseling psychology, special education, bilingual education, kinesiology)A current resume or vitae.
- 2. A sample of recent scholarly and/or professional writing that includes references and is preferably written in APA style (Master's thesis or project, scholarly papers, project reports, publications, grant proposals, etc.).
- 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.

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.

### **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 Teacher Education Graduate Programs Coordinator by March 1. Typical assignments involve teaching undergraduate Teacher Education courses, supervising student teachers, serving as research assistants for graduate faculty, or a combination of activities.

### **Program and Dissertation Advisors**

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

## **Degree Requirements**

The program has five components: Curriculum and Instruction, School Improvement, 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	15
ED-CIFS 610 The American Culture and the Context	
of Schooling3	
ED-CIFS 660 Learning and Cognition 3	
ED-CIFS 661 Current Issues in Teaching 3	
ED-CIFS 662 Curriculum 3	
ED-CIFS 664 Seminar in Curriculum and	
Instruction	

- continued -

Doctor of Education in Curriculum and Instruction (continued)	
School Improvement	10
ED-CIFS 611 School Culture and the Problems	
of Change 3	
ED-CIFS 612 Strategies for School Improvement 3	
ED-CIFS 620 Field Experience: Learners At-risk 2	
ED-CIFS 621 Field Experience: School	
Improvement2	
Research	12
ED-CIFS 650 Analysis of Research Perspectives 3	
ED-CIFS 651 Intermediate Statistics in	
Educational Research	
ED-CIFS 652 Quantitative Approaches to	
Research	
ED-CIFS 653 Qualitative Approaches to	
Research3	
Cognate Area	17-20
Dissertation	9-12
ED-CIFS 693 Dissertation	
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.

**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 sevenyear time limit and would constitute no more than one-third of the total credits required for the doctorate. **Residency** Boise State University requires that students accepted into the doctoral program be in continuous enrollment and complete a minimum of 23 semester credits of graduate level course work during the first 15 months of the program.

## Master of Arts in Education, Curriculum and Instruction

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

## **General Information**

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

## **Degree Requirements**

Master of Arts in Education, Curriculum and Instruction	
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
Elective Core Courses Approved two-credit elective will be listed in the class schedule as ED-CIFS 580 Selected Topics or ED-CIFS 597 Special Topics followed by the specific title of the course. The following are examples of titles that might be offered: Parents in Education School Law and Ethics Students in the Middle School Contemporary Education Policy Interpreting Educational Research NOTE: Students selecting Option II must take a research class, which may be 580 Selected Topics: Educational Research (2 credits), or ED-CIFS 503 Fundamentals of Educational Research (3 credits).	2
ED-CIFS 536 Curriculum Planning and Implementation	3
ED-CIFS 537 Instructional Theory	3

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Content elective courses       12         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.       9         Elective options:       9         Option I. Thesis or Project       9         ED-CIFS 503 Fundamentals of Educational Research	Master of Arts in Education, Curriculum and Instruction (con	tinued)
Option I. Thesis or Project         ED-CIFS 503 Fundamentals of Educational         Research	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	12
	Option I. Thesis or Project         ED-CIFS 503 Fundamentals of Educational         Research	
TOTAL 33	TOTAL	33

## Master of Arts in Education, Curriculum and Instruction Option: Physical Education Pedagogy

**Program Coordinator:** Kenneth Bell Department of Kinesiology Telephone 208 426-1228 e-mail: kbell@boisestate.edu

### **Degree Requirements**

Master of Arts in Education, Curriculum and Inst Option: Physical Education Pedagogy	ruction
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
Elective Core Courses: Students must take an approved two credit elective. These will be listed in the class schedule as "ED-CIFS 597 Special Topics: Core" followed by the specific title of the course. The following are examples of titles that might be offered: Parents in Education School Law and Ethics Students in the Middle School Contemporary Education Policy Interpreting Educational Research NOTE: Students selecting Option II must take a research class, which may be 580 Selected Topics: Educational Research (2 credits), or ED-CIFS 503 Fundamentals of Educational Research (3 credits).	2
KINES 555 Physical Education Pedagogy	3
ED-CIFS 503 Fundamentals of Educational Research <b>OR</b> KINES 551 Research Design in Exercise and Sport	3
KINES 591 Project <b>OR</b> KINES 593 Thesis	6
Approved electives	15
TOTAL	33

- continued -

#### Master of Arts in Education, Curriculum and Instruction Option: Physical Education Pedagogy (continued)

Recommended electives in Kinesiology: KINES 510 Physiology of Activity KINES 520 Biomechanics KINES 525 Mechanical Analysis of Motor Activities KINES 530 Psychology of Exercise and Sport KINES 535 Sociology of Exercise and Sport KINES 540 Applies Principles of Conditioning KINES 550 Philosophy of Exercise and Sport KINES 550 Philosophy of Exercise and Sport KINES 550 Applies Principles of Conditioning KINES 550 Philosophy of Exercise and Sport KINES 550 Philosophy of Exercise and Sport KINES 550 Philosophy of Exercise and Sport KINES 550 Motor Learning KINES 570 Health Promotion KINES 575 Computers in Exercise and Sport KINES 580 Selected Topics in Applied Sport Psychology

# Master of Education in Educational Leadership

**Program Coordinator:** Kathleen Budge Education Building, Room 211 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 (http://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. Official scores from the verbal, quantitative, and analytical reports of the Graduate Record Examination. The GRE must have been taken within seven years of application.
- 6. A sample of scholarly and/or professional writing.
- 7. Letter of recommendation from school district personnel (if employed as an educator).
- 8. Letter of application including professional goals.
- 9. 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 590 Internship	6
ED-CIFS 600 Assessment [Capstone Course]	6
Total	30

# Graduate Certificate in Secondary/K-12 Teaching

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

## **General Information**

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

### Certification in Secondary and K-12 Education

Candidates for secondary teacher certification must complete either a 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 http://www.sde.state.id.us/certification/ certmanual.asp.

Available 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 Second Language (ESL) (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)

**Application Deadlines** The first Friday of February. All admission requirements must be completed, including passing all content courses and tests, prior to beginning the program courses. Courses typically start in mid-May of each year (Summer term). **Applicants must complete both procedures listed below.** 

### Application and Admission Requirements Application Procedures

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

### College of Education Department of Curriculum, Instruction and Foundational Studies

Graduate Catalog) or on-line at http://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 on-line 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: http://www.ets.org. The PRAXIS II examinations are only administered several times a year. Passing scores must be received before applicants can be admitted.
- evidence of technology competency, which could include any of the following: passing the ETS iSkills Advanced Assessment with a minimum of 60% (see ets.org); ITM 104, 105 and 106 (or equivalent placement examination, http://itscm.boisestate.edu); EDTECH 202; or equivalent course or examination,
- a brief (1-2 page) essay that clearly lists the area or areas of certification and describes the applicant's experiences with children or schools. A copy of this essay will be given to the supervisor and cooperating teacher, and
- two letters of recommendation, describing applicant's experience working with children or schools.

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

## 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	3
Assessment in Grades 6-12	
Fall	
ED-CIFS 561 Professional Year I - Teaching	1-3
Experience I	
ED-SPED 550 Teaching Secondary Students with	3
Exceptional Needs	
ED-LTCY 544 Content Literacy In Secondary Schools	3
Content-specific methods course	3
Courses may have prerequisites in addition to the	
admission requirements.	
Spring	
ED-CIFS 550 Seminar On Teaching and Learning	3
ED-CIFS 562 - 566 Professional Year II	12
TOTAL	34-36

**Certification** Certification through Boise State University requires completion of the certification materials available in the Office of Teacher Education, Education 222. Students are recommended to the State Department of Education after meeting the following requirements.

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

## **Course Offerings**

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

### ED-CIFS 501 ADVANCED EDUCATIONAL PSYCHOLOGY

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

### **ED-CIFS 502 EDUCATION IN EMERGING NATIONS**

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

### ED-CIFS 503 FUNDAMENTALS OF EDUCATIONAL RESEARCH

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

### **ED-CIFS 504 SUPERVISION OF INSTRUCTIONAL PERSONNEL**

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

### ED-CIFS 505 PHILOSOPHY OF EDUCATION (3-0-3)(S,SU).

Students will analyze and evaluate past and contemporary philosophies and the values derived from them as they apply to education. A formal paper will be required.

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

**ED-CIFS 507 FOUNDATIONS OF AMERICAN EDUCATION (3-0-3) (S/SU).** Historical, philosophical, sociological foundations of American education. Study of the historical development of public education in the United States, with special emphasis given to questions of power, equity, and inclusion; explore major schools of educational thought, as well as the philosophy of inclusion; and apply historical understanding and philosophical analysis to contemporary issues. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching or PERM/INST.

ED-CIFS 508 LEARNING AND DEVELOPMENT OF STUDENTS (2-2-3) (S/SU). Theories of psychological and social development of children and adolescents as they apply to learning, motivation, and interaction, including the ranges of abilities and interests found in typical classrooms. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching or PERM/INST.

ED-CIFS 509 CURRICULUM, INSTRUCTION AND ASSESSMENT IN GRADES 6-12 (3-0-3) (S/SU). Curriculum planning, instructional strategies, assessment of student learning, differentiated instruction, and principles of classroom and behavior management. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching or PERM/INST.

**ED-CIFS 511 ASSESSMENT AND EVALUATION (3-0-3) (F/S).** Investigates formal and informal assessments of student, class, district, state, and national performance and achievement, and evaluation using appropriate standards. Practical applications creating relevant assessments of classroom learning are emphasized.

ED-CIFS 520 FOUNDATIONS OF GIFTED AND TALENTED EDUCATION (3-0-3) (F/S/SU). An overview of gifted/talented education. Topics may include identification, assessments, talent areas, curriculum adaptations, social needs, critical and creative thinking, legal aspects, and resources. PREREQ: PSYC 101 and ED-CIFS 203 or ED-CIFS 302 or ED-CIFS 538, or PERM/INST.

### ED-CIFS 521 CREATIVITY AND CRITICAL THINKING SKILLS

**(3-0-3) (F/S/SU).** Definition, identification, and facilitation of creativity and critical thinking skills. Topics may include overview, cognitive development, related brain research, assessment instruments, creative people, processes, and conditions for fostering creativity and models of critical thinking including creative problem solving. Demonstration of competency in identifying, fostering, assessing, demonstrating, and describing programs that foster creativity and critical thinking are required. PREREQ: PSYC 101 and ED-CIFS 203 or ED-CIFS 302 or ED-CIFS 538, or PERM/INST.

#### ED-CIFS 522 SOCIAL AND EMOTIONAL NEEDS OF GIFTED AND TALENTED LEARNERS (3-0-3) (F/S/SU). Identification

and basic intervention for basic affective needs of gifted and talented learners. Topics covered may include: emotional aspects of giftedness, suicide, perfectionism, underachievement, peer relations, gender issues, risk taking, family relations, cultural factors, twice exceptional, self-esteem, career counseling, asynchronous development, and counseling skills for teachers. PREREQ: PSYC 101 and ED-CIFS 203 or ED-CIFS 302 or ED-CIFS 538, or PERM/INST.

### ED-CIFS 530 ADVANCED PRACTICES AND PRINCIPLES IN

**TEACHING SOCIAL SCIENCE (3-0-3) (F).** A comprehensive study of the practices and principles in social science education, including objectives, social problems, unit development, work-study skills, organization of the program materials and media, and research findings basic to social studies will be developed.

## ED-CIFS 531 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING ELEMENTARY SCHOOL MATHEMATICS

**(3-0-3) (S).** Emphasis on creative methods and strategies for teaching elementary school mathematics. Also includes a review of current research, curriculum trends and exploration of experimentation with unique materials for teaching mathematics.

### ED-CIFS 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.

### College of Education Department of Curriculum, Instruction and Foundational Studies

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 550 SEMINAR ON TEACHING AND LEARNING

**(3-0-3) (S).** This hybrid seminar, consisting of campus and on-line discussion, will focus on synthesizing field experiences. Teaching as decision-making, teacher inquiry, classroom learning environments, employment preparation, adaptation of instruction, collaboration, and legal issues affecting classrooms will be addressed. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching or PERM/INST.

### ED-CIFS 553 PROFESSIONAL EDUCATION (0-1-1 to 0-3-3).

Available at special fee rate (approximately one-third of part-time education fee). Student must be an Idaho public school teacher or professional employee of an Idaho school district. Credit awarded is for professional development only and cannot be applied towards a degree program. (Pass/Fail.)

### ED-CIFS 561 PROFESSIONAL YEAR - TEACHING

**EXPERIENCE I (0-V-V)(F).** Students will work with master teachers for 50 hours per credit. They will observe the teaching/learning process (which they have studied on campus) and demonstrate competence in a P-12 school setting. (Pass/Fail.) PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching.

#### ED-CIFS 562 PROFESSIONAL YEAR - ELEMENTARY TEACHING EXPERIENCE II K-12 OPTION (1-40-6) (S). This course is reserved for students who are seeking an endorsement to teach in specific disciplines in grades 1-8. Students are given

assignments in elementary schools where they observe and teach for one-half semester under the supervision of a master teacher and a university supervisor. Available for Art, Music, and Physical Education majors only. (Pass/Fail.) PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching and approval for placement in an appropriate classroom setting. COREQ: ED-CIFS 563 or ED-CIFS 564.

### ED-CIFS 563 PROFESSIONAL YEAR – GRADES 6-9 TEACHING EXPERIENCE II K-12 OPTION (1-40-6)(S).

Supervised student teaching in a junior high/middle school. The student will be placed with a cooperating teacher for onehalf 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 onehalf 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 610 THE AMERICAN CULTURE AND THE CONTEXT OF SCHOOLING (3-0-3) (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: Admission to the doctoral program and ED-CIFS 505, ED-CIFS 506 or equivalents; or PERM/INST and ED-CIFS 505, ED-CIFS 506 or equivalents.

### ED-CIFS 611 SCHOOL CULTURE AND THE PROBLEMS OF

**CHANGE (3-0-3) (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: Admission to doctoral program and ED-CIFS 610; or PERM/INST and ED-CIFS 610.

### ED-CIFS 612 STRATEGIES FOR SCHOOL IMPROVEMENT

**(3-0-3) (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: Admission to doctoral program or PERM/INST.

### 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**/**S**U). 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 and ED-CIFS 501.

**ED-CIFS 661 CURRENT ISSUES IN TEACHING (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).** 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: Admission to the doctoral program and ED-CIFS 536 or equivalents; or PERM/INST and 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.

## Department of Educational Technology

### **Chair: Lisa Dawley**

Education Building, Room 305 Telephone 208 426-1966 e-mail: lisadawley@boisestate.edu **Associate Program Developer:** Jerry Foster

**Graduate Faculty:** Lisa Dawley, Jui-Long Hung, Ross Perkins, Constance Pollard, Kerry Rice, Chareen Snelson, Jeremy Tutty

Adjunct Graduate Faculty: Amanda Chase, Marie Collins, David Gibson, Barbara Schroeder, Donna Vakili, Janet Worthington

## **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. Minimum GRE scores are 1000 combined in verbal and quantitative, and 4.2 in analytical:
- 2. GPA of 3.0 or better
- 3. Personal Statement

## Master of Educational Technology

**Graduate Program Coordinator:** Lisa Dawley Education Building, Room 305 Telephone 208 426-1966 e-mail: lisadawley@boisestate.edu

## **Degree Requirements**

Master of Educational Technology	
Course Number and Title	Credits
Requirements:	18
EDTECH 501 Introduction to Educational	
Technology	
EDTECH 502 The Internet for Educators	
EDTECH 503 Instructional Design	
EDTECH 504 Theoretical Foundations of	
Educational Technology	
EDTECH 505 Evaluation for Educational	
Technologists	
EDTECH 506 Instructional Message Design	

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### College of Education Department of Educational Technology

Master of Educational Technology (continued)

masier of Educational technology (continued)	
Students should take at least 12 credits of elective course work from the following, possibly substituting	12
other credits upon advisor's approval.	
EDTECH 511 Interactive Courseware	
Development3	
EDTECH 512 Online Course Design	
EDTECH 513 Multimedia 3	
EDTECH 521 Online Teaching in the K-12	
Environment3	
EDTECH 522 Online Teaching for Adult Learners. 3	
EDTECH 523 Advanced Online Teaching	
Methods	
EDTECH 531 Teaching and Learning in	
Virtual Worlds	
EDTECH 532 Educational Games and	
Simulations3	
EDTECH 541 Integrating Technology	
EDTECH 542 Technology-Supported Project-Based	
Learning3	
EDTECH 551 Technical and Grant Writing	
EDTECH 552 Operating Systems and Networks 3	
EDTECH 561 Research in Educational	
Technology	
Culminating Activity	3
EDTECH 592 Portfolio 3	
TOTAL	33

## Master of Science in Educational Technology

**Graduate Program Coordinator:** Lisa Dawley Education Building, Room 305 Telephone 208 426-1966 e-mail: lisadawley@boisestate.edu

## **Degree Requirements**

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54.15
21

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Master of Science in Educational Technology (continued	d)
Students should take at least 6 credits of elective	6
course work.	
EDTECH 511 Interactive Courseware	
Development3	
EDTECH 512 Online Course Design	
EDTECH 513 Multimedia 3	
EDTECH 521 Online Teaching in the K-12	
Environment3	
EDTECH 522 Online Teaching for Adult Learners. 3	
EDTECH 523 Advanced Online Teaching	
Methods3	
EDTECH 531 Teaching and Learning in	
Virtual Worlds3	
EDTECH 532 Educational Games and	
Simulations3	
EDTECH 541 Integrating Technology	
EDTECH 542 Technology-Supported Project-Based	
Learning3	
EDTECH 551 Technical and Grant Writing	
EDTECH 552 Operating Systems and Networks 3	
Culminating Activities	6
EDTECH 593 Thesis 6	
TOTAL	33

## Graduate Certificate in Online Teaching

**Graduate Program Coordinator:** Lisa Dawley Education Building, Room 305 Telephone 208 426-1966 e-mail: lisadawley@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	
Environment3	
EDTECH 523 Advanced Online Teaching	
Methods3	
Choose one of the following:	
EDTECH 502 The Internet for Educators	
EDTECH 512 Online Course Design	
EDTECH 531 Teaching and Learning In	
Virtual Worlds3	
EDTECH 532 Educational Games and	
Simulations3	
OR	
For teachers of adult learners:	
EDTECH 512 Online Course Design	
EDTECH 522 Online Teaching for Adult Learners. 3	
Choose one of the following:	
EDTECH 502 The Internet for Educators	
EDTECH 513 Multimedia3	
EDTECH 523 Advanced Online Teaching	
Methods3	
EDTECH 531 Teaching and Learning In	
Virtual Worlds3	
TOTAL	9

## Graduate Certificate in School Technology Coordination

**Graduate Program Coordinator:** Lisa Dawley Education Building, Room 305 Telephone 208 426-1966 e-mail: lisadawley@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 541 Integrating Technology into the	9
Classroom Curriculum	
EDTECH 551 Technical and Grant Writing	
EDTECH 552 Operating Systems and Networks 3	
TOTAL	9

## Graduate Certificate in Technology Integration Specialist

**Graduate Program Coordinator:** Lisa Dawley Education Building, Room 305 Telephone 208 426-1966 e-mail: lisadawley@boisestate.edu

## **General Information**

The Graduate Certificate in Technology Integration Specialist is designed for K-12 teachers who wish to develop skills in computer technology to support the teaching and learning process. Students admitted to the certificate program are required to be familiar with all policies of the Graduate College that govern graduate certificate programs.

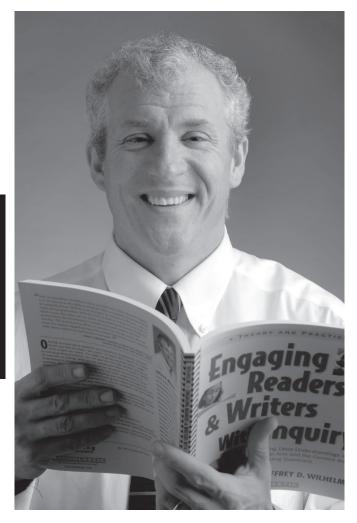
## **Admission Requirements**

Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university and admission to the Graduate College. In addition, the academic background of the applicant must be judged by the Graduate Program Coordinator to be adequate for enrollment in graduate courses in education and educational technology. However, meeting these minimum requirements does not guarantee admission to the certificate program.

## **Application Procedures**

An applicant to the certificate program must follow the general application procedures of the Graduate College for admission to a graduate program. The applicant must also submit a letter of interest to the Graduate Program Coordinator briefly summarizing his or her background and motivation for enrolling in the certificate program. Once the applicant's file is complete, it will be reviewed by the Graduate Program Coordinator who will provide an admission recommendation to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant.

### College of Education Department of Educational Technology



### 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	9
EDTECH 541 Integrating Technology into the	
Classroom Curriculum	
EDTECH 542 Technology-Supported Project-Based	
Learning	
TOTAL	9

## Course Offerings

### EDTECH-EDUCATIONAL TECHNOLOGY

EDTECH 501 INTRODUCTION TO EDUCATIONAL TECHNOLOGY (3-0-3) (F/S/SU). Overview of the field of educational technology emphasizing current issues, leadership in technology use planning, and evaluation/synthesis of research.

### EDTECH 502 THE INTERNET FOR EDUCATORS (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 INSTRUCTIONAL MESSAGE DESIGN (3-0-3) (F/S/SU). Apply learning theory, principles of visual literacy, and graphic design techniques for instructional media development. Select and combine visual and text representations to effectively

communicate instructional information. **EDTECH 511 INTERACTIVE COURSEWARE DEVELOPMENT (3-0-3) (F/S/SU).** Learning the tools for development of instructional courseware, which is the 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**/**S**U). 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 541 INTEGRATING TECHNOLOGY INTO THE

CLASSROOM CURRICULUM (3-0-3) (F/S/SU). Examination and practice in technology integration strategies in classroom environments, using various applications, instructional, and productivity software, evaluating tools and resources, and developing integrated instructional activities.

### EDTECH 542 TECHNOLOGY-SUPPORTED PROJECT-BASED

**LEARNING (3-0-3) (F/S/SU).** Examines the Project-Based Learning Model, including development of PBL-based instructional units that engage learners in projects requiring investigation, analysis, synthesis, and presentation in real-world scenarios.

### EDTECH 551 TECHNICAL AND GRANT WRITING (3-0-3)

(**F/S/SU**). Project-based instruction entailing various kinds of technical writing, all focusing on a completed grant proposal. Includes evaluating writing for print versus electronic display. Additional focus on writing proficiencies, as needed.

### EDTECH 552 OPERATING SYSTEMS AND NETWORKS

**(3-0-3) (F/S/SU).** Introduction to technical competencies for school technology coordinators, addressing network administration, topography, and devices, and advanced operating system features and configurations.

### EDTECH 561 RESEARCH IN EDUCATIONAL TECHNOLOGY

**(3-0-3) (F/S/SU).** Review and analysis of research studies in educational technology. Foundations in the relationships among research design, measurement, and statistics; methodology for designing, conducting, and reporting educational technology research. PREREQ: EDTECH 501, EDTECH 502.

### EDTECH 570 ONLINE SKILLS AND STRATEGIES (1-0-1)

**(On demand).** Students learn the fundamentals of learning online. This course gives students the conceptual and software tools that will help them be successful in the online Educational Technology Master's degree program.

## EDTECH 580 SELECTED TOPICS: TECHNOLOGY IN THE CONTENT AREA.

EDTECH 591 PROJECT (0-V-6).

EDTECH 592 PORTFOLIO (0-V-3).

EDTECH 593 THESIS (0-V-6).

## **Department of Kinesiology**

### **Chair: Ronald Pfeiffer**

Kinesiology Building, Room 209 Telephone 208 426-4270 FAX 208 426-1894 e-mail: RPfeiff@boisestate.edu

**Graduate Faculty:** Kenneth Bell, Terry-Ann Gibson, Werner Hoeger, Tyler Johnson, Laura Jones, Shelley Lucas, John McChesney, Linda Petlichkoff, Ron Pfeiffer, Mary Pritchard, Lynda Ransdell, Jane Shimon, Caile Spear, Ross Vaughn

Adjunct Graduate Faculty: Paul Baehr, Barry Cusack, Hilary Flint-Wagner, Steve Laverson, Gregory Mondin, James Moore, Kevin Shea, Shawn Simonson, Michael Womack

## **Graduate Degrees Offered**

- Master of Science in Exercise and Sport Studies, Behavioral Studies
- Master of Science in Exercise and Sport Studies, Biophysical Studies
- Master of Science in Exercise and Sport Studies, Socio-historical Studies
- Master of Physical Education in Athletic Administration
   (ISU)

## **General Information**

The Master of Science Degree in Exercise and Sport Studies is designed to accommodate students with diverse academic backgrounds.

Students are required to complete a minimum of 3 credits from each area of emphasis (CORE REQUIREMENT), plus 6 credits in "Methods of Inquiry." The student, in conjunction with his/her advisor, selects additional classes to meet the credit hour requirement for the chosen area of emphasis. All students MUST complete a thesis.

It is assumed students are seeking a program which fosters critical thought. Therefore, those graduating must be able to apply the scientific method of 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.

### College of Education Department of Kinesiology

- 3. Being 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 to the Exercise and Sport Studies Master's program with Regular Status when the following criteria are met:

- 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.
- An appropriate pattern of classes providing a foundation for the graduate area of study as determined by Kinesiology Department Graduate Faculty has been completed.
- 5. Official scores from the verbal, quantitative, and analytical reports of the Graduate Record Examination have been received. The GRE must have been taken within five years of application.
- 6. The Graduate Program Coordinator has received a resume from the applicant.
- 7. The Graduate Program Coordinator has received a letter of application describing the applicant's background, academic interests, career goals and potential faculty mentor.
- 8. The Graduate Program Coordinator recommends acceptance and approval is granted by the Graduate College.

## Master of Science in Exercise and Sport Studies

**Graduate Program Coordinator:** Shelley Lucas Kinesiology Building, Room 108A Telephone 208 426-2446 e-mail: smlucas@boisestate.edu

### **Degree Requirements**

Master of Science in Exercise and Sport Stud	ies
Course Number and Title	Credits
Core Requirements Select a minimum of one course from each of the following areas: Behavioral Studies KINES 530 Psychology of Exercise and Sport	10-11
(Enrollment is required each Fall semester of all graduate students in residence; two credits may be applied toward graduation.)	6
Methods of Inquiry KINES 551 Research Design in Exercise & Sport 3 Select one of the following courses: KINES 552 Applied Statistical Methods	
<b>Electives Approved by Graduate Committee</b> See following areas of emphasis.	15
KINES 593 Thesis TOTAL	6 <b>37-38</b>



## Master of Science in Exercise and Sport Studies, Behavioral Studies

**Graduate Program Coordinator:** Shelley Lucas Kinesiology Building, Room 108A Telephone 208 426-2446 e-mail: smlucas@boisestate.edu

## **Degree Requirements**

Master of Science in Exercise and Sport Studies, Behavioral Studies	
Course Number and Title	Credits
Core Requirements	10-11
Methods of Inquiry	6
Approved Electives	15
Suggested courses include, but are not limited to the	
following:	
KINES 535 Sociology of Exercise and Sport	
KINES 570 Health Promotion	
KINES 572 Grant Writing3	
KINES 580 Selected Topics in Applied Sport	
Psychology3	
KINES 596 Directed Research3	
KINES 593 Thesis	6
TOTAL	37-38

## Master of Science in Exercise and Sport Studies, Biophysical Studies

**Graduate Program Coordinator:** Shelley Lucas Kinesiology Building, Room 108A Telephone 208 426-2446 e-mail: smlucas@boisestate.edu

## **Degree Requirements**

Master of Science in Exercise and Sport Studi Biophysical Studies	ies,
Course Number and Title	Credits
Core Requirements	10-11
Methods of Inquiry	6
Suggested courses include, but are not limited to the following:         BIOL 531 Pharmacology	
KINES 545 Exercise Testing and Prescription3KINES 570 Health Promotion3KINES 572 Grant Writing3ME 486G Human Factors Design3ME 556 Introduction to Solid Biomechanics3ME 577 Biomaterials3MHLTHSCI 522 Management for Health Professionals3	
MHLTHSCI 530 Developing In-service Education	
KINES 593 Thesis	6
TOTAL	37-38

## Master of Science in Exercise and Sport Studies, Socio-historical Studies

**Graduate Program Coordinator:** Shelley Lucas Kinesiology Building, Room 108A Telephone 208 426-2446 e-mail: smlucas@boisestate.edu

### **Degree Requirements**

• •	
Master of Science in Exercise and Sport Studies, Socio-historical Studies	
Course Number and Title	Credits
Core Requirements	10-11
Methods of Inquiry	6
Approved Electives	15
Suggested courses include, but are not limited to the	
following:	
ED-BLESL 503 Applied Foundations and	
Multiculturalism3	
ED-CIFS 505 Philosophy of Education	
HIST 503 The Historian and the Classroom	
KINES 572 Grant Writing3	
SOC 510 Conflict and Change in Socio-Cultural	
Systems	
SOCWRK 512 Human Development Through the	
Life Cycle	
SOCWRK 514 Ethnicity, Gender and Class	
SOCWRK 521 Social Dimensions of Human	
Behavior3	
KINES 593 Thesis	6
TOTAL	37-38

## **Course Offerings**

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

### KINES-KINESIOLOGY

### KINES 403G (ZOOL 403G) HEAD AND NECK ANATOMY

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

**KINES 500 FUNCTIONAL ANATOMY (3-0-3).** A study of gross human anatomy from the descriptive approach with emphasis on the skeletal, muscular, nervous and circulatory systems. Includes cadaver dissection. In addition, indepth study of joint structure and function, gross-motor-movement, and skill will be included. Video analysis will be utilized.

**KINES 510 PHYSIOLOGY OF ACTIVITY (3-0-3).** A study of the various factors affecting human performance and subsequent adaptations of the body to single and repeated bouts of exercise.

**KINES 515 EXERCISE PHYSIOLOGY LAB (2-2-3).** Practical application of the principles that govern response and adaptation of the human body to exercise, utilizing laboratory equipment to collect data and analyze results. PREREQ: KINES 510 or PERM/INST.

**KINES 520 BIOMECHANICS (3-0-3).** A study of the internal and external forces acting on the human body and the effects produced by these forces. Analysis of movement will focus on qualitative techniques.

**KINES 525 MECHANICAL ANALYSIS OF MOTOR ACTIVITIES (3-0-3).** An introduction to the analysis techniques used to study the mechanics of human motion. Topics will include cinematography, videography, force transducers, electromyography and computer analysis techniques. PREREQ: KINES 520 or PERM/INST.

**KINES 530 PSYCHOLOGY OF EXERCISE AND SPORT (3-0-3).** A study of psychological factors as they relate to exercise, sport and performance. Content includes personality traits, motivation, anxiety/ arousal, and intervention/coping strategies.

KINES 531 PHYSICAL ACTIVITY AND AGING (3-0-3) (F/S). Physiological aspects of aging and the influence of physical activity on the aging process, functional abilities, independence, and quality of life.

**KINES 535 SOCIOLOGY OF EXERCISE AND SPORT (3-0-3).** A study of the relationships among sport and other facets of society, including social organization, group behavior and social interaction patterns.

**KINES 540 APPLIED PRINCIPLES OF CONDITIONING (2-2-3).** Advanced study of the conditioning process. Emphasis on application of the conceptual to practical situations. Involves program planning, objectives, exercise analysis for conditioning specificity, exercise prescription and other conditioning variables affecting performance. PREREQ: KINES 510 or PERM/INST.

KINES 545 EXERCISE TESTING AND PRESCRIPTION (2-2-3). A

study of the current methods and procedures used in coronary heart disease risk detection and reduction, including the recommended guidelines by the American College of Sports Medicine for exercise testing and prescription.

KINES 550 PHILOSOPHY OF EXERCISE AND SPORT (3-0-3).

A study of the philosophical foundations underlying exercise and sport. Topics include values development, design and evaluation of individual and program philosophy and goal structuring.

### KINES 551 RESEARCH DESIGN IN EXERCISE AND SPORT

**(3-0-3) (S).** Includes critical analysis of published research in terms of research design, statistical procedures, concepts of validity, experimentation and control; classification of various research methods; various types of research problems; and the relevant attributes of experimental designs. A research proposal is a requirement of the course.

### KINES 552 (MHLTHSCI 552) APPLIED STATISTICAL

**METHODS (3-0-3) (F,S).** An introduction to statistical techniques utilized in the treatment of data. The techniques to be covered include measures of central tendency and variability, correlation 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 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.

#### KINES 580 SELECTED TOPICS IN APPLIED SPORT PSYCHOLOGY (3-0-3).

**KINES 590 PRACTICUM (0-9-3).** Available on a selective, limited basis. Culminating experience designed to provide students with an opportunity to apply skills learned in the classroom. PREREQ: PERM/INST.

**KINES 593 THESIS (6 credits).** A scholarly paper containing the results of original research. PREREQ: Admission to candidacy and approval of the student's graduate committee.

**KINES 596 GRADUATE INDEPENDENT STUDY (Variable credit).** Opportunity for the student to pursue a topic of interest on an individual basis.

# Master of Physical Education in Athletic Administration

### **ISU/BSU Cooperative Program**

**Graduate Program Coordinator:** Shelley Lucas Kinesiology Building, Room 108A Telephone 208 426-2446 FAX 208 426-1894 e-mail: smlucas@boisestate.edu

### Idaho State University Graduate Faculty:

Karen Appleby, John Fitzpatrick, Mike Lester, Gerard Lyons

## **General Information**

The Master of Physical Education in Athletic Administration is a cooperative graduate studies program. Idaho State University (ISU) and Boise State University (BSU) have agreed to offer ISU's existing Master of Physical Education (MPE) graduate degree in Athletic Administration in Boise. Entering students will be able to complete the entire 33 credit hour degree in Boise and take up to 15 credits of BSU courses as part of the program requirements. Further stipulations of this cooperative venture are:

- 1. ISU will continue to be the degree granting institution. **Students will initially apply for admission to ISU, and if accepted, apply for admission to BSU. An application fee must be paid to each institution.** Courses from both institutions that are offered in Boise will be printed in the *Boise State University Schedule of Classes* after Kinesiology courses and listed under a separate and distinct heading of "Athletic Administration (ATHLADM)". Under the title of each course it will be stated that the course is part of the ISU Cooperative Athletic Administration Program.
- 2. ISU Graduate Faculty should formally advise all students. A BSU student may request an advisor from BSU. The ISU SSPED Graduate Program Coordinator must approve this request.
- 3. ISU Graduate Faculty should chair all projects, Thesis, and comprehensive exam committees. A BSU student may request that a BSU Graduate Faculty member serve as major advisor. This request must be approved by the ISU SSPED Graduate Program Coordinator. BSU faculty who hold At-Large Graduate Faculty status at ISU may serve as committee members and upon request will submit comprehensive examination questions and participate in the evaluation of same.

## **Application and Admission Requirements**

Students will register at Boise State University for all ISU and BSU courses taken in Boise in accordance with the procedures stated in the *Boise State University Schedule of Classes*.

Students will pay fees to Boise State University and receive BSU activity cards (consistent with current BSU practices for full-time and part-time students) and thereby receive the appropriate services and use of campus facilities.

### **Financial Aid**

Students taking ISU and/or BSU courses in Boise will be considered as "in-residence" at Boise State. Therefore, students applying for financial aid will do so through the Financial Aid Office at Boise State.

Due to a limited number and amount of scholarship funds at BSU, scholarship monies are not available to students in cooperative programs. If there are scholarships at ISU specifically earmarked for the Athletic Administration program, or if scholarships are developed for this program, they will be awarded by ISU and handled through the BSU Financial Aid Office as are all other outside donor awards.

### Graduation

Education

Idaho State University graduation requirements must be met by each student seeking an MPE degree in Athletic Administration. Therefore, students must apply for graduation through ISU and a final evaluation of their transcripts will be completed by the ISU Registrar.

## **Degree Requirements**

Master of Physical Education in Athletic Administration ISU/BSU Cooperative Program	
Course Number and Title	Credits
Students in the Cooperative MPE degree in Athletic         Administration between ISU and BSU would be limited         to taking a maximum of 15 BSU credits, subject to         approval from their ISU advisor.         ATHLADM 505 (PE 605) Leadership and         Administration         ATHLADM 515 OR KINES 550 (PE 615) Philosophy         of Exercise and Sport         OF Exercise and Sport         ATHLADM 531 (PE 631) Athletics and the Law3         ATHLADM 535 (PE 635) Management of         Athletics         ATHLADM 540 OR KINES 551 (PE 640) Research         and Writing       3         ATHLADM 549 (PE 649) Issues in         Administration       3	18
Thesis Option         ATHLADM 550 (PE 650) Thesis         Approved Electives         9         OR         Non-thesis Option         ATHLADM 510 (PE 610) Advanced Sport         Psychology OR         KINES 530 Psychology of Exercise and Sport 3         ATHLADM 545 (PE 645) Sports Medicine         3         ATHLADM 555 (PE 655) Internship         1-6         Approved Electives	15
TOTAL	33

## **Department of Literacy**

### **Chair: Stan Steiner**

Education Building, Room 504 Telephone 208 426-2862 e-mail: stansteiner@boisestate.edu

**Graduate Faculty:** James Armstrong, Mary Anne Cahill, Margaret Chase, Lee Dubert, Anne Gregory, Susan Martin, Stanley Steiner, Roger Stewart

## **Graduate Degree Offered**

- Master of Arts in Education, Reading
- Reading Endorsement K-8, 6-12 or K-12

## **General Information**

Nationally recognized faculty in the Department of Literacy provide a balanced approach to reading instruction through literacy courses that serve early childhood through adults. The variety of coursework is designed to prepare graduate students to become reading specialists in the public and private sectors, obtain an Idaho State Reading Endorsement, complete a doctoral cognate in literacy, help teachers of reading enhance their classroom skills, and to become leaders in the field of literacy. Weekend and conventional delivery classes include reading, writing, listening, speaking, viewing, and technology skills. Our mission is to bring the joys of literacy to all.

## Master of Arts in Education, Reading

**Graduate Program Coordinator:** Stan Steiner Education Building, Room 508 Telephone 208 426-2862 e-mail: stansteiner@boisestate.edu

## **Degree Requirements**

Master of Arts in Education, Reading	
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
Elective Core Courses	2
Approved two-credit elective will be listed in the	
class schedule as ED-CIFS 597 Special Topics: Core	
followed by the specific title of the course. The	
following are examples of titles that might be offered:	
Parents in Education	
School Law and Ethics	
Students in the Middle School	
Contemporary Education Policy	

- continued -

Master of Arts in Education, Reading (continued)	
ED-LTCY 540 Foundations of Reading Instruction	3
ED-LTCY 541 Assessment and Instruction: Reading	3
Difficulties K-12	
ED-LTCY 542 Best Practices in Literacy Improvement	3
ED-LTCY 543 Seminar in Literacy Education	3
Elective Options:	15
Option I. Thesis or Project	
ED-CIFS 503 Fundamentals of Educational	
Research	
ED-LTCY 591 Project <b>OR</b>	
ED-LTCY 593 Thesis 6	
Reading electives	
Approved electives	
(A thesis or project, as mutually agreed upon by the candi-	
date and the committee, is required. Selection of a thesis	
implies a research emphasis with a thesis format. Selection of a project implies a project related to instruction, curricu-	
lum, or some other aspect of an educational program.)	
Option II. Comprehensive Written Examination:	
(A comprehensive written examination is required at the	
end of the course work. This examination is to be tailored by each candidate's committee specifically for that candidate	
following guidelines established by the department. Candi-	
date must be enrolled in a minimum of one credit (ED-LTCY	
600 or other for the comprehensive written examination.	
After the candidate has completed the written portion of the examination, the committee will meet with the candidate	
for an oral review prior to final approval or rejection of the	
written examination.)	
ED-CIFS 505 Philosophy of Education <b>OR</b>	
ED-CIFS 503 Fundamentals of Educational	
Research 3	
NOTE: Students selecting Option II must take a research	
class, which may be ED-CIFS 597 Special Topics: Core- Interpreting Educational Research (2 credits) or ED-CIFS	
503 Fundamentals of Educational Research (3 credits).	
Reading electives	
Approved electives	
TOTAL	33
NOTE: Completion of the required courses in the Master of Arts in	
Education, Reading emphasis may not qualify the candidate for a	
reading endorsement for state certification. With the assistance of	
or her advisor, the candidate can select appropriate electives to me endorsement requirements.	eet
endorsement requirements.	

**Reading Endorsement** The endorsement in reading provides enhanced depth and breadth of course work in reading and language arts. This enhanced knowledge allow the student to be endorsed in reading education K-8, 6-12 or K-12. Twenty semester credits are required. Which includes a minimum of one or more courses from each of the five following areas: Foundations of Reading or Developmental Reading, Content Area Reading, Corrective/Diagnostic/ Remedial Reading, Psycholinguistics/Language Development and Reading, and Literature for Children and Adolescents. The courses listed here represent suggestions that fulfill the 20-credit endorsement. Of the minimum twenty (20) semester credit hours needed for this endorsement, sixteen (16) credit hours must be divided among Areas I-V so that credit hours are earned from each area. Additional credit hours as needed, taken from area VI will satisfy the endorsement credit requirements.

Reading Endorsement K-8, 6-12 or K-12	
Course Number and Title	Credits
Area I: Foundations of Developmental Reading ED-LTCY 540 Foundations of Reading Instruction ED-LTCY 549/594/597 Idaho Comprehensive Literacy Course	3
Area II: Reading in the Content Area (ED-LTCY 544 and 550 are required for K-12 endorsement) Idaho has endorsements for K-8, 6-12 and K-12. Secondary students wanting the K-12 certification must take an elementary reading methods course. ED-LTCY 550 Content Area Literacy: K-8 (Required for K-8 endorsement only) ED-LTCY 544 Content Literacy in Secondary School (Required for 6-12 endorsement only)	3-6
Area III: Corrective/Diagnostic/Remedial Reading ED-LTCY 541 Assessment and Instruction: Reading Difficulties K-12 <b>AND</b> ED-LTCY 542 Best Practices in Literacy Improvement	3-6
Area IV: Psycholinguistics/Language Development and Reading (Choose at least one) ED-ECS 524 Early Childhood: Language Acquisition and Development ED-LTCY 548 Psycholinguistics and Literacy ENGL 505 Linguistics	3
Area V: Literature for Children or Adolescents (Choose at least one) ED-LTCY 546 Advanced Study of Children's Literature ED-LTCY 547 Advanced Young Adult Literature ENGL 581 Literature for Use in Junior and Senior High Schools	3

- continued -

Education

### College of Education **Department of Literacy**

Reading Endorsement K-8, 6-12 or K-12 (continued)	
Area VI: Choose electives to total 20 credits from the	0-4
following list.	
ED-LTCY 532 Advanced Principles and Practices in	
Teaching Language Arts and Linguistics	
ED-LTCY 543 Seminar in Literacy	
ED-LTCY 545 Teaching Writing in Elementary	
Schools	
ED-LTCY 590 Practicum/Internship	
ED-LTCY 591 Project	
ED-LTCY 593 Thesis	
ED-LTCY 594 Conference or Workshop	
ED-LTCY 596 Directed Research	
ED-LTCY 597 Special Topics	
ENGL 502 Teaching Fiction, Non-Fiction and Poetry	
Writing (Secondary)	
ENGL 597 Selective Topics in Teaching English	
Language Arts (Secondary)	
TOTAL	20

Education

## **Course Offerings**

### ED-LTCY-EDUCATION-LITERACY

#### **ED-LTCY 532 ADVANCED PRINCIPLES AND PRACTICES IN TEACHING LANGUAGE ARTS AND LINGUISTICS (3-0-3)**

(F). 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) (F/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) (S/SU). Diagnostic instructional and assessment procedures will be used with 1-3 elementary or secondary students in the Boise State Tutoring Program in Reading. Each participant prepares a professional quality client report. One meeting per week with the client outside of class time is required. PREREQ: ED-LTCY 541 or the equivalent.

### **ED-LTCY 543 SEMINAR IN LITERACY EDUCATION (3-0-3)**

(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 TEACHING WRITING IN ELEMENTARY**

SCHOOLS (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). 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) (S). Offers an update in diverse young adult literature, as well as research, critical analysis and instructional strategies for a variety of settings. Intended for teachers, librarians, media generalists, and others working with young adults.

### **ED-LTCY 548 PSYCHOLINGUISTICS AND LITERACY (3-0-3)**

(F/SU). Psychological processes and strategies by which readers and writers construct and reconstruct the message of a text. Application of theoretical conclusions to teaching practices.

### **ED-LTCY 549 IDAHO COMPREHENSIVE LITERACY COURSE**

(3-0-3) (F/S/SU). Research-based best reading practices focused on language structure and literacy instruction, comprehension research, material selection, and assessment and intervention strategies. Contemporary and historical perspectives will be examined.

### ED-LTCY 550 CONTENT AREA LITERACY: K-8 (3-0-3)(F/S).

Knowledge, strategies, and tools for comprehension and vocabulary, and introduction to writing of narrative and expository texts in content areas. For students seeking K-8 Idaho State Reading Endorsement.

### ED-LTCY 590 PRACTICUM/INTERNSHIP (1-3 Credits).

ED-LTCY 591 PROJECT (3-6 Credits)(Pass/Fail).

ED-LTCY 593 THESIS (6 Credits)(Pass/Fail).

**ED-LTCY 594 CONFERENCE OR WORKSHOP (1-3 Credits)** (Pass/Fail).

ED-LTCY 596 DIRECTED RESEARCH (1-3 Credits)(Pass/Fail). ED-LTCY 597 SPECIAL TOPICS (1-3 credits) (Pass/Fail).

ED-LTCY 600 ASSESSMENT [Comprehensive Examination] (1-3 credits)(Pass/Fail).

**ED-LTCY 697 SPECIAL TOPICS IN LITERACY (1-3 Credits)** (Pass/Fail).

### College of Education Department of Special Education and Early Childhood Studies

## Department of Special Education and Early Childhood Studies

### **Chair: Keith Allred**

Education Building, Room 203 Telephone 208 426-2814 e-mail: rfleming@boisestate.edu

**Graduate Faculty:** Keith Allred, Beatrice Harris, Jack Joseph Hourcade, Michael Humphrey, Evelyn Johnson, Julie Pool, Lee Woods

Adjunct Graduate Faculty: Elizabeth Noonan, Mary Olsen, Charlotte Silva

## **Graduate Degrees Offered**

- Master of Arts in Education, Early Childhood Studies
- Master of Education in Early Childhood Studies
- Master of Arts in Special Education
- Master of Education in Special Education

## **General Information**

The mission of the master's degrees in Early Childhood Studies is to provide advanced professional preparation for candidates with a common core and specialization in early childhood studies. The program blends two disciplines, early childhood education and early childhood special education. Thus, a candidate is qualified to work with all young children, birth through grade three. The program may or may not lead to certification to teach in public schools depending on the goals of the candidate. The Master of Arts requires a thesis, and the Master of Education requires a project or comprehensive examination.

Special Education graduate programs are designed for experienced professionals who seek advanced knowledge and skills in the field of special education. Such professionals may be employed as special educators in public schools, or they may work with or on behalf of individuals with disabilities in community or agency settings.

The Master of Arts in Special Education and Master of Education in Special Education are similar in course work requirements but differ in the culminating activity. The Master of Arts culminates in a thesis and is designed for candidates interested in scholarly research. The Master of Education culminates in either a comprehensive examination or a project and is designed for practitioners.

**Note:** Completion of the required courses in a Special Education graduate program does not qualify the candidate for initial certification to teach special education in public schools. The candidate should seek the help of an advisor to plan additional course work that satisfies certification requirements.

## Master of Arts in Education, Early Childhood Studies

**Graduate Program Coordinator:** Keith Allred Education Building, Room 203 Telephone 208 426-2814 e-mail: keithallred1@boisestate.edu

## **Degree Requirements**

### Master of Arts in Education, Early Childhood Studies

Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
Elective Core Courses	2
Approved two-credit elective will be listed in the	
class schedule as ED-CIFS 597 Special Topics: Core	
followed by the specific title of the course. Early	
Childhood Studies Coursework	
ED-ECS 521 Readings: ECE/ECSE	3
ED-ECS 522 Development and Curriculum: ECE/ECSE	3
ED-ECS 523 Early Learning Models: ECE/ECSE	3
ED-ECS 524 Play, Language Acquisition, and Literacy:	3
ECE/ECSE	
ED-ECS 525 Leadership: ECE/ECSE	3
Culminating Activity Coursework	
ED-CIFS 503 Fundamentals of Educational Research	3
ED-CIFS 593 Thesis	6
Approved Electives	3
TOTAL	33
Note: Completion of the required courses in the Master of Arts in Education, Early Childhood Studies does not qualify the candidate	for

Education, Early Childhood Studies does not qualify the candidate for state certification in Blended Early Childhood/Early Childhood Special Education. The candidate should seek advising to determine certification requirements

## Master of Education in Early Childhood Studies

### Graduate Program Coordinator: Keith Allred

Education Building, Room 203 Telephone 208 426-2814 e-mail: keithallred1@boisestate.edu

## **Degree Requirements**

Master of Education in Early Childhood Stud	ies
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
Elective Core Courses Approved two-credit elective core courses are listed in the class schedules as ED-CIFS 597 Special Topics: Core followed by the specific title of the course Early Childhood Studies Coursework ED-ECS 521 Readings: ECE/ECSE ED-ECS 522 Development and Curriculum: ECE/ ECSE ED-ECS 523 Early Learning Models: ECE/ECSE ED-ECS 524 Play, Language Acquisition, and Litement ECE/ECSE	2 3 3 3 3 3 3
Literacy: ECE/ECSE ED-ECS 525 Leadership: ECE/ECSE	3
Culminating Activity Options:         Option 1: Project         ED-CIFS 503 Fundamentals of Educational         Research	12
TOTAL	33
NOTE: Completion of the required courses in the Master of Educati Childhood Studies does not qualify the candidate for state certifica in Blended Early Childhood/Early Childhood Special Education. The candidate should seek advising to determine certification requirem	tion he

## Master of Arts in Special Education

**Graduate Program Coordinator:** Keith Allred Education Building, Room 203 Telephone 208 426-2814 e-mail: keithallred1@boisestate.edu

## **Degree Requirements**

Master of Arts in Special Education	
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
Elective Core Courses	2
Approved two-credit elective core courses are listed	
in the class schedule as ED-CIFS 597 Special Topics:	
Core followed by the specific title of the course.	
Special Education Coursework	
ED-SPED 551 Counseling and Consulting Skills for	3
Educators	
ED-SPED 552 Instructional Design for Special	3
Educators <b>OR</b>	
ED-SPED 556 Seminar in Severe Disabilities	
ED-SPED 554 Students with Emotional Disturbances	3
or Behavior Disorders	_
ED-SPED 555 Issues and Trends in Special	3
Education	
ED-SPED 590 Practicum: Special Education	3
Culminating Activity Coursework	
ED-CIFS 503 Fundamentals of Educational Research	3
ED-SPED 593 Thesis	6
Approved electives	3
TOTAL	33

# Master of Education in Special Education

### Graduate Program Coordinator: Keith Allred

Education Building, Room 203 Telephone 208 426-2814 e-mail: keithallred1@boisestate.edu

## **Degree Requirements**

Master of Education in Special Education	
Course Number and Title	Credits
ED-CIFS 506 Graduate Core: Issues in Education	4
Elective Core Courses	2
Approved two-credit elective core courses are listed	
in the class schedule as ED-CIFS 597 Special Topics:	
Core followed by the specific title of the course.	
Special Education Coursework	
ED-SPED 551 Counseling and Consulting Skills for	3
Educators	
ED-SPED 552 Instructional Design in Special	3
Education <b>OR</b>	
ED-SPED 556 Seminar in Severe Disabilities	
ED-SPED 554 Students with Emotional Disturbances	3
or Behavior Disorders	
ED-SPED 555 Issues and Trends in Special	3
Education	
ED-SPED 590 Practicum: Special Education	3
General Education coursework	
ED-CIFS 503 Fundamentals of Educational Research	3
Culminating Activity Options:	9
Option 1: Project	
ED-SPED 591 Project 6	
Approved electives3	
Option 2: Comprehensive Examination	
ED-SPED 600 Assessment [Comprehensive	
Examination]1	
Approved electives	
TOTAL	33

## **Course Offerings**

ED-ECS-EDUCATION-EARLY CHILDHOOD STUDIES

### ED-ECS 503 ASSESSMENT FOR K-3 PROGRAM PLANNING

**(2-0-2) (S).** State, formal, and informal assessments with emphasis on developmentally appropriate program planning. Procedures for screening and eligibility determination, development of individualized Education Plans, and understanding NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST.

### **ED-ECS 506 INFANTS AND TODDLERS IN NATURAL**

**ENVIRONMENTS: ECE/ECSE (3-0-3) (S).** Development of infants, both typically developing and those with delays and disabilities and program planning. Focus on attachment processes, learning in naturalistic environments, and communication with families. NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST.

#### ED-ECS 507 ASSESSMENT FOR BIRTH-TO-FIVE PROGRAM PLANNING: ECE/ECSE (2-0-2) (S). State, informal, and formal assessment of infants and preschool age children, both typically and atypically developing, with emphasis on program planning, intervention, and communication with families. NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST.

**ED-ECS 508 PRESCHOOL CURRICULUM: ECE/ECSE (3-0-3) (F).** Developmentally appropriate curriculum and materials for preschool age children, both typically developing and those with delays and disabilities. NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST.

### **ED-ECS 516 SOCIAL STUDIES, SCIENCE, AND MATH CURRICULA AND INSTRUCTION (3-0-3) (S).** Primary grade social studies, science, and math curricula, philosophy, and goals.

Developmentally appropriate content and materials, with integration across disciplines emphasized. NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST. COREQ: ED-ECS 562.

**ED-ECS 521 EARLY CHILDHOOD: READINGS (3-0-3)(S).** Past and current research in early childhood education will be reviewed and synthesized in a seminar format. Students will determine a specific research area to study in depth.

### ED-ECS 522 DEVELOPMENT AND CURRICULUM: ECE/ECSE

**(3-0-3) (F).** Development in all domains is examined in depth, birth to age eight. Curriculum is examined as it fosters development in ALL young children.

### ED-ECS 523 EARLY LEARNING MODELS: ECE/ECSE

**(3-0-3) (S).** Models of effective early childhood education, birth to age eight, for ALL young children and their families.

### ED-ECS 524 PLAY, LANGUAGE ACQUISITION, AND

LITERACY: ECE/ECSE (3-0-3) (F). Language development, acquisition and the relationship between play, language and emergent literacy in ALL young children, birth to age eight.

### College of Education Department of Special Education and Early Childhood Studies

**ED-ECS 525 LEADERSHIP: ECE/ECSE (3-0-3)(S).** Refining practice through reflection, collaboration with colleagues and communities, and advocacy for ALL young children and their families. Fieldwork is required.

### ED-ECS 562 TEACHING EXPERIENCE IN PRIMARY GRADES:

**ECE/ECSE (0-V-V) (F/S).** Primary grade student teaching experience for graduate students pursuing the ECE/ECSE blended certificate. Teaching responsibility in inclusive and pullout classrooms for children with and without delays and disabilities. Seminars are conducted. Experience is consistent with state certification standards, and NAEYC and DEC standards of practice (Pass/Fail.) PREREQ: Graduate Standing or PERM/INST. COREQ: ED-ECS 516.

ED-ECS 563 TEACHING EXPERIENCE IN PRESCHOOL PROGRAMS: ECE/ECSE (0-V-V) (F/S). Preschool student teaching experience for graduate students pursuing the ECE/ECSE blended certificate. Teaching responsibility in inclusive and pullout classrooms for children with and without delays and disabilities. Seminars are conducted. Experience is consistent with state certification standards, NAEYC, and DEC standards of practice (Pass/Fail.) PREREQ: Graduate Standing or PERM/INST. COREQ: ED-ECS 516.

ED-ECS 564 TEACHING EXPERIENCE IN NATURAL ENVIRONMENTS, BIRTH TO THREE: ECE/ECSE (0-V-V) (F/S/SU). Infant/toddler program student teaching experience for graduate students pursuing the ECE/ECSE blended certificate. Responsibilities in a natural environment, center or home, for infants and toddlers with and without disabilities including family contact. Weekly seminars. Experience is consistent with state certification standards, NAEYC, and DEC standards of practice. Student must obtain a city childcare license. (Pass/Fail.) PREREQ: Graduate Standing or PERM/INST, ED-ECS 516 and ED-ECS 507.

ED-ECS 600 ASSESSMENT [Comprehensive Examination] (1-0-1)(Pass/Fail).

### ED-SPED—EDUCATION-SPECIAL EDUCATION

ED-SPED 550 TEACHING SECONDARY STUDENTS WITH EXCEPTIONAL NEEDS (3-0-3) (F/S). Education of students with

exceptional needs at the secondary level. Characteristics of students with with disabilities, relevant legislation, assessment techniques, curricular adaptations and accommodations, and collaboration. PREREQ: Admission to Graduate Secondary Teacher Certification.

ED-SPED 551 COUNSELING AND CONSULTING SKILLS FOR EDUCATORS (3-0-3)(S). Theories and approaches to counseling and consulting, communication skills, and intervention programs for educators working with families of students with disabilities.

**ED-SPED 552 INSTRUCTIONAL DESIGN FOR SPECIAL EDUCATORS (3-0-3) (F) (Even years).** Advanced instructional design components to more effectively teach individuals with disabilities, including theoretical and programmatic considerations.

ED-SPED 554 STUDENTS WITH EMOTIONAL DISTURBANCES OR BEHAVIOR DISABILITIES (3-0-3) (F/SU). Current best

practices in development of instructional and behavioral programs for students with severely challenging behaviors.

**ED-SPED 555 ISSUES AND TRENDS IN SPECIAL EDUCATION (3-0-3) (S).** Current issues and trends in the field of special education, targeting such areas as eligibility, assessment, parents, and service delivery options. Seminar format with student presentations.

ED-SPED 556 SEMINAR IN SEVERE DISABILITIES (3-0-3)(S) (Odd years). Advanced professional knowledge and skills relevant to providing services to individuals with severe disabilities, with special attention to contemporary issues and trends in the field.

ED-SPED 590 PRACTICUM/INTERNSHIP (1-3 Credits).

ED-SPED 591 PROJECT (1-6 Credits)(Pass/Fail).

ED-SPED 593 THESIS (1-6 Credits)(Pass/Fail).

ED-SPED 596 INDEPENDENT STUDY (1-3 Credits).

ED-SPED 600 ASSESSMENT [Comprehensive Examination] (1-3 Credits)(Pass/Fail).



# **College of Engineering**

### Dean: Cheryl B. Schrader

Telephone 208 426-1153

### Associate Dean for Academic Affairs: Janet Callahan

Telephone 208 426-1450 Engineering Technology Building, Room 338 FAX 208 426-4466 http://coen.boisestate.edu

#### Assistant Dean for Research and Infrastructure: Rex Oxford

Telephone 208 426-5744 e-mail: roxford@boisestate.edu

### **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 Instructional & Performance Technology
- Master of Science in Mechanical Engineering
- Master of Engineering in Mechanical Engineering
- Master of Science in Materials Science and Engineering (See Interdisciplinary Programs)
- Master of Engineering in Materials Science and Engineering (See Interdisciplinary Programs)
- Graduate Certificate in Human Performance Technology

## **General Information**

There are six departments that grant graduate degrees in the College of Engineering at Boise State University: Civil Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Biomedical Engineering, Materials Science and Engineering, and Instructional & Performance Technology. These departments serve the mission of the College of Engineering by providing accessible, high-quality, nationally recognized programs of instruction, research, and service that prepare students for engineering and other high technology careers, and that support individuals and organizations in Idaho, the Northwest region, and the nation.

The graduate programs in the College of Engineering are offered in a variety of degree options and delivery methods to accommodate student interests and career needs. The Master of Science degrees in Civil Engineering, Computer Engineering, Electrical Engineering, Mechanical Engineering and Materials Science and Engineering, are thesis-based programs designed to prepare students for careers that involve a research component in their field. The thesis-based options often provide funding to students pursuing these options. The Master of Engineering degrees are non-thesis programs that may be satisfied by an approved selection of coursework and culminating activities. A number of graduate level courses are available in an on-line 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 on-line 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.

### College of Engineering Department of Civil Engineering

## Department of Civil Engineering

### **Chair: Robert Hamilton**

Engineering and Technology Building, Room 201 Telephone 208 426-3764 FAX 208 426-4800 http://coen.boisestate.edu/ce/msece.asp

Graduate Faculty: Arvin Farid, Molly Gribb,

Robert Hamilton, David Haws, Mandar Khanal, Sondra Miller, Rebecca Mirsky, George Murgel, Venkataramana R. Sridhar

## **Graduate Degrees Offered**

- Master of Science in Civil Engineering
- Master of Engineering in Civil Engineering

### **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 thesisbased program designed to prepare students for research and development and further study at the doctoral level. The program leading to the Master of Engineering in Civil Engineering (M.Engr. CE) is a non-thesis program with a focus on professional development.

## **Application and Admission Requirements**

Admission Requirements An applicant must satisfy the minimum admission requirements of the Graduate College. In addition, the applicant must hold a baccalaureate degree in civil engineering from an ABET-accredited program or a baccalaureate degree in a closely related field, and must follow the application procedures specified below. Admission is competitive and the achievement of minimum requirements does not guarantee admission.

**Application Procedures** A prospective student may apply at any time and should follow the general graduate application procedure for degree-seeking students (see Applying as a Degree-Seeking Student in this catalog). The applicant must also (1) submit a statement of purpose to the graduate program coordinator of the Department of Civil Engineering, and (2) arrange to have GRE General Test scores submitted by the Educational Testing Service (www.ets.org) directly to Boise State University (code R4018). The statement of purpose should give the educational and professional background of the student and his or her motivation for graduate study including career goals. Applicants holding a baccalaureate degree from the College of Engineering of Boise State University are not required to submit GRE scores. International students must arrange to have three letters of recommendation submitted directly by the references to the Boise State University International Admissions Office. Once the applicant's file is complete, it will be evaluated by the Civil Engineering Graduate Studies Committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the Dean of the Graduate College. In order to ensure proper mentoring of all graduate students, a recommendation for regular or provisional admission will not be forwarded unless a faculty member of the Department of Civil Engineering is available to serve as the major advisor. The graduate dean will make the final admission decision and notify the applicant and the Civil Engineering Graduate Studies Committee.

## Advisor and Supervisory Committee

The Civil Engineering Graduate Studies Committee will assign a supervisory committee (including a major advisor who serves as chair) for each admitted student. The role of the supervisory committee is to guide the student in all aspects of his or her graduate study.

## Master of Science in Civil Engineering

**Graduate Program Coordinator:** George Murgel Micron Engineering Center, Room 403D 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	15-24
Graduate courses in civil engineering; all courses to	
be selected with student input and approved by the	
supervisory committee.	
· •	

- continued -

Civil Engineering (continued)	
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
<b>Thesis</b> CE 593 Thesis (P/F)	6
TOTAL	31

## Master of Engineering in Civil Engineering

**Graduate Program Coordinator:** George Murgel Micron Engineering Center, Room 403D 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
<b>Graduate CE Courses</b> 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 (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. CE or M.Engr. CE) with the approval of the supervisory committee.

## **Course Offerings**

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

### **CE-CIVIL ENGINEERING**

**CE 452G STRUCTURAL STEEL DESIGN (2-3-3) (F/S).** Design of steel structures, such as beams and columns, in accordance with latest AISC Manual of Steel Construction, LRFD edition. PREREQ: CE 352.

### CE 460G GEOTECHNICAL ENGINEERING DESIGN (3-0-3)

**(F/S).** Subsoil exploration and site investigation methodologies. Soil mechanics in design of earth retaining structures, shallow and deep foundations, embankments, slopes, and excavations. PREREQ: CE 360 and CE 361.

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

### CE 516 (GEOPH 516)(GEOS 516) HYDROLOGY (3-0-3)(S).

Interdisciplinary earth science concerned with movement and occurrence of water. Watershed-based hydrologic phenomena including hydrologic cycle water-cycle analysis, precipitation, evapotranspiration, snow/snowmelt, streamflow, floods, routing and surface runoff events. Application of analytical techniques to solve water resource problems. May be taken for CE, 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 530 (GEOS 530) VADOSE ZONE HYDROLOGY

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

#### CE 533 (GEOS 533) CONTAMINANT TRANSPORT (3-0-3)

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

(**r**/**5**). 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 areawide 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 (GEOS 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 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 (GEOS 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 credit in CE, GEOPH, or GEOS, but not for more than one department. PREREQ: CE 623 or GEOPH 623 or GEOS 623 or PERM/INST.

#### **ENGR – ENGINEERING SCIENCE**

**ENGR 500 RESEARCH METHODS (1-0-1) (F/S).** Topics include defining a thesis or other research project, library and internet searching techniques, completing a literature review, preparing a research or project plan, research methods, preparing the thesis proposal, preparing the final thesis or research project document, and preparing a successful oral presentation.

Engineering

# Department of Computer Science

#### Chair: Murali Medidi

Engineering and Technology Building, Room 240B Telephone 208 426-3317 FAX 208 426-2470 http://cs.boisestate.edu e-mail: murali@cs.boisestate.edu

**Graduate Faculty:** Tim Anderson, James Buffenbarger, Amit Jain, Murali Medidi, Sirisha Medidi, Michael Stark, Gang-Ryung Uh, Jyh-haw Yeh , GongXin Yu

Adjunct Graduate Faculty: Teresa Cole

# Master of Science in Computer Science

**Graduate Program Coordinator**: Amit Jain Micron Engineering Center, Room 302M Telephone 208 426-3821 e-mail: amit@cs.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 only fixed requirements are three "core" classes in algorithms, architecture, and operating systems. The remainder of the course work is to be chosen by the student, in consultation with his/her adviser and the graduate computer science 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 adviser 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
Core Computer Science Courses	10
COMPSCI 521 Design and Analysis of	
Algorithms	
COMPSCI 542 Quantitative Computer Architecture 3	
COMPSCI 552 Operating Systems 4	
Other Graduate Courses	11-17
Graduate courses in computer science or a related	
field; all courses to be selected with student input	
and approved by the supervisory committee.	
One of the following culminating activities	
Thesis or Project Option	3-9
COMPSCI 591 Project 3-6	
OR	
COMPSCI 593 Thesis 6-9	
TOTAL	30

# Course Offerings

#### 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 either COMPSCI or ECE credit, but not both. PREREQ: COMPSCI 117 or COMPSCI 125 and ECE 332 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 332 or PERM/INST.

#### COMPSCI 554 ADVANCED OPERATING SYSTEMS (3-0-3)(S).

In-depth exploration of the various components of an actual operating system. Includes modifying operating system code to observe behavior, adding new functionality, understanding how various parts work as well as other experiments. Special emphasis on soft and hard real-time operating systems. PREREQ: COMPSCI 453 or COMPSCI 552 or PERM/INST.

**COMPSCI 555 DISTRIBUTED SYSTEMS (3-0-3)(S).** Principles and paradigms of distributed systems. Communication, processes, naming, synchronization, consistency and replication, fault tolerance and security. In-depth coverage of Remote Procedure Call (RPC), Remote Method Invocation (RMI) and socket programming. Survey of major distributed systems. Several software projects. PREREQ: COMPSCI 453 or COMPSCI 552 or PERM/INST.

#### COMPSCI 557 ARTIFICIAL INTELLIGENCE (3-0-3)(F/S).

Course will include a survey of some of the following topics, plus a project: Principles of knowledge-based search techniques; automatic deduction; knowledge representation using predicate logic, semantic networks, connectionist networks, frames, rules; applications in

### College of Engineering Department of Computer Science



problem solving, expert systems, game playing, vision, natural language understanding, learning, robotics; LISP programming. PREREQ: COMPSCI 342 and COMPSCI 354 or PERM/INST.

#### **COMPSCI 561 INTRODUCTION TO THE THEORY OF**

**COMPUTATION (3-0-3) (F).** Grammars, automata, Turing machines, decidability and complexity, language hierarchies, normal forms, NP-completeness, and reducibilities. Applications will be drawn from various areas of computer science. PREREQ: COMPSCI 342 or PERM/INST.

**COMPSCI 562 COMPLEXITY THEORY (3-0-3) (S).** Abstract machines, relativizations, upper and lower bounds on complexity, recursive hierarchies and alternation, time-space interaction, parallel and randomized complexity classes, approximation algorithms. PREREQ: COMPSCI 461 or COMPSCI 561

COMPSCI 564 COMPUTER GRAPHICS I (3-0-3)(F). The mathematics and programming techniques for computer graphics

emphasizing raster graphics, rasterization algorithms, and scanline rendering. Two- and three-dimensional transformations, homogeneous coordinates, projections; clipping, hidden-surface removal. PREREQ: COMPSCI 342 and MATH 301; MATH 275 recommended.

#### COMPSCI 565 COMPUTER GRAPHICS II (3-0-3)(S). A

continuation of COMPSCI 564. Polygonal representation of 3D objects, lighting models, shading and shadows, texture mapping, antialiasing, interactive graphics. Nonrecursive and recursive ray tracing. PREREQ: COMPSCI 464 or COMPSCI 564.

**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, MATH 171, and MATH 187.

**COMPSCI 568 CRYPTOLOGY II (4-0-4) (S).** Introduction to groups, fields, polynomial rings and Lucas numbers. The study of: the Elliptic Curve, LUC, and NTRU public key cryptosystems, authentication and digital signatures, anonymity protocols. Crosslisted with MATH 308 and COMPSCI 368; credit may be received for only one of these three courses. PREREQ: MATH 170, MATH 171, and MATH 187.

**COMPSCI 571 SOFTWARE ENGINEERING (3-0-3) (F).** A formal study of the software development process. Topics include: lifecycle models, requirements definition, specification, design, implementation, validation, verification, maintenance, and reuse. Students work in small teams on significant projects. PREREQ: COMPSCI 342 or PERM/INST.

**COMPSCI 572 OBJECT-ORIENTED DESIGN PATTERNS** (3-0-3) (S). Reviews object-oriented design principles, explains the goals and form of design patterns, and examines several well-known patterns. PREREO: COMPSCI 342 or PERM/INST.

#### COMPSCI 573 ADVANCED SOFTWARE ENGINEERING

(3-0-3) (S). A study of selected aspects of contemporary software development methodology. Topics are taken from recent research articles. These topics include: definition of user requirements, formal specification of solutions, design and implementation techniques, validation and testing, verification, maintenance, and reuse. PREREQ: COMPSCI 471 or PERM/INST.

**SELECTED TOPICS (Variable credit).** In depth study of current trends and advanced topics in targeted areas of computer science.

COMPSCI 580 PARALLEL COMPUTING COMPSCI 581 ALGORITHMS COMPSCI 583 COMPUTER SECURITY COMPSCI 584 NETWORKS COMPSCI 585 OBJECT-ORIENTED DESIGN COMPSCI 586 DATABASES COMPSCI 587 SOFTWARE ENGINEERING

COMPSCI 591 PROJECT (Variable credit).

COMPSCI 593 THESIS (Variable credit).

COMPSCI 600 ASSESSMENT [Comprehensive Examination] (1 Credit)(Pass/Fail).

# Department of Electrical and Computer Engineering

#### Chair: Thad B. Welch

Engineering Technology Building, Room 240A Telephone 208 426-2212 FAX 208 426-2470 e-mail: thadwelch@boisestate.edu

**Graduate Faculty:** Said Ahmed-Zaid, R. Jacob Baker, Elisa H. Barney Smith, Jim Browning, Kris Campbell, John Chiasson, Zhu Han, William Knowlton, Wan Kuang, Sin Ming Loo, Maria Mitkova, Nader Rafla, Cheryl B. Schrader, Scott Smith, Thad Welch

# **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 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.

### Graduate Teaching and Research Fellowships

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

# **Doctoral Program Committee**

The Doctoral Program Committee in ECE consists of the ECE Doctoral Program Coordinator, the program coordinators for the electrical engineering and computer engineering Master's programs, and the associate chair of the department. The duties of the Doctoral Program Committee include development of recommendations for admission of prospective graduate students, decision on transfer credits and required background courses, appointment of Supervisory Committees for graduate students, and administration of the comprehensive examination.

# **Supervisory Committee**

The Supervisory Committee is charged with general guidance of the doctoral student, including design and approval of the program of study, administration of the oral dissertation proposal, supervision of the dissertation research, and participation in dissertation defense. The Supervisory Committee consists of a principal advisor from the student's chosen area of major emphasis who acts as chair, one member from the student's chosen area of minor emphasis, and at least two additional members, all of whom must be members of the University regular or research faculty and must also be members of the Graduate Faculty. One or more additional members may be appointed when such appointments enhance the function of the Committee. In all cases, regular or research faculty members of the Department of Electrical and Computer Engineering must constitute a majority of the Supervisory Committee.

# **Application and Admission**

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:** Admission decisions are made each year in January. However, 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 240 or higher for the computer-based 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 10 **Core Sequence** ENGR 500 Research Methods ...... 1 At least 3 courses from the following ECE 510 Integrated Circuit Physical Design ......3 ECE 520 Advanced Device Design and Simulation ...3 **Major Area of Concentration** 15 9 **Emphasis (Minor) Area** Electives (with supervisory committee approval) 12

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Doctor of Philosophy in Electrical and Computer Enginee (continued)	ring
Comprehensive Examination	26
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	
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).

### 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: ECE 510 (circuits), 520 (devices), 530 (digital), 550 (communications), 560 (systems), and 580 (electromagnetics). The results of the comprehensive examination can lead to three possible outcomes: 1) pass, 2) pass after completion of background coursework with grades of A or B to resolve deficiencies (note that this coursework will not count towards the Ph.D. degree credits required for graduation), or 3) failure. If the student fails the comprehensive examination they may take it again the following year. Failure a second time will result in administrative withdrawal from the doctoral program.

### College of Engineering Department of Electrical and Computer Engineering

### **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 administratively withdrawn from the program.

### **Dissertation Requirements**

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

### **Final Oral Examination**

A public defense of the dissertation is scheduled after the Supervisory Committee has reviewed a draft that is considered to be nearly a final version. The date of the defense is determined jointly by the Supervisory Committee and the student and must be consistent with any guidelines provided by the Graduate College. A Defense Committee is formed that consists of the following voting members: an appointed chair, the chair and members of the Supervisory Committee, and an external examiner. The chair of the Defense Committee is appointed by the Dean of the Graduate College and must be a member of the Graduate Faculty, but must not be the chair or a member of the Supervisory Committee. The external examiner is a faculty member from another university who is a recognized expert in the field of the dissertation research and is appointed to the Defense Committee by the Dean of the Graduate College. Attendance at the defense by the external examiner is not required, but a written evaluation of the dissertation and a pass or fail vote must be submitted by the external examiner to the chair of the Defense Committee at least 3 weeks prior to the defense. The written evaluation provided by the external examiner is distributed to the other members of the Defense Committee at least 2 weeks before

the defense. The chair of the Defense Committee conducts the defense according to the procedure established by the Doctoral Program Committee. A student who fails the defense may be permitted to try again, but failure a second time will result in dismissal from the program.

### Final Approval of the Dissertation

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

### Graduate College Requirements

The general requirements of the BSU Graduate College also govern the Doctor of Philosophy in Electrical and Computer Engineering degree program.

# Master of Science/ Master of Engineering General Information

The Department of Electrical and Computer Engineering offers four distinct engineering graduate degree programs. Two programs leading to the Master of Science in Computer Engineering (M.S. COMPE) and Master of Science in Electrical Engineering (M.S. EE) are thesis-based programs designed to prepare students for research and development and further study at the doctoral level. The programs leading to the Master of Engineering in Computer Engineering (M.Engr. COMPE) and Master of Engineering in Electrical Engineering (M.Engr. EE) are non-thesis programs with a focus on professional development.

# **Application and Admission Requirements**

Admission Requirements An applicant must satisfy the minimum admission requirements of the Graduate College. In addition, the applicant must hold a baccalaureate degree in computer or electrical engineering from an ABET-accredited program or a baccalaureate degree in a closely related field, and must follow the application procedures specified below. Admission is competitive and the achievement of minimum requirements does not guarantee admission.

**Application Procedures** A prospective student may apply at any time and should follow the general graduate application procedure for degree-seeking students (see Applying as a Degree-Seeking Student in this catalog). The applicant must also arrange to have GRE General Test scores submitted by the Educational Testing Service (www.ets.org) directly to Boise State University (code 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:** Scott Smith Micron Engineering Center, Room 202L Telephone 208 426-5743 e-mail: sfsmith@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
<b>Thesis</b> ECE 593 Thesis (P/F)	6
TOTAL	30

# Master of Engineering in Computer Engineering

**Graduate Program Coordinator:** Scott Smith Micron Engineering Center, Room 202L Telephone 208 426-5743 e-mail: sfsmith@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	18-30
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.	
Other Graduate Courses	0-12
Graduate courses in computer engineering or a	
related field; all courses to be selected with student	
input and approved by the supervisory committee.	

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#### College of Engineering Department of Electrical and Computer Engineering

Master of Engineering in Computer Engineering (continued)	
Comprehensive Examination	1
ECE 600 Assessment (P/F)	
TOTAL	31

# Master of Science in Electrical Engineering

**Graduate Program Coordinator:** R. Jacob Baker Micron Engineering Center, Room 108 Telephone 208 426-5715 e-mail: jbaker@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	15-24
Engineering	
Graduate courses in electrical engineering; all	
courses to be selected with student input and	
approved by the supervisory committee.	
Other Graduate Courses	0-9
Graduate courses in electrical engineering or a	
related field; all courses to be selected with student	
input and approved by the supervisory committee.	
Thesis	6
ECE 593 Thesis (P/F)	
TOTAL	30

# Master of Engineering in Electrical Engineering

**Graduate Program Coordinator:** R. Jacob Baker Micron Engineering Center, Room 108 Telephone 208 426-5715 e-mail: jbaker@boisestate.edu

### **Degree Requirements**

Students must complete at least 31 graduate credits distributed as shown in the degree requirements table. A maximum of 3 credits of ECE 696 Directed Research may be applied to meet the degree requirements. The comprehensive examination cannot be attempted prior to the last semester of the program. If the comprehensive examination is failed on the first attempt, then the student will be permitted a second attempt. Failure on the second attempt will result in dismissal from the program.

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	18-30
approved by the supervisory committee.Other Graduate CoursesGraduate courses in electrical engineering or a	0-12
related field; all courses to be selected with student input and approved by the supervisory committee.	
<b>Comprehensive Examination</b> ECE 600 Assessment (P/F)	1
TOTAL	31

# **Course Offerings**

#### ECE-ELECTRICAL AND COMPUTER ENGINEERING

**ECE 500 ADVANCED EM THEORY (3-0-3) (F/S).** Advanced study of electromagnetic theory, its content, methods, and applications. Topics include boundary value problems, propagation in bounded structures, forces in quasi-static systems, scattering and diffraction. PREREQ: ECE 390 or equivalent.

#### ECE 510 INTEGRATED CIRCUIT PHYSICAL DESIGN

**(3-0-3) (F/S).** CMOS IC layout, modeling, parasitic capacitance extraction, SPICE simulation. Design of logic gates, counters, registers, memories, and photomasks. PREREQ: ECE 322.

ECE 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 IC DESIGN (3-0-3)(F/S). Design and characterization of RF-CMOS integrated circuits, including RF transceivers, oscillators, design approaches for handheld wireless systems, ultra-low-power circuit design techniques, on-wafer microwave measurement techniques. S parameter device evaluation methods, low-noise design and measurement, analysis of distortion in amplifiers, power amplifiers with application to wireless transmitter design, transmission lines and distributed circuit elements. PREREQ: ECE 410 or ECE 411.

#### ECE 518 MEMORY CIRCUIT DESIGN (3-0-3)(F/S)(Alternate

**years).** Transistor level design of memory circuits. Memory technologies including DRAM, Flash, MRAM, Glass-based, and SRAM will be discussed. The course will be a practical introduction to the design of memory circuits. PREREQ: ECE 410/510.

#### ECE 520 ADVANCED DEVICE DESIGN AND SIMULATION

**(3-0-3) (F/S).** MOSFET device physics, scaling rules, analytical short channel models, hot-electron effects/modeling, LDD design, gate oxide breakdown and reliability, TDDB, GIDL, channel mobility, electromigration, BSIM3 device modeling, 2-D TCAD device simulation. PREREQ: ECE 323.

#### ECE 520L ADVANCED DEVICE CHARACTERIZATION LAB

**(0-3-1) (F/S).** Advanced measurement and parameter extraction techniques for MOSFETs. High frequency CV, Quasistatic CV, Charge-Pumping measurements, PREREQ: ECE 323.

#### ECE 521 ADVANCED TOPICS IN SEMICONDUCTOR DEVICES

**(3-0-3) (F/S).** Study of advanced semiconductor devices, particularly photonic, microwave, power, and high temperature/radiation resistant devices, including physics and applications. TCAD simulation and modeling of these devices will be included. PREREQ: ECE 420/520.

#### ECE 522 MICROWAVE SEMICONDUCTOR DEVICES (3-0-3)

(F/S). Covers the various aspects of design, fabrication, and characterization of ultra-low-power, RF-CMOS devices. Short-channel CMOS device physics, Parasitic CMOS device elements, Advanced small-signal bulk and SOI RF-CMOS device models, Ultra-low-power device and circuit design techniques, On-wafer microwave measurement and calibration techniques, and S-parameter device evaluation methods. PREREQ: ECE 420/520.

ECE 530 DIGITAL HARDWARE DESIGN (3-0-3) (F/S). Advanced topics in digital system design emphasizing the specification and design of complex digital hardware systems. Applications include design of synchronous state machines, asynchronous digital systems, and simple digital control circuits using hardware descriptive languages for field programmable gate arrays and complex programmable logic. PREREQ: ECE 230 and either COMPSCI 117 or COMPSCI 125.

**ECE 532 COMPUTER ARCHITECTURE (3-0-3) (F/S).** Structure of computer systems using processors, memories, input/output (I/O) devices as building blocks. Computer system instruction set design and implementation, including memory hierarchies, microprogramming, pipelining, and multiprocessors. Issues and tradeoffs and multi-variable optimization algorithms using linear and nonlinear programming methods to design problems in structures, machine components, and energy systems. PREREQ: ECE 332 and COMPSCI 117 or COMPSCI 125.

#### ECE 533 EMBEDDED AND PORTABLE COMPUTING SYSTEMS

**(3-0-3) (F/S).** Comparison of commercially available microcontrollers and their use in embedded communications and control applications. Power consumption, software development, interprocessor communication, and interfacing with sensors, actuators, and input/output devices. Use of microcontroller cores implemented in programmable logic devices as an alternative to hardwired microcontrollers. An embedded system project is designed and built. PREREQ: ECE 332.

ECE 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 332.

#### ECE 535 SYSTEMS FOR MULTIMEDIA PROCESSING (3-0-3)

(**F/S**). Study of the general information theory and its applications in speech, imaging, and video processing. Focuses on the underlying structures and architectures for efficient algorithm implementation of video and speech processing systems. Current and future trends in processing, storing, coding, decoding, restoring, and transmission of multimedia information. PREREQ: ECE 457/557 and ECE 430/530, or PERM/INST.

#### ECE 536 DIGITAL SYSTEMS RAPID PROTOTYPING

**(3-0-3) (F/S).** Use of hardware description languages and hardware programming languages as a practical means to simulate/implement hybrid sequential and combinational systems. Rapid prototyping techniques will be utilized during the implementation. This course focuses upon the actual design and implementation of sizeable digital design problems using the most up-to-date industry Computer Aided Design tools and Field-programmable Gate Arrays. PREREQ: ECE 430/530.

ECE 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 AND MEMS PROCESSING (3-0-3) (F). Fundamentals of integrated circuit and micro electromechanical systems (MEMS) fabrication technology; semiconductor substrates; theory of unit processes such as diffusion, oxidation, ion implantation, rapid thermal processing, photolithography, wet etching and cleaning, dry etching, thin-film deposition; chemical mechanical polishing; process integration; metrology; statistical process control; TCAD. COREQ: ECE 540L. PREREQ: ECE 323 or PERM/INST.

ECE 540L INTRO TO INTEGRATED CIRCUIT AND MEMS PROCESSING LAB (0-3-1) (F). Semiconductor cleanroom practices; heavy lab safety; students will fabricate and test simple structures in lab; application of TCAD to practical problems. COREQ: ECE 540.

#### ECE 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:

#### College of Engineering Department of Electrical and Computer Engineering

bulk micromachining, surface micromachining, and LIGA; MEMS design and modeling; case studies in various MEMS systems. PREREQ: ECE 440/540, or PERM/INST.

ECE 550 STOCHASTIC SIGNALS AND SYSTEMS (3-0-3) (S). Deterministic signal representations and analysis, introduction to random processes and spectral analysis, correlation function and power spectral density of stationary processes, noise mechanisms, the Gaussian and Poisson processes. Markov processes, the analysis of linear and nonlinear systems with random inputs, stochastic signal representations, orthogonal expansions, the Karhunen-Loeve series, channel characterization, introduction to signal detection, linear mean-square filtering, the orthogonality principle, optimum Wiener and Kalmen filtering, modulation theory, and system analysis. PREREQ: ECE 350 and MATH 360 or MATH 361 or equivalent.

ECE 551 COMMUNICATION SYSTEMS (3-0-3) (F). Signals, noise, propagation and protocol in analog and digital communication systems. Bandwidth, Fourier transforms, signal to noise ratio and receiver noise figures. Introduction to modern wireless communication systems such as cellular, wireless data and satellite data systems. PREREQ: ECE 350, and MATH 360 or MATH 361, or PERM/INST.

ECE 552 WIRELESS COMMUNICATIONS (3-0-3) (F/S). Modern cellular communication systems, including propagation, handoff, noise, and interference studies. CDMA and other spread-spectrum systems. PREREQ: ECE 451 or ECE 551.

ECE 554 DIGITAL SIGNAL PROCESSING (3-0-3) (F/S). Modern digital signal processing in engineering systems. Review of continuoustime 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, 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 either ECE or ME credit, but not both. PREREQ: ECE 360 or ME 360.

ECE 563 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 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 225 and ECE 390.

ECE 571 ELECTRIC MOTOR DRIVES (3-0-3) (F) (Even years). Induction machines and drives, direct-current and permanent-magnet machines and drives, synchronous machines and drives. Control of single-phase and special machines. PREREQ: ECE 360 or ME 360 and ECE 470/570, or PERM/INST.

**ECE 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 225.

ECE 573 POWER SYSTEM ANALYSIS I (3-0-3) (F). Three-phase AC systems, generators, transformers, transmission lines, one-line diagrams, per-unit system, network calculations, load flow studies, power system operation. PREREQ: ECE 225, ECE 390.

**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 614 ADVANCED ANALOG IC DESIGN (3-0-3) (F/S). Advanced analog design considerations including: noise, commonmode 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 323 and PHYS 310.

#### ECE 631 DIGITAL SYSTEM TESTING AND TESTABLE DESIGN

**(3-0-3) (F/S).** In-depth theory and practice of fault analysis, test set generation, and design for testability of digital systems. Topics include system modeling; fault sources and types; fault simulation methods; automatic test pattern generation (ATPG) for 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 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 550.

#### 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 POWER SYSTEM DYNAMICS (3-0-3) (F/S).** Dynamic modeling of major power system components and their controls for short-term simulation and stability evaluation of multimachine power systems. Subsynchronous resonance, transient and steady-state stability analysis. Stabilization of electromechanical oscillations via excitation control. Methods of coherency identification and dynamic equivalencing. Voltage stability and control. PREREQ: ECE 470/570 and ECE 473/573.

ECE 681 MMIC DESIGN (3-0-3) (F/S). Technology, design and analysis of monolithic microwave integrated circuits; passive and active microwave circuit elements; high frequency substrates, individual design projects utilize modern computer-aided design software. PREREQ: ECE 500.

**ECE 682 QUANTUM ELECTRONICS (3-0-3) (F/S).** Quantized electromagnetic field, interaction of radiation and atomic systems, laser oscillation, semiconductor lasers, parametric amplification, phase conjugate optics. PREREQ: PHYS 412/512.

# Department of Instructional & Performance Technology

#### **Chair: Donald Stepich**

Engineering and Technology Building, Room 327 Telephone 208 426-1312 FAX 208 426-1970 http://ipt.boisestate.edu e-mail: lburnett@boisestate.edu

**Graduate Faculty:** Yonnie Chyung, Linda Huglin, Anthony Marker, Donald Stepich, Steven Villachica, Donald Winiecki

Adjunct Graduate Faculty: David Cox, Gary Dickelman, Diane Gayeski, Robert Horton, Terrell Perry, Carol Porter, David Ripley, Penelope Schweibert, Mary Norris Thomas

### **Graduate Degrees Offered**

- Master of Science in Instructional and Performance Technology
- Graduate Certificate in Human Performance Technology

# Master of Science in Instructional & Performance Technology

**Graduate Program Coordinator:** Donald Stepich Engineering and Technology Building, Room 327 Telephone 208 426-1312 FAX 208 426-1970 http://ipt.boisestate.edu e-mail: lburnett@boisestate.edu

# **General Information**

The Master of Science degree in Instructional & Performance Technology (IPT) is intended to prepare students for careers in the areas of instructional design, performance technology, training and development, training management, workplace e-learning, human resources, organizational development, and performance improvement consulting. The IPT program equips students with skills needed 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.

The M.S. program emphasizes scholarly understanding of research and theory as they apply to instructional technology and performance technology. Students are exposed to a broad range of practical skills and knowledge in instructional systems design, e-learning, needs assessment, performance support, consulting, and program evaluation. With respect to training and instruction, the emphasis is on how to *design* effective programs that can be "packaged" for implementation by other individuals.

Human performance improvement in organizations requires more than training alone. In this program, students explore the many factors that affect job performance, such as knowledge and skills, job expectations, task design, human factors, ergonomic and environmental factors, incentive systems, feedback systems, tools, job aids, and resources. In the IPT program, students learn how to think strategically and design interventions that will address all of the needed factors that will help achieve the desired results.

### **On-Campus and Online Course Options**

In addition to traditional on-campus courses, the IPT Department offers an online option in which students can earn an M.S. degree entirely online. Both on-campus and online options are fully accredited by the Northwest Commission on Colleges and Universities (NWCCU).

Online classes 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.

Access to online courses makes it possible for students anywhere in the world who have Internet access to obtain a degree. These courses have been especially useful to 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, the fees are higher for the online courses than for on-campus courses, special equipment is required, 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 military personnel. Schedules for online courses are available in an official release from Extended Studies and on the IPT website at http://ipt.boisestate.edu.

# Graduate Assistantships

A limited number of graduate assistantships is available for full-time, on-campus students. Graduate assistantships include a stipend and a waiver of fees and require approximately 20 hours service per week to the University. Appointments are made for a period of one academic year. Graduate assistants must be fully admitted into the IPT degree program, enroll for a minimum of nine credit hours of on-campus courses each semester, and meet any other requirements as set forth by the Graduate College. Applications are available from the IPT office, the Graduate College office, or IPT website. The application deadline is April 1 for the next academic year.

# Admission Requirements

Requirements for admission to the M.S. degree program 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.

### **Application Procedures**

Applicants must follow the general application procedures of the Graduate College. In addition, 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 IPT degree will help them 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.

### **Degree Requirements**

Master of Science in Instructional & Performance Technology	
Course Number and Title	Credits
Core Requirements:	24
IPT 529 Needs Assessment 4	
IPT 530 Evaluation Methodology4	
IPT 535 Principles of Adult Learning	
IPT 536 Foundations of Instructional and	
Performance Technology	
IPT 537 Instructional Design 4	
IPT 560 Human Performance Technology4	

— continued —

Master of Science in Instructional & Performance Techno (continued)	logy
Thesis Option:	12
Electives	
IPT 593 Thesis (Oral defense required)6	
(At least one semester of residence on	
campus required.)	
OR	
Project Option:	
Electives	
IPT 591 Project (Oral defense required)6	
(At least one semester of residence on	
campus required.)	
OR	
Portfolio Option:	
Electives (Oral defense required)	
OR	
Nonthesis Option:	
Electives (Comprehensive examination	
required)12	
TOTAL	36
Academic Scholarship Requirement Students are expected to meet the Graduate College academic requirements. In addition, grades below B in required courses ca used to meet the requirements of the M.S. degree in IPT.	innot be
Residency Requirement for Project or Thesis O	otion
In order to complete the project or thesis option, students are rec be in residence on campus for at least one semester during whic are enrolled in IPT 591 Project or IPT 593 Thesis. (Petitions for er should be made to the IPT Program Committee.) Consequently, in the online IPT program are invited to come to campus to parti- the project/thesis option, or they may pursue the portfolio or nor option with no obligation to be on campus at any time.	quired to h they ceptions students cipate in

# Graduate Certificate in Human Performance Technology

**Graduate Program Coordinator:** Donald Stepich Engineering & Technology Building, Room 327 Telephone 208 426-1312 http://ipt.boisestate.edu lburnett@boisestate.edu

# **General Information**

The Graduate Certificate in Human Performance Technology program is designed for individuals who wish to develop skills in diagnosing and solving performance problems in the workplace. The program emphasizes the practical application of process models, tools, and techniques to workplace performance improvement situations. Students admitted to the certificate program are required to be familiar with all policies of the Graduate College that govern graduate certificate programs. Similar to the M.S. degree program, the Graduate Certificate in Human Performance Technology is available via both on-campus and online course options.

### **Admission Requirements**

Requirements for admission to the HPT certificate program 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 certificate program.

### **Application Procedures**

Applicants must follow the general application procedures of the Graduate College. In addition, 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 certificate will help them 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.

### Special Relationships with Other Programs

A student may be simultaneously enrolled in the Master of Science in Instructional and Performance Technology program and the Graduate Certificate in Human Performance Technology program subject to the approval of the IPT Graduate Program Coordinator and the Dean of the Graduate College. Please note that admission to the certificate program does not guarantee admission to the degree program and vice versa.

### **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       4         Technology       4         IPT 560 Human Performance Technology       4	16
TOTAL	16

# **Course Offerings**

### IPT-INSTRUCTIONAL & PERFORMANCE TECHNOLOGY

IPT 510 COLLABORATIVE ONLINE COMMUNICATIONS AND LEARNING (1-0-1) (F/S). Students will learn technologies that help develop collaborative online learning communities and learn technical skills that help them become successful online learners. Students will examine synchronous and asynchronous online communication tools to facilitate small and large group communications, and conduct research using online library systems on the web.

#### IPT 523 AUTHORING SKILLS FOR INSTRUCTIONAL MULTIMEDIA (3-0-3) (SU) (Odd years). Students learn how to

**MULTIMEDIA (3-0-3) (SU) (Odd years).** Students fearn how to use basic software tools that are used by professionals in authoring computer-based instruction. This course focuses on the mechanics of multimedia authoring, demonstrating how advanced authoring can be used to enhance presentation programs by adding CBT elements, including testing, feedback, and interactive exercises. Topics covered will include an overview of programming code and multimedia integration.

#### 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 550 DELIVERY TECHNOLOGY IN INSTRUCTIONAL AND PERFORMANCE TECHNOLOGY (3-0-3) (SU) (Even years).

Students investigate the applications of various types of media and technology to instruction and performance solutions. In the culminating class project, students analyze and evaluate authentic instructional or performance solutions by critically applying analytic and design principles, theories and models.

**IPT 551 DESIGNING COMPUTER-BASED TRAINING (3-0-3) (SU) (Even years).** Students learn to apply the principles of instructional design, instructional message design and human-computer interface design within the context of Computer-Based Training (CBT). PREREQ: IPT 537 or PERM/INST.

#### **IPT 560 HUMAN PERFORMANCE TECHNOLOGY (4-0-4)**

**(F,S).** Students examine the foundations, process models, solutions, professional practice issues, and future trends of the field of human performance technology (HPT), which aims to improve performance in the work place or in learning situations. In a hands-on project, students practice applying HPT to design effective performance solutions. PREREQ: IPT 530 and IPT 536, COREQ IPT 529.

#### IPT 561 HUMAN FACTORS ENGINEERING (3-0-3)(SU)(Even

**years).** This course provides a basic introduction to Human Factors Engineering to design of performance environments (including human-machine interfaces). Students learn principles of work and learning system design that help to improve human performance.

#### IPT 563 JOB AIDS AND ELECTRONIC PERFORMANCE

**SUPPORT (3-0-3) (S,SU) (Odd years).** This course will provide students with a review of research and practical methods related to prescribing, designing, and creating job aids and performance support in ways that improve workplace performance. Students in this project-based course will analyze human performance gaps, specify performance requirements, prototype performance support solutions, and create performance support solutions. PREREQ: IPT 536 or PERM/INST.

#### IPT 564 MOTIVATION IN INSTRUCTIONAL AND

**PERFORMANCE TECHNOLOGY (3-0-3) (F).** An in-depth study of motivation as one of the fundamental variables underlying human learning, behavior, and performance improvement. Students examine theories of motivation and apply the principles derived therefrom to produce strategies that motivate learning and improved performance.

#### IPT 571 MANAGEMENT CONCERNS FOR PERFORMANCE TECHNOLOGISTS (3.0.3) (On domand) This course provides

**TECHNOLOGISTS (3-0-3)(On demand).** This course provides students with an exposure to current topics in management which are related to understanding performance systems.

# IPT 574 PERFORMANCE CONSULTING (3-0-3) (S) (Even years) (SU) (Odd years). Examine the major theoretical foundations,

principles and practices of performance consulting. PREREQ: IPT 536.

**IPT 575 PROJECT MANAGEMENT (3-0-3) (S) (Odd years) (SU) (Even years).** Examine principles related to project management, leading a project team, building client partnerships and targeting projects to meet an organizational need.

#### **IPT 583 SELECTED TOPICS IN INSTRUCTIONAL**

**TECHNOLOGY (3-0-3) (On demand).** Students explore issues and topics of current interest. Content will be revised continually to reflect current developments in the field of instructional and performance technology. PREREQ: IPT 536 or PERM/INST.

#### IPT 584 SELECTED TOPICS: APPLICATIONS OF WEB

**TECHNOLOGIES (Variable credits) (F).** Basic and intermediate design of instructional and performance interventions using selected web technologies.

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

# Department of Materials Science and Engineering

#### **Chair: Darryl Butt**

Engineering and Technology Building, Room 240C Telephone 208 426-1054 FAX 208 426-2470 e-mail: darrylbutt@boisestate.edu

#### Engineering Graduate Faculty: Darryl Butt,

Kris Campbell, Sean M. Donovan, Megan Frary, Janet Callahan, William Knowlton, Amy Moll, Peter Mullner, Rick Ubic

**Physics Graduate Faculty:** Charles Hanna, Byung-II Kim, Alex Punnoose, Dmitri Tenne

**Chemistry and Biochemistry Graduate Faculty:** Jeff Peloquin, Dale Russell, Martin Schimpf, Don Warner

**Biological Sciences Graduate Faculty:** Julia Thom Oxford

# **Graduate Degrees Offered**

- Master of Science in Materials Science and Engineering
- Master of Engineering in Materials Science and Engineering

# **General Information**

The Department of Materials Science and Engineering offers two distinct graduate degree programs. The program leading to the Master of Science in Materials Science and Engineering (M.S. MSE) is a thesis-based program designed to prepare students for research and development and further study at the doctoral level. The program leading to the Master of Engineering in Materials Science and Engineering (M.Engr. MSE) is a non-thesis program with a focus on professional development. 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 Technology Building, Room 201 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 Technology Building, Room 232 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	15-24
Graduate courses in mechanical engineering;	
all courses to be selected with student input and	
approved by the supervisory committee.	
Other Graduate Courses	0-9
Graduate courses in mechanical engineering or a	
related field; all courses to be selected with student	
input and approved by the supervisory committee.	
Thesis	6
ME 593 Thesis (P/F)	
TOTAL	30

# Master of Engineering in Mechanical Engineering

### Graduate Program Coordinator: Steve Tennyson

Engineering Technology Building, Room 232 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
<b>Graduate ME Courses</b> 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
<b>Comprehensive Examination</b> ME 600 Assessment (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**

# 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 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 530 FLUID DYNAMICS (3-0-3) (F/S).** Advanced fluid mechanics theory and applications in potential flow, boundary layer theory, viscous flow, turbulence, vorticity dynamics and circulation, compressible flow and gas dynamics, open channel flow, turbomachinery, stratified flow, laws, and introduction to computational fluid dynamics. PREREQ: ENGR 330, MATH 333, and either MATH 275 or MATH 272.

**ME 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 333 and either MATH 275 or MATH 272.

**ME 536 COMPUTATIONAL FLUID DYNAMICS (3-0-3)(F/S).** Theory and numerical modeling in fluid dynamics. Finite difference, finite volume, and finite element techniques will be treated. The course will include projects and research applications in engineering and environmental flows. PREREQ: ENGR 330, structured programming, or PERM/INST.

**ME 538 CONVECTIVE HEAT TRANSFER (3-0-3) (F/S).** Treatment of energy and linear momentum conservation equations; laminar and turbulent forced convective HT in internal and external flow fields; free convection. PREREQ: ME 320, ME 321.

**ME 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: Math 275 and ENGR 350.

**ME 556 INTRODUCTION TO SOLID BIOMECHANICS** 

**(3-0-3) (S).** Students will learn to apply the principles of engineering mechanics to the human musculoskeletal system. Topics covered include functional anatomy, human motion analysis, mechanical properties of biological tissues, and modeling of the human body. PREREQ: ENGR 220 or PERM/INST.

**ME 560 COMPUTER AIDED DESIGN (3-0-3) (F/S).** Computer programs used to develop 3-D CAD database for design, analysis, simulation, and manufacturing. Machinery design to meet functional, performance, reliability and manufacturing requirements. Design projects reinforce concepts and methodologies. For students desiring higher level CAD sills prior to taking ME 480. PREREQ: ME 320 and ME 382.

**ME 561 (ECE 561) CONTROL SYSTEMS (3-0-3)(S).** Time and frequency domain analysis and design of feedback systems using classical and state space methods. Observability, controllability, pole placement, observers, and discrete time. Multivariable and optimal methods are introduced. May be taken for either 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 272 or MATH 275, PHYS 211, 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 and ME 382.

**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, and ME 280.

**ME 586 ADVANCED ENGINEERING DESIGN (3-0-3) (F/S).** Integration of systematic methods used to define, develop, and produce competitive products. Topics include: Quality Function Deployment; Functional Decomposition; Design Specification; Failure Modes and Effects Analysis; Design Analysis and Evaluation; Optimal and Robust Design; Design for Manufacture, Assembly, and Service. PREREQ: ME 480 or PERM/INST.

**ME 588 DESIGN FOR MANUFACTURE AND ASSEMBLY (3-0-3)** (**F/S**). Development and application of design methods for costeffective 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.

# **College of Health Sciences**

**Dean: James Girvan** Telephone 208 426-4116

Associate Dean: Pamela Springer Telephone 208 426-4143 Associate Dean: Sarah Toevs Telephone 208 426- 2217 Health Sciences Riverside Building, Room 207 FAX 208 426-3469 http://hs.boisestate.edu

# **Graduate Degrees Offered**

- Master of Health Science, Environmental Health
- Master of Health Science, General Research
- Master of Health Science, Health Policy
- Master of Health Science, Health Promotion
- Master of Health Science, Health Services Leadership
- Master of Nursing
- Master of Science in Nursing
- Graduate Certificate in Addiction Studies
   (See Interdisciplinary Programs)
- Graduate Certificate in Gerontological Studies
   (See Interdisciplinary Programs)
- Graduate Certificate in Health Services Leadership

# Master of Health Science

**Graduate Program Director:** Theodore McDonald Health Sciences Riverside Building, Room 104 Telephone 208 426-2217 FAX 208 426-2199 http://hs.boisestate.edu/MHS e-mail: tmcdonal@boisestate.edu

**Graduate Faculty:** Jeffrey Anderson, Edward Baker, Patricia Elison-Bowers, James Girvan, Elizabeth Hannah, Elaine Long, Theodore McDonald, Uwe Reischl, Scott Staley, Dale Stephenson, Sarah Toevs

Adjunct Graduate Faculty: Pat Aksamit, Marnie Bason, Judith Brawer, Kara Cadwallader, Hartzell Cobbs, Mark Emerson, Sandra Evans, Colleen Fillmore, Andrea Fletcher, Ginger Floerchinger-Franks, Nancy Fricke, Susan Gelletly, Georgia Girvan, Christine Hahn, Margaret Henbest, Christopher Johnson, Bonnie Lind, Galen Louis, John Moeller, Linda Powell, SeAnne Safaii, Norman Semanko, Ronald Sheffield, Terry Spear, Beth Stamm. Robert Sterling, Leslie Ann Tengelsen, Sharry Veres, Stephen West

**Emeritus Graduate Faculty:** Rudy Andersen, Conrad Colby, Lee Stokes

### **General Information**

The Master of Health Science (MHS) program is designed primarily for the working health professional employed in state and local health agencies, health care institutions, and in private practice. The program, with its areas of emphasis in health policy, environmental health, general health research, health promotion and health services leadership prepares health professionals to be more effective as advocates, administrators and critics of our health delivery systems. It is designed to serve the working professional without interrupting their employment, yet meet the necessary standards for graduate level work. Students can complete a MHS degree and/or a Graduate Certificate in Addiction Studies, Health Services Leadership, or Gerontological Studies.

Although the MHS program is administered by the College of Health Sciences, graduate faculty are drawn from several programs across campus, including Public Affairs, Economics, Kinesiology, Sociology, Psychology, and Biology. The Master of Public Administration (MPA) program, with lead responsibility in the area of public policy, is a key partner in the health policy area of concentration.

### **Application and Admission Procedures**

An applicant must follow the general application procedures for degree-seeking students (see the Graduate Admission Regulations section of this catalog) and must (1) meet with the program director to discuss the admission process, the applicant's career interests, and reasons for seeking admission to the program, (2) arrange to have three letters of recommendation submitted directly by the references to the graduate program director (3) submit a formal statement of at least 250 words explaining the applicant's educational and career objectives and how those objectives correspond with the MHS program and (4) complete a proctored writing examination (contact program director to arrange for such an examination to be completed). Applicants whose native language is not English must submit TOEFL scores. Once the file for an applicant is complete, it will be evaluated by the MHS Admissions Committee and an admissions recommendation (regular, provisional, or denial) will be forwarded to the dean of the Graduate College who will make the final decision and notify the applicant.

**Health Sciences** 

### **Conditions for Admission**

The conditions for admission are the minimum admission requirements for the Graduate College (see the Graduate Admission Regulations section of this catalog). Preference will be given to applicants with education and work experience in a health-related field. Applicants selecting the health policy emphasis area must be approved by both the MHS and MPA Program Directors. These conditions are necessary for admission to the program but do not guarantee admission.

### Advisor and Supervisory Committee

The MHS director will serve as the academic advisor for each student admitted to the program and is responsible for maintaining oversight for each student's academic progress. Each student who chooses to complete a thesis or project will be responsible for forming a supervisory committee consisting of a major advisor who serves as chair and at least two additional members. The role of the supervisory committee is to guide the student in all aspects of his or her thesis or project research. For thesis and project students, the major advisor also replaces the program director as academic advisor.

### **Graduate Assistantships**

Graduate assistantships covering tuition and fee waivers may be available through research grants and contracts. Contact the MHS director for information on assistantships which may be available from these sources.

# **Degree Requirements**

A minimum of 36 credits is required for graduation (excluding internship credits). The MHS student who attends full time will normally be enrolled for a two-year sequence including summers. Typically, however, students maintain their current employment positions and attend the program part time, thereby extending the length of time required to obtain the degree.

The curriculum (36-39 credits) is comprised of required core courses of 18 credits with an additional 18-21 credits of required area of concentration courses, and a thesis, project, or elective courses. All courses must be approved for application to the degree requirements by the supervisory committee and/or the program director in consultation with the major advisor. Elective courses may be chosen from any approved graduate courses at Boise State University and selected courses from Idaho State University's Master of Public Health program. An individual program may include no more than 18 credits representing dual-listed courses and G-courses.

Master of Health Science,	Graduate Core
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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/KINES 552 Applied Statistical	
Methods	3
*MHLTHSCI 555 Program Evaluation in the Health	
Sciences	3
**MHLTHSCI 579 Applications in Biostatistics and	
Epidemiology in Public Health	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	9
Environment	9-12
and 6 credits of thesis or project or 12 credits of additional electives.	5-12
TOTAL	36-39

NOTE: All applicants for the environmental health emphasis must have met the science requirements for a bachelor's degree in environmental health. Persons who have no experience in environmental health will also be required to take MHLTHSCI 590 Practicum.

Master of Health Science, General Research	
Course Number and Title	Credits
MHS Graduate Core	18
SOC 500 Advanced Social Statistics	12
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 Policy	
Course Number and Title	Credits
MHS Graduate Core	18
ECON 440G Health Economics	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 Health Promotion	12
SOC 502 Qualitative Social Research Methods	
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	12
Management 1	
DISPUT 502 Negotiation Theory and Practice 1	
DISPUT 503 Conflict Intervention Methods1	
ECON 440G Health Economics	
MHLTHSCI 522 Management for Health	
Professionals3	
MHLTHSCI 525 Leadership for Health	
Professionals3	
In addition, students need 6 credits of thesis/project or	6-9
9 credits of elective course work.	
TOTAL	36-39

#### **Thesis/Project Options**

The thesis or project provides Health Science graduate students an opportunity to consolidate the knowledge and skills gained during their graduate studies and to carry out an independent scholarly inquiry of a health science topic. Total credits for thesis or project vary from 4 to 6 and are determined by requirements of the emphasis area. No student may enroll for thesis or project credits until successfully completing MHLTHSCI 505 Health Science Research Methods, MHLTHSCI 555 Program Evaluation in the Health Sciences, and being advanced to candidacy following completion of at least 18 credits of selected course work.

# Graduate Certificate in Addiction Studies

(See Section on Interdisciplinary Programs)

# Graduate Certificate in Gerontological Studies

(See Section on Interdisciplinary Programs)

# Graduate Certificate in Health Services Leadership

**Graduate Program Director:** Theodore McDonald Health Sciences Riverside Building, Room 104 Telephone 208 426-2217 FAX 208 426-2199 http://hs.boisestate.edu/MHS e-mail: tmcdonal@boisestate.edu

The postgraduate Certificate in Health Services Leadership is designed for health professionals employed in state and local health agencies, health care institutions and in private practice. The goal of the certificate program is to prepare students for a variety of leadership and management positions in health related organizations.

# **Application and Admission Requirements**

Students interested in the Graduate Certificate in Health Services Leadership must first submit a graduate application to the Graduate Admissions Office. If approved, the applicant receives a certificate of admission to enroll in courses at Boise State. This certificate is a **prerequisite** to admission into the Graduate Certificate program, but does not by itself guarantee admission into the certificate program. (The student is advised to consult the General Admission Policies section of this catalog for more detail on admission to the Graduate College.)

Applicants admitted to the Graduate College who wish to apply to the Graduate Certificate in Health Services Leadership program must meet the following requirements prior to enrollment in certificate courses:

- 1. Possess a baccalaureate degree in a health-related field from an accredited institution.
- 2. Demonstrate satisfactory academic competency 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.
- 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.

Graduate Certificate in Health Services Leadership	
Course Number and Title	Credits
DISPUT 501 Human Factors in Conflict Management DISPUT 502 Negotiation Theory and Practice DISPUT 503 Conflict Intervention Methods	1 1 1
MHLTHSCI 522 Management for Health Professionals MHLTHSCI 525 Leadership for Health Professionals MHLTHSCI 529 Marketing for Health Professionals	3 3 3
A minimum of three credits from one of the following: ECON 440G Health Economics	3-4
TOTAL	15-16

### **Course Offerings**

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

#### BIOL-BIOLOGY

#### **BIOL 415G 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 501 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 111 or equivalent, or PERM/INST.

#### DISPUT-DISPUTE RESOLUTION

**DISPUT 500 BASIC MEDIATION SKILLS (3-0-3) (F/S).** Students learn the theoretical fundamentals of negotiation and mediation, types of mediation, mediation models, mediation case work skills, building the mediation plan, interpersonal skills for mediation, and various resolution techniques. Students will mediate several actual or simulated practice cases. Cannot be taken if credit has already been received in DISPUT 400.

#### DISPUT 501 HUMAN FACTORS IN CONFLICT MANAGEMENT

(1-0-1)(F). This course presents communication theories to assist managers understanding, analyzing, and managing conflict. The course focuses on the causes of conflict and includes the influence of gender and culture. The course is pragmatic as well as theoretical.

#### DISPUT 502 NEGOTIATON 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 546 MEDIATION COMPETENCY BOARD (0-0-1)

**(F/S).** Competency-based testing is required by several mediation professional organizations. Students conduct case work and mediate a case from within their emphasis area before a panel of expert mediators. Students discuss issues of mediation within their specialty area. (Pass/Fail) PREREQ: PERM/PROGRAM DIRECTOR.

#### ECON-ECONOMICS

ECON 440G HEALTH ECONOMICS (3-0-3) (S). Examines the economics and ethics of health and the health care delivery system. Comparisons will be made to the systems in other countries. The role of information and incentives in the system will be considered. PREREQ: ECON 205, Admission to MHS program, or PERM/PROG DIR.

#### HLTHST-HEALTH STUDIES

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.

#### IPT—INSTRUCTIONAL & PERFORMANCE TECHNOLOGY IPT 532 ETHNOGRAPHIC RESEARCH IN ORGANIZATIONS

(3-0-3) (F). Ethnography is an approach to learning about the social and cultural life of communities, organizations, institutions and other settings that discovers how the activities of people in those settings contribute to the creation of society and culture. Students receive a foundation in philosophical perspectives and methods supporting ethnographic research, learn when to conduct ethnographic research, and explore strategies for presenting and critiquing ethnographic research. They will also be provided with an opportunity to implement ethnographic research in organizational settings. PREREQ: IPT 536.

#### IPT 536 FOUNDATIONS OF INSTRUCTIONAL AND PERFORMANCE TECHNOLOGY (4-0-4)(F/S). Students study

historical foundations, prominent people, and events that contributed to the development of the fields of instructional technology and performance technology. They apply relevant theories and models to real or realistic organizational situations in industry, government, military, and non-profit settings.

#### IPT 540 APPLICATIONS OF LEARNING STYLES IN INSTRUCTIONAL AND PERFORMANCE TECHNOLOGY

**(3-0-3) (F).** The behavioral characteristics exhibited by different learning/cognitive styles, modalities, personality types, multiple intelligences, and emotional intelligences will be explored. Related preferences for different learning environments, media, instructional and testing methods will be examined, as well as the utility of these constructs for addressing performance problems in the workplace.

#### MBA-MASTER OF BUSINESS ADMINISTRATION MBA 522 ACCOUNTING AND FINANCIAL ANALYSIS

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

MBA 527 CREATION AND DISTRIBUTION OF GOODS AND SERVICES (3-0-3) (S). An introduction to the creation and distribution of goods and services. Course integrates both marketing and operations management concepts and will discuss the activities

and operations management concepts and will discuss the activitie associated with product pricing, product promotion, and the manufacturing and delivery of goods and services.

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

#### **MBA 534 INFORMATION TECHNOLOGY FOR MANAGERS**

**(3-0-3) (S).** Examines management's role in designing, implementing, and managing information systems, and the role of information and information technology for achieving a competitive advantage. PREREQ/COREQ: MBA 531.

#### MBA 535 LEGAL ISSUES IN BUSINESS RELATIONSHIPS

**(3-0-3) (S).** Exposes future managers to the major legal issues involved in intellectual property, private and public equity financing, cyber

law, and product liability. Emphasis will be on what managers should know in order to make decisions that will not trigger legal problems. PREREQ/COREQ: MBA 531.

#### MBA 537 MANAGING PEOPLE IN ORGANIZATIONS

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

**MBA 538 ORGANIZATIONAL ISSUES (2-0-2)(S).** Application of behavioral sciences principles and skills in an organizational setting. Emphasis is on an interactionist perspective (individual, group, and organizational dynamics), towards understanding behavior in organizations. Topics include team building, motivation, leadership, problem solving, negotiation, and self-management. The course is geared towards managers and the application of concepts to experience. PREREQ/COREQ: MBA 531.

#### MHLTHSCI—MASTER OF HEALTH SCIENCE MHLTHSCI 501 EPIDEMIOLOGY FOR HEALTH PROFESSIONALS (2.0.2) (F/6/SU), Study of the dict

**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 512 (NURS 512) EDUCATIONAL LEADERSHIP (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 in presentational leadership for advanced nursing. May be taken for MHLTHSCI or NURS credit, but not both. PREREQ: Admission to Graduate Program in Master of Health Science or Nursing.

MHLTHSCI 515 OCCUPATIONAL SAFETY AND HEALTH (2-3-3) (F/S). Recognition, evaluation, and control of environmental health hazards or stresses (chemical, physical, biological) that may cause sickness, impair health, or cause significant discomfort to employees or residents of the community. The course is taught concurrently with an undergraduate section, with additional course work and/or projects required of graduate students. PREREQ: Admission to MHS program and one year each undergraduate physics and organic chemistry, or PERM/INST.

MHLTHSCI 517 PRINCIPLES OF TOXICOLOGY (2-0-2) (F/S). An examination of the absorption, distribution, and excretion of toxicants in humans and health effects on target organs. Toxicologic evaluation, risk assessment, fate of hazardous substances in the environment and policies for the control of such substances will also be discussed. The course is taught concurrently with an undergraduate section, with additional course work and/or projects required of graduate students. PREREQ: Admission to MHS program and one year each undergraduate chemistry and biology for science majors, or PERM/INST.

#### MHLTHSCI 518 ENVIRONMENTAL HEALTH LAW (2-0-2)(S)

(Even years). Various aspects of environmental and health protection law are discussed, including sources of regulatory authority, legal procedures, agency roles, and specific statutes.

#### MHLTHSCI 520 HEALTH CARE SYSTEMS ORGANIZATION AND ADMINISTRATION (2-0-2) (F). Examines the history,

organization, and effectiveness of United States health care and public health systems. Topics will include the underlying constructs of health, the structure of the industry, funding for health care, and the role of managers and personnel in the system. PREREQ: Admission to MHS program or PERM/PROGRAM DIRECTOR.

### MHLTHSCI 522 MANAGEMENT FOR HEALTH

**PROFESSIONALS (3-0-3) (F/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 530 DEVELOPING INSERVICE EDUCATION

**(3-0-3)** (**F**/**S**/**SU**). Developing, presenting, and evaluating inservice and continuing education programs to professional peers and subordinates in traditional and non-traditional health care settings. Includes Development of Instructional Design Exercise (INDEX) and group presentations.

MHLTHSCI 532 DEVELOPING HUMAN RESOURCES (3-0-3)(S).

Developing and presenting in-service and/or continuing education programs to peers and subordinates in traditional and nontraditional health care settings.

#### MHLTHSCI 535 ETHICS AND HEALTH POLICY (2-0-2)(S).

Systematic examination of ethics as it relates to decision making in health policy. Discussion includes the moral issues of health care quality, right to life and right to death. PREREQ: Admission to MHS program or PERM/INST.

#### MHLTHSCI 540 HEALTH INFORMATION MANAGEMENT

**(3-0-3) (S).** The use of health information systems as a management tool in health policy and the impact of computer information systems on the structure and function of health care organizations, including administrative research to support decision making and problem solving using local and national computer data networks. PREREQ: Statistics and PERM/INST.

#### MHLTHSCI 542 HAZARDOUS WASTE MANAGEMENT

**(2-0-2)(S).** Historical, regulatory, and technical aspects of hazardous waste management, relating primarily to the requirements of the Resource Conservation and Recovery Act and the Comprehensive Environmental Reclamation, Compensation, and Liability Act.

#### MHLTHSCI 543 (COUN 543) ASSESSING AND MANAGING ADOLESCENT SUBSTANCE ABUSE AND MENTAL HEALTH

**RISKS (3-0-3) (F) (Even 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) (S).** Introduction to professional, ethical, legal, and practical aspects of chemical addictions and violence prevention (primary and secondary) in the schools and other settings (e.g., adolescent treatment). Examination of current research and available curriculum models, current identification and intervention approaches, and effective prevention programming. Historical and social contexts (e.g., Safe and Drug Free Schools and communities initiative) also included. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: Graduate standing.

MHLTHSCI 548 COUNSELING TECHNIQUES FOR HEALTH PROFESSIONALS (3-0-3) (F). Topics to include interviewing and questioning techniques, client observation and influencing skills, and ethics. Special emphasis is given to confrontation techniques which can help break through the denial system of patients and help determine sound treatment plans.

#### MHLTHSCI 550 CURRENT ISSUES IN HEALTH POLICY

**(3-0-3) (F/S).** Examines current issues in health care policy in the United States health care system. The structure, administration and financing of the health care system are reviewed and recent changes and their effects on cost, quality, and access to health care are discussed. Some attention is given to health policy issues in other countries as they influence and impact policy in the United States. PREREQ: Admission to MHS program or PERM/INST.

#### MHLTHSCI 552 (KINES 552) APPLIED STATISTICAL

**METHODS (3-0-3) (F,S).** An introduction to statistical techniques utilized in the treatment of data. The techniques to be covered include measures of central tendency and variability, correlation measures, probability, analysis of variance, and regression analysis. May be taken for KINES or MHLTHSCI credit, but not both. PREREQ: Completion of an undergraduate statistics course and graduate standing in MHS or Kinesiology, or PERM/INST.

#### MHLTHSCI 555 PROGRAM EVALUATION IN HEALTH

**DELIVERY SETTINGS (3-0-3) (S).** Topics include evaluation overview, models, and evaluative study objectives, methodological design, interpretation of data, and final report preparation. The course includes a thorough review of statistics and sampling as they apply to program evaluation methodologies. PREREQ: Undergraduate statistics, MHLTHSCI 505 and admission to MHS program, or PERM/INST.

#### MHLTHSCI 560 PUBLIC HEALTH DISASTER PREPAREDNESS PLANNING – RISK MANAGEMENT (3-0-3) (F) (Even years). Risk

assessment or risk management methods in public health disaster preparedness planning will be presented in context of natural and human-caused disasters. The environmental, economic, and social consequences for communities will be studied. PREREQ: Graduate standing or PERM/INST.

#### MHLTHSCI 564 (COUN 544) SCREENING AND ASSESSMENT OF ALCOHOL AND DRUG PROBLEMS (3-0-3)(F). Emphasis

on screening and assessment tool-procedures for substance abuse. Application of current interventions and screening processes. Legal, social, ethical, and health implications will be investigated. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: HLTHST 109 or COUN/MHLTHSCI 545 or PERM/INST.

# MHLTHSCI 565 (COUN 546) ASSESSMENT AND CASE MANAGEMENT OF ALCOHOL AND DRUG PROBLEMS

**(3-0-3) (S).** Emphasis on case management techniques including legal, social, ethical, and health implications. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: MHLTHSCI 564 or COUN 544 or PERM/INST.

#### MHLTHSCI 566 COMPLEMENTARY AND ALTERNATIVE THERAPIES (2-0-2) (F/S). An exploration of the ethical, legal

and policy issues surrounding non-conventional medical practices. Discussion on current research of efficacy and consumer acceptance will accompany clinical demonstrations of selected modalities, such as acupuncture and massage therapy.

#### MHLTHSCI 567 (COUN 567) CLINICAL SUPERVISION PRINCIPLES AND PRACTICE (1-0-1) (SU). 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) (Odd years). Examination of concepts of "mental disorders," DSM classification systems, and the diagnostic benefits and diagnostic problems inherent in such systems. An introduction and overview of the major psychopathological syndromes of adolescents and adults (especially in the area of Co-morbidity of Substance Abuse/Dependence and other DSM IV diagnoses) to facilitate appropriate use of assessment—diagnostic treatment links (including treatment planning). May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

#### MHLTHSCI 570 (KINES 570) HEALTH PROMOTION (3-0-3)

(**F/S**). Coverage of individual, interpersonal, and group/community theories of health behavior change, with emphasis on designing, implementing, and evaluating theory-based interventions. Other topics include studying the impact of diversity and social and economic factors on health, and improving the effectiveness of health behavior change programs for underserved groups. May be taken for KINES or MHLTHSCI credit, but not both.

#### MHLTHSCI 571 (COUN 571)(SOCWRK 571) FUNDAMENTALS

**OF HEALTH AGING (3-0-3) (F).** Overview of gerontology presented by examining major issues related to aging. Content includes theories of aging; the impact of an aging population; and future implications at local, national, and international levels. May be taken for MHLTHSCI, COUN, or SOCWRK credit, but only from one department.

#### MHLTHSCI 572 (KINES 572) GRANT WRITING (3-0-3)(SU).

Examination of the process of securing resources from external entities. Students will learn and apply a variety of techniques employed in proposal development and grant authorship. May be taken for MHLTHSCI or KINES credit, but not both.

MHLTHSCI 574 (KINES 574) HEALTH PROMOTION AND OPTIMAL AGING (3-0-3) (F) (Even years). Focus on promoting healthful behavior and quality of life among older adults. Application of theory, research, and practice to gerontological health promotion and wellness. May be taken for KINES or MHLTHSCI credit, but not both. May be taken for MHLTHSCI or KINES credit, but not both.

#### MHLTHSCI 576 HEALTH POLICY MAKING AND ISSUES IN AGING (3-0-3) (S) (Alternate years). Examination of the policy making process in relationship to health policies and services for the elderly at the national, state, and local levels. State and local policies and services will be studied to determine quality and effectiveness, identify gaps, and develop strategies to meet the increasing demands of a rapidly aging population.

MHLTHSCI 579 APPLICATIONS IN BIOSTATISTICS AND EPIDEMIOLOGY (3-0-3) (F/S). Application of advanced statistical and epidemiological methods in health sciences and public health. Emphasizes the role statistics and epidemiology plays in problem solving and research. PREREQ: HLTHST 480-480G or MHLTHSCI 501 or equivalent and MHLTHSCI 552 or equivalent.

#### MHLTHSCI 590 PRACTICUM/INTERNSHIP (0-V-3).

MHLTHSCI 591 PROJECT (0-V-6).

MHLTHSCI 593 THESIS (0-V-6).

MHLTHSCI 596 DIRECTED RESEARCH (0-V-3).

MHLTHSCI 597 SPECIAL TOPICS (0-V-3).

MHLTHSCI 598 SEMINAR IN HEALTH POLICY (2-V-2).

# MHLTHSCI 600 ASSESSMENT [Capstone Course](2-0-2).

#### PSYC-PSYCHOLOGY

#### PSYC 331G THE PSYCHOLOGY OF HEALTH (3-0-3) (F/S).

Principles that have emerged from the experimental analysis of behavior will be examined. The principles include, but are not limited to, operant and classical conditioning. The course will deal with applications of these principles to the understanding and change of phobias, obesity, smoking, alcoholism, aberrant behavior, and similar problems. PREREQ: PSYC 101.

#### **PSYC 438G COMMUNITY PSYCHOLOGY (3-0-3) (F,S).** Focuses on human and social problems in a systemic context. Primary prevention and community empowerment strategies employed for individual, community, and social benefit are emphasized.

#### PUBADM—PUBLIC AFFAIRS

**PUBADM 500 ADMINISTRATION IN THE PUBLIC SECTOR (3-0-3) (F,S).** Designed to introduce students to the broad field of public administration at the graduate level. The course surveys a number of important issues in contemporary public administration, including an emphasis on political, legal, economic and social institutions and processes.

**PUBADM 501 PUBLIC POLICY PROCESS (3-0-3) (S).** Process of policymaking both within an agency and within the total governmental process, emphasizing policy and program planning, policy implementation and the value system of administrators. PREREQ: Admission to MHS program or PERM/PROG DIR.

### **PUBADM 502 ORGANIZATIONAL THEORY (3-0-3)(F/S).** Theories of organization behavior and management, with special attention given to public sector organizations. Issues and problems



related to the nonprofit sector will also be addressed. PREREQ: Admission to MHS program or PERM/PROG DIR.

PUBADM 504 PUBLIC BUDGETING AND FINANCIAL MANAGEMENT (3-0-3) (F/S). Determination of fiscal policy, budgeting processes, and governmental forms of budgeting. Consideration of fiscal policy and processes in various program areas. Emphasis on the interface between technical and political processes.

**PUBADM 540 NATURAL RESOURCE AND ENVIRONMENTAL POLICY AND ADMINISTRATION (3-0-3) (F/S).** Examines the major issues, actors, and policies in the area of natural resources. Topics include: land and water management and use, the natural resource policy environment, the roles and behaviors of natural resource agencies, and alternative natural resource policy futures.

PUBADM 541 ENVIRONMENTAL AND REGULATORY POLICY AND ADMINISTRATION (3-0-3) (F/S). Examines aspects of environmental regulatory politics and policy. Topics examined include the politics of regulation, pollution and waste policy, and intergovernmental environmental management.

#### SOC-SOCIOLOGY COURSES

**SOC 500 ADVANCED SOCIAL STATISTICS (3-0-3)(S).** The methods of nonparametric statistics in the analysis of sociological data are examined in depth with application to research. PREREQ: SOC 101 and SOC 310 or equivalents as determined by consultation with department chair.

#### SOC 502 QUALITATIVE SOCIAL RESEARCH METHODS

**(3-0-3) (F).** An intensive course in interpretive social science, covering the practice of fieldwork ethnography, the use of computers in qualitative research, techniques of qualitative data analysis, and the writing of qualitative research reports. PREREQ: Graduate standing.

**SOC 512 SOCIAL DEMOGRAPHY (3-0-3) (F/S).** Techniques and methods for analyzing population growth, trends, and movement as reflected in actuarial data, birth-death rate; mobility, fertility and fecundity as these affect the societal patterns, especially planning for human service programs.

#### Idaho State University Courses:

MPH 601 Applications in Epidemiology MPH 602 Introduction to Biostatistics MPH 603 Applications in Biostatistics MPH 606 Environmental Health

# **Department of Nursing**

Chair: Pamela Springer Science Nursing, Room 107 Telephone: 208 426-4143 FAX: 208 426-1370 e-mail: nursing@boisestate.edu http://nursing.boisestate.edu

**Graduate Faculty:** Jeri Bigbee, Ingrid Brudenell, Cynthia Clark, Shoni Davis, Margaret Downey, Pamela Gehrke, Abigail Gerding Valeda Greenspan, Mary Hereford, Rosemary Macy, Sandra Nadelson, Nancy Otterness, Kathleen Reavy, Vivian Schrader, Pamela Springer, Leonie Sutherland, Dawn Weiler

Adjunct Graduate Faculty: Judy Farnsworth

# **Graduate Degrees Offered**

- Master of Nursing
- Master of Science in Nursing

# **General Information**

The Department of Nursing offers a graduate nursing program with two degree options: a Master of Science in Nursing (MSN) with a thesis that is foundational for doctoral level study and a Master of Nursing (MN) with a project for professional development. Both programs prepare the graduate for research and professional practice with a population health focus. A professional fee is charged to students each semester. The formula for clock to credit hours is 3:1 in laboratory courses.

# **Application and Admission Requirements**

Students interested in the nursing program must first submit a graduate application to the Graduate College Admission and Degree Services by February 1. If approved, the applicant receives a certificate of admission to enroll in graduate courses at BSU. Acceptance into the Graduate College at Boise State University is a prerequisite to admission into the nursing program, but does not by itself guarantee admission into the nursing program. (The student is advised to consult the General Admission Policies section of the Graduate College catalog for additional details on admission.)

Applications are accepted on a rolling basis throughout the year. Available spaces, pending funding allocations, are first filled from the qualified applicant pool who met the published deadline. After the spaces are filled, any remaining qualified applicants will be placed on an alternate list. If all spaces are not filled from the pool who met the deadline, then qualified candidates will be accepted in the order of the date of their application.

### College of Health Sciences Department of Nursing

Applicants admitted to the Graduate College are eligible to apply to the graduate program in the Department of Nursing. The following requirements must be met:

- 1. Possess a baccalaureate degree in nursing from a nationally accredited nursing program;
- 2. Possess a valid, unencumbered R.N. license from the State of Idaho;
- 3. GPA of 3.0 (on a 4.0 scale) computed for the last half of the undergraduate credits;
- 4. Completed, or planned for completion prior to beginning of fall semester, HLTHST 480 Epidemiology or comparable course and undergraduate statistics with a C or higher;
- 5. Submission of a Department of Nursing Graduate Program application with a non-refundable application fee to the Department of Nursing by February 1;
- 6. Submission of 2 reference forms from current employer or prior nursing faculty;
- 7. Submission of written statement following current guidelines.

Applicants should obtain current requirements from the Department of Nursing or its website.

Foreign students must comply with the following from the Commission of Graduates of Foreign Nursing Schools (CGFNS): **For more information contact the Idaho State Board of Nursing** 

- 1. Credentials Review.
- 2. Qualifying examination of nursing knowledge.
- 3. English language proficiency exam.

### **Student Guidance**

The Associate Chair for Graduate Studies in Nursing will serve as the student advisor until a major advisor is confirmed. Students admitted to the graduate program, with assistance from the associate chair, will select a major advisor who will serve as chair of the supervisory committee. The purpose of the supervisory committee is to establish, with the student, a program of study; to guide the student's thesis or project; to conduct the thesis or project defense and approve the final thesis or project. The supervisory committee consists of at least three individuals, including a chair that assumes the role of graduate advisor, and at least two other committee members. The committee is usually formed in the second semester of graduate study in the major, but no later than advancement to candidacy.

# Master of Nursing

**Graduate Program Coordinator:** Abigail A. Gerding **Program Information:** Marian Graham

Science Nursing, Room 153 Telephone: 208 426-4143 FAX: 208 426-1370 e-mail: nursing@boisestate.edu http://nursing.boisestate.edu

### **Degree Requirements**

A minimum of 39 credits is required for graduation. The parttime 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 550 Applied Statistical Methods <b>OR</b> KINES 552 Applied Statistical Methods	3
MHLTHSCI 579 Applications in Biostatistics and Epidemiology in Public Health	3
Graduate Nursing Courses (30 credits)	
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	2
NURS 509 Advanced Research and Scholarly Inquiry for Nursing Laboratory	1
NURS 512 Educational Leadership	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 591 Project	6
Elective Course	3
TOTAL	39

# Master of Science in Nursing

Graduate Program Coordinator: Abigail A. Gerding Program Information: Marian Graham

Science Nursing, Room 153 Telephone: 208 426-4143 FAX: 208 426-1370 e-mail: nursing@boisestate.edu http://nursing.boisestate.edu

### **Degree Requirements**

A minimum of 39 credits is required for graduation. The parttime 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 550 Applied Statistical Methods <b>OR</b> KINES 552 Applied Statistical Methods	3
MHLTHSCI 579 Applications in Biostatistics and Epidemiology in Public Health	3
Graduate Nursing Courses (30 credits)	
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	2
NURS 509 Advanced Research and Scholarly Inquiry for Nursing Laboratory	1
NURS 512 Educational Leadership	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
Elective Course	3
TOTAL	39

# **Course Offerings**

#### NURS-NURSING

NURS 502 FOUNDATION OF KNOWLEDGE AND THEORY FOR ADVANCED NURSING (3-0-3) (F/S). Critique, evaluate, and utilize conceptual and theoretical models in advanced nursing practice. Emphasis on linking theories with nursing. PREREQ: Admission to Graduate Program in Nursing or PERM/INST.

### NURS 504 (MHLTHSCI 504) HEALTH CARE ECONOMICS,

**FINANCING AND DELIVERY (3-0-3) (F/S).** Differentiates health care economics, financing and payment systems as context for fiscal management and budgeting; examines health care delivery from organizational and operational perspectives, all of which are applied in writing proposals. May be taken for NURS or MHLTHSCI credit, but not both. PREREQ: Admission to Graduate Program in Nursing or Master of Health Science Program or PERM/INST.

#### NURS 508 ADVANCED RESEARCH AND SCHOLARLY

**INQUIRY FOR NURSING (2-0-2) (F/S).** Design research methods for utilization in advanced nursing roles. PREREQ: NURS 502. PRE/COREQ: MHLTHSCI 552 or PERM/INST.

#### NURS 509 ADVANCED RESEARCH AND SCHOLARLY INQUIRY FOR NURSING LABORATORY (0-3-1)(F/S).

Application of research methods for utilization in advanced nursing roles. PREREQ: NURS 502. PREREQ or COREQ: MHLTHSCI 552, NURS 508 or PERM/INST.

NURS 512 (MHLTHSCI 512) EDUCATIONAL LEADERSHIP

**(2-0-2) (F/S).** Integrates and synthesizes leadership, educational and other theories and frameworks using simulated and/or real experiences to develop strategies in presentational leadership for advanced nursing. May be taken for NURS or MHLTHSCI credit, but not both. PREREQ: Admission to Graduate Program in Nursing or Master of Health Science Program.

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.

# **College of Social Sciences and Public Affairs**

#### **Dean: Melissa Lavitt** Telephone 208 426-3776

#### Associate Dean: L. Shelton Woods

Telephone 208 426-1368 Education Building, Room 722 FAX 208 426-4318 http://sspa.boisestate.edu

### **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 Public Administration
- Master of Social Work, Two Year Program



- Master of Social Work, Advanced Standing
- Graduate Certificate in Community and Regional Planning
- Graduate Certificate in Conflict Management
- Graduate Certificate in Gerontological Studies
   (See Interdisciplinary Programs)

The College also prepares students for careers in secondary education in history and the social sciences. In addition, the College's location in the state's population, business, and government hub provides outstanding opportunities for students to serve as interns in government agencies, the Idaho legislature, corporations, nonprofit agencies and numerous other places in the public and private sector.

#### **Chair: Mark Plew**

Hemingway Western Studies Center, Room 55 Telephone 208 426-3023 FAX 208 426-4329 http://anthro.boisestate.edu/ e-mail: fbrigha@boisestate.edu

**Graduate Faculty:** Christopher Hill, Mark Plew, Margaret Streeter, John Ziker

Adjunct Graduate Faculty: Kendall House

# **Graduate Degrees Offered**

- Master of Arts in Anthropology
- Master of Applied Anthropology

# **General Information**

The Department of Anthropology offers two distinct graduate programs. The program leading to the Master of Arts in Anthropology degree emphasizes research and requires completion of a thesis. The program leading to the Master of Applied Anthropology degree is a professional science program and requires completion of a project representing exemplary professional practice. Students in both programs complete a core of advanced courses providing thorough exposure to modern theory and methods in anthropology.

# **Application and Admission Requirements**

Application and Admission Procedures. Prospective students are encouraged to discuss their goals and interests with the graduate program coordinator. An applicant must follow the general application procedures for admission to a graduate program (see Graduate Admission Regulations). An applicant must also provide GRE General Test scores, a letter of intent (describing background, academic interests, and career goals), and two letters of recommendation from academic faculty. Once the file for an applicant is complete, it will be evaluated by a committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the graduate dean. The dean will make the final admission decision and notify the applicant.

Conditions for Admission. Applicants must satisfy the minimum admission requirements of the Graduate College and must hold a baccalaureate degree in anthropology or a related field. Admission is competitive and is not guaranteed to any applicant.

### **Student Guidance**

The graduate program coordinator will assign a temporary faculty advisor to each student prior to the first semester of enrollment. By the end of the first semester, the advisor, in consultation with the student, will initiate the appointment of a three-person supervisory committee that will assume responsibility for guidance.

# Master of Arts in Anthropology

**Graduate Program Coordinator:** Mark Plew Hemingway Western Studies Center, Room 55 Telephone 208 426-3023 FAX 208 426-4329 http://anthro.boisestate.edu/ e-mail: fbrigha@boisestate.edu

# **Degree Requirements**

Master of Arts in Anthropology. Students must complete at least 31 credits distributed as shown in the degree requirements table. All students must complete at least one year of foreign language courses as a background requirement (language courses completed in an undergraduate program may fulfill this requirement); research in some geographic areas may require additional language skills. Based on guidance from their faculty advisory committee, students prepare for and successfully complete their preliminary examination. All requirements for the degree must be completed within a period of seven years.

Master of Arts in Anthropology	
Course Number and Title	
Core Sequence	12
ANTH 501 Synchronic Methods in Anthropology 3 ANTH 502 Diachronic Methods in Anthropology 3	
ANTH 503 History and Theory in Anthropology 3	
ANTH 504 Quantitative Methods in Anthropology 3 With the approval of the supervisory committee, a student may substitute a comparable 3-credit	
course for ANTH 504.	10
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 Telephone 208 426-3023 FAX 208 426-4329 http://anthro.boisestate.edu/ 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 Synchronic Methods in Anthropology 3 ANTH 502 Diachronic Methods in Anthropology 3 ANTH 503 History and Theory in Anthropology 3 ANTH 504 Quantitative Methods in Anthropology 3 With the approval of the supervisory committee, a student may substitute a comparable 3-credit course for ANTH 504.	12
<b>Elective Courses</b> 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**

#### ANTH-ANTHROPOLOGY

#### ANTH 501 SYNCHRONIC METHODS IN ANTHROPOLOGY

**(3-0-3) (F).** A reading-intensive survey of the major issues, methods, and findings relevant to anthropological studies of human societies. This course will focus on social processes and phenomenon occurring at one time, including human-resource relationships, social, economic, and political organization and decision-making, micro-demographics, and spatial patterning of human groups.

#### ANTH 502 DIACHRONIC METHODS IN ANTHROPOLOGY

**(3-0-3) (S).** A reading-intensive survey of the major issues, methods, and findings relevant to anthropological studies of humans. This course will focus on social processes and phenomenon occurring across time, including basic paleoanthropology, primatology, behavioral ecology, human evolutionary biology, and genetics.

#### ANTH 503 HISTORY AND THEORY IN ANTHROPOLOGY

**(3-0-3) (F).** A reading-intensive survey of history and theory in anthropology from classical times through the 20th century. A review of history and philosophy of science with emphasis upon innovations in 19th and 20th century theory relevant to current issues and debates.

ANTH 504 QUANTITATIVE METHODS IN ANTHROPOLOGY (3-0-3) (S). Methods of multivariate statistics in the analysis of anthropological data.

**ANTH 505 QUALITATIVE METHODS IN ANTHROPOLOGY (3-0-3) (F/S) (Alternate years).** An introduction to qualitative methods research and analysis including in-depth interviewing, participant observation, focus groups, and discourse analysis.

ANTH 520 QUATERNARY STRATIGRAPHY AND PALEOENVIRONMENTS (3-0-3) (F/S) (Alternate years). Global to site-specific scale review and evaluation of lithostratigraphic and biostratigraphic contexts focusing on the last three million years of human prehistory. Emphasis on integration of chronologic, biotic, geomorphic and isotopic evidence of environmental change on the human time-scale.

ANTH 521 NORTH AMERICAN PALEOENVIRONMENTS (3-0-3) (F/S) (Alternate years). Examines the application of physical and biotic evidence to evaluate changing environments and their relationship to prehistoric human populations. Focus is on past environmental change in western North America placed within continental-scale and global-scale contexts.

ANTH 522 HUNTER-GATHERER ETHNOARCHAEOLOGY (3-0-3) (F/S) (Alternate years). Examination of variability in adaptations by modern hunter-gatherer populations emphasizing subsistence, mobility, and social organization. Focus is on examination of lithic technology, faunal analysis, and site structure as sources of archaeological interpretation.

ANTH 523 ADVANCED ARCHAEOLOGICAL FIELD METHODS (3-0-3) (SU). Emphasis upon developing research designs, decisionmaking, 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 533 CROSS-CULTURAL ISSUES IN AGING, DEATH, AND DYING: AN ANTHROPOLOGICAL APPROACH (3-0-3)

(**F/S**) (Alternate years). This course is designed as an introduction to the variety of ways in which cultures in the United States and around the world approach the aging process, the treatment of those who are dying, and the various collective responses to death. The course relies on the examination of published work in the area of cross-cultural health care, gerontology, and ritual.

#### ANTH 534 SEX AND GENDER: AN ETHNOLOGICAL

**APPROACH (3-0-3) (F/S) (Alternate years).** This course will explore changing definitions and perceptions of sex and gender within a variety of cultures throughout the world. Biological determinism, homosexuality, transsexuality, and culturally determined concepts of male and female behavior are placed within the global discussion of gender that includes, but extends beyond, academic social theory.

#### ANTH 580 SELECTED TOPICS IN ANTHROPOLOGY (F/S). Philosophical and theoretical issues in anthropology. Developments in methodology and technical advances in anthropological research. Seminar topics will vary.

**ANTH 600 ASSESSMENT [Preliminary Examination] (F/S).** Based on guidance from their faculty advisory committee, students prepare for and successfully complete their preliminary examination. (Pass/Fail.)

# Department of Communication

#### **Chair: Rick Moore**

Communication Building, Room 102 Telephone 208 426-3562 FAX 208 426-1069 http://comm.boisestate.edu

**Graduate Faculty:** Mary Frances Casper, Peter Lutze, Ed McLuskie, Rick Moore, Dan Morris, Marty Most, Natalie Nelson Marsh, Heidi Reeder, Robert Rudd, Laurel Traynowicz, Peter Wollheim

# Master of Arts in Communication

**Graduate Program Coordinator:** Peter Wollheim Communication Building, Room 222 Telephone 208 426-3532 FAX 208 426-1069 e-mail: pwollhe@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 ofintent (describing background, academic interests, and career goals), and two letters of recommendation from academic faculty. Once the file for an applicant is complete, it will be evaluated by the department graduate committee and the coordinator, and an admission recommendation (regular, provisional, or denial) will be forwarded to the graduate dean. The graduate dean will make the final admission decision and notify the applicant.

Conditions for Admission. Applicants must satisfy the minimum admission requirements of the Graduate College (see the Graduate Admission Regulations section of this catalog). The required baccalaureate degree must be in communication or a related field involving substantial course

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work in communication. Admission is competitive and it is possible that not all qualified applicants will be admitted to the program.

# **Student Guidance**

By the end of the first semester, the graduate program coordinator, in consultation with the student, will initiate the appointment of a three-person supervisory committee that will assume responsibility for student guidance.

### **Degree Requirements**

Master of Arts in Communication		
Course Number and Title	Credits	
Core Sequence	7	
COMM 501 Communication Research and		
Writings		
COMM 505 Theory and Philosophy of		
Communication 3		
COMM 598 Seminar 1		
Elective Courses	12-18	
(Choose from the following courses to total 12-18 credits)		
COMM 506 Interpersonal Communication		
COMM 507 Organizational Communication		
COMM 508 Media Theory and Practice		
COMM 509 Legal and Ethical Aspects of		
Communication 3		
COMM 510 Community, Communication and		
Politics		
COMM 511 Critical Theory 3		
COMM 512 Culture and Communication		
COMM 513 Public Relations		
COMM 514 Media Writing3		
COMM 580 Selected Topics: Advanced Theory		
and Philosophy3		
COMM 581 Selected Topics: Advanced Research		
and Writing3		
COMM 582 Selected Topics: Advanced		
Interpersonal Communication		
COMM 583 Selected Topics: Advanced		
Organizational Communication		
COMM 584 Selected Topics: Advanced Media		
Theory and Practice		
COMM 585 Selected Topics: Advanced Culture		
and Communication3		
COMM 586 Selected Topics: Advanced Studies in		
Critical Theory 3		
COMM 587 Selected Topics: Advanced Studies		
in Globalization3		
COMM 588 Selected Topics: Advanced Cross-		
Cultural Communication3		
COMM Selected Topics: 589 Advanced Public		
Relations		
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Master of Arts in Communication (continued)	
Other Elective Courses	0-6
Choose from the following courses as necessary to	
reach the total credit requirement:	
COMM 590 Practicum/Internship 3-6	
COMM 595 Readings and Conference 3-6	
COMM 596 Directed Research 3-6	
Culminating Activity	6
COMM 593 Thesis	
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

#### COMM-COMMUNICATION

#### COMM 501 COMMUNICATION RESEARCH AND WRITING

**(3-0-3) (F).** A critical overview of leading theoretical and research traditions in communication studies, with special emphasis on epistemological issues. Examines the application of research to professional environments, civil society and other contexts.

#### COMM 505 THEORY AND PHILOSOPHY OF

**COMMUNICATION (3-0-3) (S).** An overview of communication studies. Emphasizes the metaphysical, epistemological, ethical and aesthetic dimensions of various schools of communication thought.

#### COMM 506 INTERPERSONAL COMMUNICATION (3-0-3)(F).

Examines the range and variety of theories and research in areas such as attraction, relational development and maintenance, friendship and courtship, inter-racial and same-sex relationships, and relationship decline.

#### COMM 507 ORGANIZATIONAL COMMUNICATION (3-0-3)(S).

Survey of contemporary theory and research as applied to the study of all types of organizations. Explores the role of communication in the creation and constitution of organizational reality.

#### COMM 508 MEDIA THEORY AND PRACTICE (3-0-3)(F).

Examines a broad range of theoretical perspectives on media institutions, practices, and effects. Emphasis is given to the implications of media theory and research for citizens, members of civic and professional organizations who work with media, as well as media practitioners. Topics may include theory and research regarding the media's role in education, persuasion, entertainment, socialization, social structure, politics, psychological effects, and business.

#### **COMM 509 LEGAL AND ETHICAL ASPECTS OF**

**COMMUNICATION (3-0-3) (S).** Advanced examination of ethical and legal issues facing practitioners and the public. Topics may include First and Fourth Amendment, the right to privacy, censorship, libel and slander, copyright, and media and national security considerations.

#### COMM 510 COMMUNICATION, COMMUNITY AND POLITICS

**(3-0-3) (F).** Concentrates on the intersections among theory and practice in communication studies, community organization and political science. It looks at all three in terms of the exercise of power, and the conflicts between autonomy and control in a range of social settings.

**COMM 511 CRITICAL THEORY (3-0-3) (S).** A seminar on the work of the Frankfurt School and its role in the communication theory of society. Special emphasis on critical epistemology as social theory, the political economy of culture, and discourses growing out of twentieth-century and twenty-first century debates over modernity.

**COMM 512 CULTURE AND COMMUNICATION (3-0-3) (F).** Advanced studies in current issues and theoretical perspectives in the study of rhetoric, communicative relationships, the art and performance of communication, and intercultural communication. Topics include the history of the terms "culture" and "communication," and the evolution of theoretical perspectives on both terms.

**COMM 513 PUBLIC RELATIONS (3-0-3) (F).** Advanced studies in public information, investor relations, public affairs, corporate and nonprofit communication, marketing or customer relations, with emphasis on how public relations also helps shape organizations and the way they work. Topics include the history of public relations and the role of research, feedback and evaluation in the design of effective campaigns and messages in an information-rich society.

**COMM 514 MEDIA WRITING (3-0-3)(S).** An intensive examination of the theory and practice of information-gathering and writing techniques for print and broadcast media. Subjects include strategic and technical writing, business writing, documentation, speeches, and integrating the written word with visual design.

#### SELECTED TOPICS

**COMM 580 ADVANCED THEORY AND PHILOSOPHY COMM 581 ADVANCED RESEARCH AND WRITING COMM 582 ADVANCED INTERPERSONAL COMMUNICATION COMM 583 ADVANCED ORGANIZATIONAL** COMMUNICATION **COMM 584 ADVANCED MEDIA THEORY AND PRACTICE COMM 585 ADVANCED CULTURE AND COMMUNICATION COMM 586 ADVANCED STUDIES IN CRITICAL THEORY COMM 587 ADVANCED STUDIES IN GLOBALIZATION** COMM 588 ADVANCED CROSS-CULTURAL COMMUNICATION **COMM 589 ADVANCED PUBLIC RELATIONS COMM 590 PRACTICUM** COMM 591 PROJECT (0-V-3) COMM 593 THESIS (0-V-3) **COMM 594 WORKSHOP COMM 595 READING AND CONFERENCE COMM 596 DIRECTED RESEARCH COMM 597 SPECIAL TOPICS** COMM 598 GRADUATE SEMINAR (1-0-1)

# Department of Criminal Justice

#### **Chair: Andrew Giacomazzi**

Library, Room 166 Telephone 208 426-4114 FAX 208 426-4371 http://cja.boisestate.edu e-mail: sraney@boisestate.edu

**Graduate Faculty:** Jeremy Ball, Michael Blankenship, Lisa Growette Bostaph, Andrew Giacomazzi, Craig Hemmens, Norma Jaeger, Robert Marsh, David Mueller, Mary Stohr, Anthony Walsh, Ilhong Yun

Adjunct Graduate Faculty: Christine Isaacs

# Master of Arts in Criminal Justice

**Graduate Program Coordinator:** David Mueller Library, Room 166E Telephone 208 426-2645 e-mail: dmueller@boisestate.edu

# **General Information**

The master's degree in Criminal Justice is designed to provide a foundation in applied research and theory, in substantive areas of criminal justice activity, and focused scholarship on issues of importance in Idaho. Curricula are organized into two sections. The first section, called the Foundation Series, is a set of core classes that will provide students with the intellectual skills needed for the study of more complex material. The second section, the Seminar Series, promotes the development of scholarship in particular substantive areas in criminal justice. Students will also be required to take electives and write either a project or a thesis.

# **Admission Requirements**

To be considered for regular status as a graduate student in the Department of Criminal Justice, students must meet general Graduate College requirements and the following department requirements:

- 1. An undergraduate degree in Criminal Justice or related social or behavioral science with at least a 3.0 average is required for admission to graduate study.
- 2. Completion of an undergraduate statistics course.
- 3. CJ 101 Introduction to Criminal Justice or its equivalent (required for all entering students).
- 4. Graduate Record Exam (GRE) scores forwarded to Graduate Admissions and Degree Services.

### **Application Requirements**

Application for admission to the Criminal Justice graduate program may be made at any time. However, it is recommended that the prospective student make application to the Graduate Admissions Office at least one full semester prior to expected enrollment. At that time the student will pay the application fee, complete an application form and arrange to have transcripts for all schools of higher education previously attended sent directly to the Boise State University Graduate Admissions Office.

Applicants must also send directly to the Department of Criminal Justice a Statement of Purpose explaining the student's reasons for seeking admission and what they hope to achieve, and three letters of recommendation from individuals competent to judge the student's likelihood of success in graduate studies. It is recommended that the applicant also schedule an interview with the Criminal Justice Graduate Program Coordinator.

The Department of Criminal Justice will take no action on the application until all of the above materials have been received. Applicants who wish to enroll in the Fall semester should complete applications by May 1 (November 1 for the Spring semester).

### **Degree Requirements**

Students are required to complete 33 hours of graduate study at the 500 level and above for the Master of Arts degree in Criminal Justice. Students complete 15 credits from CJ 501. CJ 502, CJ 503, 504, and CJ 506. Students are also required to elect at least 9 additional credit hours from among criminal justice courses in the Seminar Series. A master's thesis or project must be completed prior to the award of the degree. Six hours of graduate study will be awarded upon successful completion of the thesis and three for completion of the project. Elective credit must be approved and be consistent with the student's course of study. Students may pursue up to three hours of study in other approved graduate classes in or outside the department if they select the thesis option, and six if they select the project option. Consistent progress toward the degree and maintenance of a cumulative 3.0 average are required for continuation in the program. Upon completion of the thesis or project and course work, an oral examination is required of all students and will be administered by the student's thesis or project committee. An overall grade point average of 3.0 is required for graduation.

Master of Arts in Criminal Justice	
Course Number and Title	Credits
Foundation Series	15
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	
CJ 502 Organization and Management of	
Criminal Justice3	
CJ 503 Criminal Justice Research	
CJ 504 Statistics for Criminal Justice	
CJ 506 Theories of Crime3	
Seminar Series	9
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	
CJ 507 Issues in Contemporary Policing3	
CJ 508 The Legal Process 3	
CJ 509 Juvenile Justice3	
CJ 510 Punishment and Corrections	
CJ 511 Community Corrections	
CJ 512 Gender and Justice	
Electives	3-6
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.	
Thesis or Project Option	3-6
CJ 591 Project3	
CJ 593 Thesis 6	
TOTAL	33

### **Course Offerings**

CJ-CRIMINAL JUSTICE

### FOUNDATION COURSES

**CJ 501 CRIME AND CRIMINAL JUSTICE (3-0-3) (F).** This class locates the profession of criminal justice within historical, theoretical, and political perspectives. The class will focus on contemporary theoretical perspectives, including sociological, social-psychological, biosocial, cultural, genetic, linguistic, and evolutionary. The nature and scope of the discipline are defined through the discussion of the relationships among theory, policy, and practice.

**CJ 502 ORGANIZATION AND MANAGEMENT OF CRIMINAL JUSTICE (3-0-3) (S).** The structures, operations, and functions of criminal justice organizations are analyzed. Issues within these areas are approached with attention to their cultural, social, and political implications. The relationship between formal and informal structures and their social, political and legal environment is examined.

**CJ 503 CRIMINAL JUSTICE RESEARCH (3-0-3)(F).** Basic methods of quantitative and qualitative research and their application to the field. The relationship among theory, research, and social policy. The development and interpretation of research reports.

**CJ 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 datasources. 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.

### College of Social Sciences and Public Affairs Department of Criminal Justice

#### 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 591 PROJECT (0-V-3).

CJ 593 THESIS (0-V-6)(F,S,SU).

CJ 595 READINGS AND CONFERENCE (3-0-3)(F,S,SU) .

CJ 596 DIRECTED RESEARCH (3-0-3)(F,S,SU).

# **Department of History**

Chair: Nicholas Miller Library Building, Room 192 Telephone 208 426-2129 Fax 208 426-4058 http://history.boisestate.edu e-mail: historygradbsu@boisestate.edu

**Graduate Faculty:** Barton Barbour, John Bieter, Lisa Brady, Peter Buhler, Nicanor Dominguez Jill Gill, Errol Jones, Joanne Klein, Lynn Lubamersky, Lisa McClain, Nicholas Miller, Charles Odahl, Sandra Schackel, Todd Shallat, L. Shelton Woods, Michael Zirinsky

Adjunct Graduate Faculty: David Walker

### **Graduate Degrees Offered**

- Master of Arts in History
- Master of Applied Historical Research

### **General Information**

The Master of Arts in History and the Master of Applied Historical Research degrees prepare students for work in the field of history. The History Masters programs are based upon a solid, committed faculty and multiple resources. With fifteen permanent and many adjunct faculty, the department of history offers courses in a wide variety of topics in the fields of non-western, United States, and European history. Graduate faculty are deeply involved in research and writing in their respective major fields (for more information on the faculty, see the department web page: http:// history. boisestate.edu). The department of history encourages a collegial atmosphere in which students and faculty work closely together. Its main goal is to prepare students for further study or for a successful career in history. Besides a faculty rich in its diversity and talents, the location of the university in the capital city of Idaho gives students access to the State Archives, Idaho State Historical Museum, the state's Law Library, the Survey Research Center, the Frank Church Archive, and other research facilities. Boise State University's Albertsons library has a collection of almost 550,000 bound volumes and periodicals and subscribes to more than 4,900 serials. It is also a selective US Government and Canadian document depository, as well as an Idaho State depository. The interlibrary loan system makes the holdings of other excellent collections accessible to Boise State students. Several large corporations with home offices in Boise have opened their archives to students and faculty doing research on department-supported topics.

Advising of Incoming Graduate Students: The coordinator of graduate studies in history will act as temporary advisor for all newly admitted students. The student will establish a supervisory committee as soon as possible, normally during the first semester enrolled. The committee chair will act as advisor and thesis or project director. Other members of the committee will be chosen by the student and his or her advisor. The entire program leading to the degree will be planned by the student in conjunction with his or her supervisory committee.

### **Application and Admission Requirements**

**Application Procedures:** The history department accepts new candidates for the fall or spring semesters. To be admitted for the fall semester and be considered for departmental funding, applications must be received by January 15. To be admitted for fall without funding, the application deadline is April 1. Those seeking to start in spring semester must submit applications by September 15. By these deadlines, the student will need to have deposited the following with the Graduate College: the application fee, an application form, and transcripts from all schools of higher education previously attended.

Applicants must also send directly to the director of graduate studies in history a letter of application explaining why the student wishes to be admitted, 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: 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 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. 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 Historians and Historical Interpretation	3
HIST 501 Sources of Human Tradition	3
Approved History Electives	21
OR	
Approved History Electives	
Approved Electives Outside of History9	
HIST 593 Thesis	6
TOTAL	33
Note: One year of foreign language is required for graduation; these	e credits

Note: One year of foreign language is required for graduation; these credits do not count towards the required 33 credits for the degree.

### Master of Applied Historical Research

**Coordinator of Graduate Studies:** Jill Gill Library Building, Room 180 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. The applied research project is the cumulative activity for the Master of Applied Historical Research. All projects, regardless 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 Historians and Historical Interpretation	3
HIST 501 Sources of Human Tradition	3
HIST 502 Topics in Applied Historical Research	3
Approved History Electives	18
Approved History electives	
HIST 591 Project	6
TOTAL	33
Note: One year of foreign language or a technical equivalent is requ	uired for

Note: One year of foreign language or a technical equivalent is required for graduation; these credits do not count towards the required 33 credits for the degree.

### **Course Offerings**

### HIST —HISTORY

Also see University-wide Graduate Course Descriptions. HIST 500 HISTORIANS AND HISTORICAL INTERPRETATION (3-0-3) (F). A study of major historians and schools of historical interpretation from Ancient Greece to the twentieth century. Discussion concentrates on written history and the problems of interpretation. Oral and written participation and a major paper are required. PREREQ: Admission to graduate program or PERM/CHAIR.

**HIST 501 SOURCES OF HUMAN TRADITION (3-0-3)(S).** Topics in the History of Humanity beginning with the Classical Greeks and other ancient traditions through the present era. A comparative study of intellectual and cultural trends reflected in the human philosophical tradition, both secular and religious. PREREQ: Admission to the graduate program or PERM/CHAIR.

**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 graduate program or PERM/CHAIR.

HIST 581 SELECTED TOPICS: GRADUATE SEMINAR IN U.S. HISTORY (3-0-3) (F/S/SU). Critical analyses of source materials and historical scholarship on topics of restricted scope in U.S. History. Emphases placed upon student reports, class discussions, individual research on relevant topics and the writing of historical papers. PREREQ: Admission to graduate program or PERM/CHAIR.

HIST 582 SELECTED TOPICS: GRADUATE SEMINAR IN REGIONAL HISTORY (3-0-3) (F/S/SU). Critical analyses of source materials and historical scholarship on topics of restricted scope in Regional history. Emphases placed upon student reports, class discussions, individual research on relevant topics and the writing of historical papers. PREREQ: Admission to the graduate program or PERM/CHAIR.

## Department of Public Policy and Administration

### **Chair: Stephanie Witt**

Public Affairs and Art West Building, Room 127 Telephone 208 426-1476 FAX 208 426-4370 http://ppa.boisestate.edu

**Graduate Faculty:** Les Alm, Ross Burkhart, Elizabeth Fredericksen, John Freemuth, Greg Hill, Richard Kinney, Susan Mason, Suzanne McCorkle, Gary Moncrief, Greg Raymond, David Solan, Stephanie Witt

Adjunct Graduate Faculty: Diane Kushlan, Janet Mills, Cathy Silak, James Weatherby (Emeritus), William Whelan, Stephen Wilson, Jeffrey Youtz

### **Graduate Degrees Offered**

- Master of Public Administration
- Graduate Certificate in Community and Regional Planning
- Graduate Certificate in Conflict Management

### Master of Public Administration

**Director of Graduate Studies:** Elizabeth Fredericksen Public Affairs and Art West Building, Room 127 Telephone 208 426-1476 e-mail: mpa@boisestate.edu

### **General Information**

Public Administration Education: The Department of Public Policy and Administration offers the master's degree in public administration (MPA), an important academic nucleus of the University's designated area of emphasis in public affairs. As the urban university in Idaho located in the capital city, Boise State has been given the mandate to provide educational opportunities related to public affairs. The Department offers this degree to help fulfill that mandate. It is the only MPA accredited by the National Association of Schools of Public Affairs and Administration (NASPAA) in Idaho and one of only seven in the six states surrounding Idaho.

The MPA is designed to prepare pre-service students and in-service professionals for positions of leadership in public service. Administrators and other staff members in all levels of government, non-profit organizations and private sector governmental affairs departments take advantage of the general administrative and policy analysis curriculum offered in the MPA. The curriculum provides the theoretical and practical dimensions of public management necessary to assist students seeking public service careers. The MPA has three concentrations: (1) General Public Administration (2) Environmental and Natural Resource Policy and Administration, and (3) State and Local Government Policy and Administration.

Based upon its lead role in public policy, the Master of Public Administration plays an important role in the administration and delivery of courses in the Master of Health Science, Health Policy emphasis.

**Public Administration Applied Research and Service:** In keeping with the University's role and mission in public affairs, **The Public Policy Center** is involved in a number of important training and applied research activities that have major statewide impact. In addition to a number of specialized projects funded by grants and contracts, the Center sponsors the annual Mountain West Municipal Clerks and Treasurers Institute, and the City Managers and Administrators Conference.

The Center also produces handbooks that are widely used by officials throughout the state: the *Idaho Legislative Manual* for legislators, and the *Handbook for Elected County Officials*.

In 1995, the U.S. Environmental Protection Agency designated Boise State University as the location for its Region 10 **Environmental Finance Center**, one of only nine in the U.S. The Center's central goal, under the administration of the Department of Public Policy and Administration, is to help create sustainable environmental systems for protecting public health and the environment by educating and training state and local officials.

### **Application and Admission Requirements**

Students interested in the MPA program must first submit a graduate application to the Graduate Admissions Office. If approved, the applicant receives a certificate of admission to enroll in courses at Boise State. This certificate of admission is a **prerequisite** to admission into the MPA program, but does not by itself guarantee admission into the MPA program. (The student is advised to consult the Graduate Admission Policies section of this catalog for more detail on admission to the Graduate College.) To receive financial aid, students must be officially accepted into the MPA Program with regular or provisional status. Admittance to the Graduate College only is not sufficient to receive financial aid.

Applicants admitted to the Graduate College who wish to apply to the MPA program must meet the following requirements prior to enrollment in MPA courses:

- 1. Meet with the MPA Director of Graduate Studies to discuss the admission process, the applicant's career interests, and reasons for seeking admission to the MPA program.
- 2. Possess a baccalaureate degree from an accredited institution.
- 3. Demonstrate satisfactory academic competency by attaining an overall GPA of at least 3.0 and a minimum combined score of 1,000 on the Graduate Record Examination (GRE) verbal and quantitative sections. The GRE requirement can be waived for students who

have earned a master's degree from an accredited program.

- 4. Submit official transcripts from all previous academic institutions to the Graduate Admissions Office.
- Submit three letters of reference, in which the applicant's academic potential is evaluated, to the MPA Admissions Committee, Department of Public Policy and Administration, Boise State University, 1910 University Drive, Boise, ID 83725-1935.
- 6. Submit the *MPA Data Form*, and a formal statement of at least 500 words explaining the applicant's educational and career objectives.
- 7. Applicants who do not meet all of the above requirements **may** be recommended by the MPA Admissions Committee for admission with provisional graduate status. However, these students must satisfy all of the conditions of their provisional status before they will be recommended for regular graduate status. Application files are due February 1 for Fall admission and September 1 for Spring admission.
- 8. Students may not take more than 9 credits (3 of which can be a core class) prior to official acceptance into the MPA program.
- 9. 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.
- 10. 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.
- 11. Students are allowed only 3 credits of pass/fail and 3 credits of workshop to count toward their MPA degree.
- 12. All students not officially accepted to the MPA program must get permission numbers from instructors to enroll in MPA classes.

### **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. 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.	
<b>Course Selection</b> Selection of courses is to be made in consultation with the student's academic advisor.	

Master of Public Administration (continued)	
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	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.         2. Environmental and Natural Resource Policy         and Administration:         PUBADM 540 Contemporary Issues in Natural         Resource and Environmental Policy and         Administration	12

- continued -

Master of Public Administration (continued)
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

3.

 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.

 TOTAL
 39

6

### **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.

### Graduate Certificate in Community and Regional Planning

**Director of Certificate Program:** Susan Mason Public Affairs and Art West Building, Room 126F 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 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.
- 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.

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. PUBADM 520 Introduction to Community and Regional Planning	9
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	6
TOTAL	15

### **Course Offerings**

### PUBADM—PUBLIC ADMINISTRATION

#### PUBADM 500 ADMINISTRATION IN THE PUBLIC SECTOR

**(3-0-3) (F,S).** Designed to introduce students to the broad field of public administration at the graduate level. The course surveys a number of important issues in contemporary public administration, including an emphasis on political, legal, economic and social institutions and processes.

#### PUBADM 501 PUBLIC POLICY PROCESS (3-0-3)(F/S).

Process of policy-making both within an agency and within the total governmental process, emphasizing policy and program planning, policy implementation and the value system of administrators.

### PUBADM 502 ORGANIZATIONAL THEORY (3-0-3)(F/S).

Theories of organization behavior and management, with special attention given to public sector organizations. Issues and problems related to the non-profit sector will also be addressed.

#### PUBADM 503 RESEARCH METHODS IN PUBLIC

**ADMINISTRATION (3-0-3) (F,S).** Introduction to quantitative and qualitative data analysis with an emphasis on using descriptive and inferential statistics as tools in both public policy analysis and public program analysis. The use of quantitative analysis to support management decision making is examined. Computers will be used in the analysis of quantitative data.

### PUBADM 504 PUBLIC BUDGETING AND FINANCIAL

ADMINISTRATION (3-0-3) (F/S). Determination of fiscal policy, budgeting processes, and governmental forms of budgeting. Consideration of fiscal policy and processes in various program areas. Emphasis on the interface between technical and political processes.

### PUBADM 505 PUBLIC PERSONNEL ADMINISTRATION

**(3-0-3) (F/S).** An examination of the personnel/human resource management role as it has evolved in the public sector. The multiple responsibilities of personnel managers in the public sector will be examined, and the link between public policy and personnel management will be identified.

### PUBADM 511 DECISION-MAKING IN PUBLIC AND

**NONPROFIT MANAGEMENT (3-0-3) (F/S).** Designed to introduce decision theory and optimization techniques and tools in public and nonprofit organizations to provide basic techniques related to planning, monitoring, managing, and measuring program performance.

#### PUBADM 520 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.

#### 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.

**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.

### **PUBADM 524 INTRODUCTION TO POLICY FORMATION: GEOGRAPHIC INFORMATION SYSTEMS (GIS) (3-0-3) (F/S).** Use computers and ArcGIS software to analyze public policy problems that have a geographic component. The course has three objectives: To

become familiar with ArcGIS, to learn about as well as how to utilize geographic data, and to perform spatial analysis.

#### PUBADM 530 ADMINISTRATIVE LAW AND REGULATION

(3-0-3) (F/S). Sources of power and duties of administrative agencies, rules and regulations made by agencies through investigation and hearings, judicial decisions and precedents relating to administrative activities.

**PUBADM 532 GRANT WRITING (3-0-3)(F/S).** Students will explore the skills and techniques associated with successful grant writing and will prepare a grant proposal.

#### PUBADM 540 CONTEMPORARY ISSUES IN NATURAL RESOURCE AND ENVIRONMENTAL POLICY AND A DMINISTRATION (3.0.3) (F(S)) Examinas current and toni

**ADMINISTRATION (3-0-3) (F/S).** Examines current and topical issues and controversies in natural resource and environmental policy from the perspective of public policy and public administration.

### PUBADM 541 ENVIRONMENTAL AND REGULATORY POLICY

AND ADMINISTRATION (3-0-3) (F/S). Examines aspects of environmental regulatory politics and policy. Topics examined include the politics of regulation, pollution and energy policy, and intergovernmental environmental management.

#### PUBADM 542 SCIENCE, DEMOCRACY AND THE

**ENVIRONMENT (3-0-3) (F/S).** Examines the role of science and scientists in the formation of U.S. environmental policy making. Special attention is given to the tension between elite and democratic forms of decision making.

PUBADM 543 PUBLIC LAND AND RESOURCE POLICY AND ADMINISTRATION (3-0-3) (F/S). Examines the major issues, actors, and policies affecting the public lands and resources of the United States. Special attention is paid to the processes, institutions, and organizations that influence how public land policy and resource policy is made.

PUBADM 550 THE EXECUTIVE AND THE ADMINISTRATIVE PROCESS (3-0-3) (F/S). This course covers the powers and responsibilities of elected and appointed executives in the public sector. Concepts examined in the class include leadership and management, executive roles, management theories and styles, relationships with the separate branches of government and other actors in the political environment. The unique position of the executive between politics and administration and the relevant activities in policy formation through implementation form the basis of discussion.

#### PUBADM 560 STATE AND LOCAL GOVERNMENT POLICY AND ADMINISTRATION (3-0-3) (F,S). This course examines state and local government administration in a political and organizational context and the attendant interunit, intersector, and interjurisdictional cooperation and conflict in policy administration. Attention is paid to management in a federal system with a focus on nation-state-local relations.

#### PUBADM 570 PUBLIC MANAGEMENT SKILLS AND

**TECHNIQUES (3-0-3) (F/S).** This course addresses such knowledge and skills for managers and leaders in public organizations as: personal assessment; leading and managing others; aspects of self and others which underlie behavior; managing stress and time; decision making; public participation; working with elected and appointed public officials; working with the media; solving problems; communicating supportively and assertively; appropriately using power and influence; understanding motivational processes; managing conflicts; empowering and delegating; and building teams.

**PUBADM 571 ETHICS IN THE PUBLIC SECTOR (3-0-3) (F/S).** Examination of ethical dilemmas facing civil servants and elected officials utilizing case studies, current ethics statutes, and approaches in the public administration literature to the subject.

### College of Social Sciences and Public Affairs Department of Public Policy and Administration

**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 TECHNIOUES

PUBADM 584 STATE AND LOCAL GOVERNMENT POLICY AND ADMINISTRATION

PUBADM 585 INTERGOVERNMENTAL RELATIONS PUBADM 586 COMMUNITY AND REGIONAL PLANNING

PUBADM 590 PUBLIC SERVICE INTERNSHIP (Variable credit).

PUBADM 595 READING AND CONFERENCE (1-4 credits). PUBADM 597 SPECIAL TOPICS (1-3 credits).

PUBADM 599 CONFERENCE OR WORKSHOP (1 credit).

PUBADM 600 ASSESSMENT [Comprehensive Examination] (3-0-3) (F/S).

PUBADM 696 DIRECTED RESEARCH (3-6 credits).

### Graduate Certificate in Conflict Management

**Graduate Program Director:** Suzanne McCorkle Public Affairs and Arts West, Room 123F 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.

### **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**

### Graduate Certificate in Conflict Management Generalist Option

<b>_</b>	
Course Number and Title	Credit
*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 597, 594, or other approved electives	4
TOTAL	12
*Candidates who have already completed DISPLIT 400 or other eq	uivalent

<sup>c</sup>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	Credit
*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 597, 594, or other approved electives	2
TOTAL	12
*Candidates who have already completed DISPUT 400 or other	

\*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**

### **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.

# **School of Social Work**

### Director: Roy Rodenhiser

Education Building, Room 716 Telephone 208 426-1568 FAX 208 426-4291 http://www.boisestate.edu/socwork

**Graduate Faculty:** Robin Allen, Gretchen Cotrell, Daniel Harkness, Denice Goodrich Liley, Will Rainford, Cynthia Sanders

Adjunct Graduate Faculty: Lawrence Cronin, James Knapp, Sue Martin

### Graduate Degree Offered

- Master of Social Work Two Year Program
- Master of Social Work Advanced Standing
- Graduate Certificate in Gerontological Studies

### **Master of Social Work**

**Graduate Program Coordinator:** Will Rainford Education Building, Room 716 Telephone 208 426-4044 e-mail: willrainford@boisestate.edu

### **General Information**

The Master of Social Work (MSW) is a two-year full-time graduate program, accredited by the Council on Social Work Education (reaffirmed in 1999). The program is designed to prepare students for advanced social work practice with individuals and families. Students learn clinical, organizational, policy, and administrative skills necessary for promoting social justice and equality, and enhancing the quality of life for all people. The program provides a broad and in-depth knowledge base in order to prepare students for advanced social work practice in a wide array of settings.

### **Application and Admission Requirements**

Applications for both programs (two year and advanced standing) are available online at www.boisestate.edu/ socwork. Applications for both programs are processed and reviewed starting January 1 on a continuous basis until program enrollment limits are met. Closing date for admission into the two year program is August 1. Closing date for

advanced standing is June 15. Enrollment in both programs is limited and the admission process is very competitive. Early application is strongly advised. When enrollment capacities are filled, a waiting list of qualified applicants is started. As seats become available, qualified applicants on the wait list are notified of program availability and offered admission into the program. Accepted applicants must reserve their seat in the class. Factors such as education (GPA and continuing education courses), social work experience (paid and/or voluntary), personal information, and diversity are considered in the admission decision. Criteria for admission into the MSW program:

- 1. Completion of the Boise State University Graduate Admissions Application and The School of Social Work Application for admission as a graduate student.
- 2. A bachelor's degree from an accredited college or university with a distribution of liberal arts courses (70 quarter credits or 46 semester credits) and a minimum of 10 quarter credits or 6 semester credits in each of the general distribution areas: humanities, social sciences, and natural sciences/mathematics. Applicants must complete coursework with a minimum of a C letter grade in a math or research course which contains content on descriptive and inferential statistics. Applicants must also be able to demonstrate in their completed curriculum that they possess fundamental understanding of the biological basis of human behavior.
- 3. An overall undergraduate grade point average (GPA) of 3.0 or higher and a GPA of 3.0 or higher for the junior and senior years of undergraduate study.

Note: Applicants may not receive academic credit for work experience in the field or for life experience.

The Master of Social Work Program has one concentration: Advanced direct practice with individuals and families. Students in the two year program must complete a total of 63 credits including 18 credits in Field Work. Students in the Advanced Standing program complete 31 credits with 12 credits in Field Work.

Note: Students may receive certification to practice school social work in the State of Idaho by completing SOCWRK 597 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 of	and Title	Credits
Year One–Foundation		32
SOCWRK 502 Foundation of	Social Welfare and	
Social Work: History a	nd Philosophy	
SOCWRK 503 Foundation Sc	ocial Work Practice I:	
Individuals	3	
SOCWRK 504 Foundation So	ocial Work Practice II:	
Families and Groups	3	
SOCWRK 505 Foundation of	Social	
Welfare Policy	3	
SOCWRK 512 Human Develo	opment Through the	
Life Cycle	3	
SOCWRK 514 Ethnicity, Geno	ler and Class 1	
SOCWRK 515 Foundation So	cial Work Practice III:	
Organizations and Co	mmunities3	
SOCWRK 521 Social Dimens	ions of Human	
Behavior		
SOCWRK 530 Foundation of	Research I2	
SOCWRK 531 Foundation of	Research II 2	
SOCWRK 570 Field Work		
Year Two—Advanced		31
SOCWRK 506 Advanced Pol	icy and Legislation.	
	es3	
SOCWRK 525 Advanced Clin		
	es	
SOCWRK 526 Mental Disord		
SOCWRK 532 Advanced Res		
SOCWRK 550 Advanced Inte		
SOCWRK 575 Advanced Pra		
SOCWRK 576 Advanced Pra		
*Two electives (2 credits each		
		69
TOTAL		63
*Specialization Electives (2 cre	dits each)	
Selected Topics		
(Elective options will vary from		nclude
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 Co	lor	
Note: Curriculum Guidelines establi Education are available in the Schoo	shed by the Council on Socia of of Social Work office.	al Work

### College of Social Sciences and Public Affairs School of Social Work



Master of Social Work Advanced Standing	
Course Number and Title	Credits
<ul> <li>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.</li> <li>Criteria for admission for Advanced Standing study in the MSW program are: <ol> <li>Graduation from a CSWE Accredited Baccalaureate Social Work Program.</li> <li>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.</li> <li>This degree must have been completed within five years of the applicant's planned entry into Boise State University's MSW program <b>OR</b> within seven years if the applicant has substantial paid social work experience.</li> <li>All other requirements equivalent to regular admissions.</li> </ol> </li> </ul>	
experience in the field. TOTAL	31

# Graduate Certificate in Gerontological Studies

(See Section on Interdisciplinary Programs)

### **Course Offerings**

SOCWRK-SOCIAL WORK

SOCWRK 502 FOUNDATION OF SOCIAL WELFARE AND SOCIAL WORK: HISTORY AND PHILOSOPHY (3-0-3) (F). The major purpose of this course is to place the profession of Social Work within historical context. The course explores the development of social welfare institutions and the Social Work profession in the United States from its European roots, emphasizing social welfare issues and social policy and programmatic responses. This course also examines the impact of human diversity on socioeconomic and political statuses and access to social welfare resources and social work services. PREREQ: Admission to MSW Program.

**SOCWRK 503 FOUNDATION SOCIAL WORK PRACTICE I: INDIVIDUALS (3-0-3) (F).** This is the first practice course within the foundation year of the MSW program. Practice I introduces students to knowledge and skills for generalist practice with individuals. Students practice key skills that include engagement, interviewing, assessment, contracting, intervention, recording, and the use of consultation and supervision in the context of social work values and ethics and affirming working relationships. PREREQ: Admission to MSW Program. PREREQ/COREQ: SOCWRK 512; SOCWRK 570.

**SOCWRK 504 FOUNDATION SOCIAL WORK PRACTICE II: FAMILIES AND GROUPS (3-0-3) (S).** This is the second generalist practice course within the three course practice sequence in the foundation year. This course builds on the foundational skills gained through successful completion of Practice I. Practice II introduces the student to theories and skills required for social work practice with diverse families and groups including assessing, building upon strengths and resources within all client systems, social work values and ethics, and delivering empirically based interventions to small groups and families. PREREQ: SOCWRK 503. PREREQ/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 HUMAN DEVELOPMENT THROUGH THE LIFE

**CYCLE (3-0-3) (F).** Theories of human development, life stage, and subordinate group oppression will be the focus of this course. In particular, psychodynamic and cognitive humanist theories will be examined, as well as current theories of the psychologies of women and people of color. The interrelationships of sociohistorical, sociocultural, socioeconomic, interpersonal, and psychological influences on human development will be explored, with an emphasis on factors of gender, affectional orientation, ethnicity, race, and class. PREREQ: Admission to 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. PREREQ/COREQ: SOCWRK 504; SOCWRK 521; SOCWRK 572.

#### SOCWRK 521 SOCIAL DIMENSIONS OF HUMAN BEHAVIOR

**(3-0-3) (S,SU).** This course explores the impact of social systems on human behavior, in terms of sociopolitical and sociocultural forces, from an ecological systems perspective. Knowledge on the ways in which systems promote or deter the maintaining or achieving of well-being and optimal health is provided. Particular emphasis is given to the effects of prejudice and discrimination on individuals and groups, based on their particular race, ethnicity, gender, affectional orientations, class, or other stigmatizing characteristics. There is a special emphasis on working with the Hispanic/Latino population. PREREQ: SOCWRK 512 or admission to Advanced Standing MSW Program.

### SOCWRK 525 ADVANCED CLINICAL PRACTICE WITH

**INDIVIDUALS AND FAMILIES (3-0-3) (S).** The primary focus of this course is the understanding of children from a developmental perspective within the context of the family and the expanding social environment. In addition to developmental and systems theory, psychodynamic, behavioral, cognitive, structural, and current models of family therapy are examined. Understanding of assessment includes consideration of health as well as unhealthy responses and a strengths-based perspective is encouraged. Students are expected to address ethical issues in working with families and children. PREREQ: Admission to MSW Program.

**SOCWRK 526 MENTAL DISORDERS (3-0-3) (F/S).** This course prepares students to conduct systematic biopsychosocial assessments, formulate differential diagnoses in accordance with the Diagnostic and Statistical Manual of Mental Disorders, and recommend treatment plans informed by the state-of-the-art. Championing the development of robust helping relationships that empower consumers by building on strengths, students are taught to monitor their practice for bias related to affectional orientation, disability, ethnicity, gender and race. PREREQ: Admission to MSW Program.

**SOCWRK 530 FOUNDATION 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, use of results, and ethical considerations including how research affects diverse populations. PREREQ: Admission to MSW Program.

#### SOCWRK 531 FOUNDATION 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 data collection, 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

### College of Social Sciences and Public Affairs School of Social Work

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: Foundations of Research I and II or admission to Advanced Standing MSW Program. COREQ: Advanced Practicum III.

#### 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 Program or SOCWRK 503, SOCWRK 504, and SOCWRK 515. COREQ: SOCWRK 575.

**SOCWRK 570 FIELD WORK (0-20-6) (S).** This internship provides students with a supervised social work practice experience in a community social service agency. It includes experiential learning in foundation social work practice skills as well as opportunities to work with diverse populations. The internship requires 20 clock hours per week in the agency setting. Students are expected to abide by The Code of Ethics of the National Association of Social Workers in their practice with clients and agencies. Grade Policy: Students receive a Pass/Fail in the internship. PREREQ: SOCWRK 503 or admission to Advanced Standing MSW 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 575 ADVANCED SOCIAL WORK PRACTICUM I

**(0-20-6) (F).** This internship provides students with a supervised social work practice experience in a community social service agency. It includes experiential learning in advanced social work practice skills in a specialized setting. Experience with client groups will reflect racial, ethnic, cultural and gender diversity. The internship requires 20 clock hours per week in the agency setting. Students are expected to abide by The Code of Ethics of the National Association of Social Workers in their practice with clients and agencies. Grade Policy: Students receive a Pass/Fail in the internship. PREREQ: SOCWRK 570 or admission to Advanced Standing MSW Program.

#### SOCWRK 576 ADVANCED SOCIAL WORK PRACTICUM II

**(0-20-6) (S).** This internship provides students with a continued supervised social work practice experience in a community social service agency. It includes experiential learning in advanced social work practice skills in a specialized setting. Experience with client groups will reflect racial, ethnic, cultural and gender diversity. The internship requires 20 clock hours per week in the agency setting. Students are expected to abide by The Code of Ethics of the National Association of Social Workers in their practice with clients and agencies. Grade Policy: Students receive a Pass/Fail in the internship. PREREQ: Admission to MSW Program, SOCWRK 575.

#### **SELECTED TOPICS:**

SOCWRK 580 SOCIAL WORK WITH DIVERSE POPULATIONS.

SOCWRK 581 SOCIAL WORK WITH FAMILIES. SOCWRK 582 SOCIAL WORK WITH THE ELDERLY. SOCWRK 583 SOCIAL WORK WITH SPECIAL NEEDS POPULATIONS.

SOCWRK 584 SOCIAL WORK WITH CHILDREN AND YOUTH.

SOCWRK 585 ADVANCED SOCIAL WORK PRACTICE WITH ORGANIZATIONS AND COMMUNITIES. SOCWRK 586 SOCIAL WORK WITH GROUPS.

- SOCWAR 580 SOCIAL WORK WITH GROUPS.
- SOCWRK 594 CONFERENCE OR WORKSHOP.

SOCWRK 595 READINGS AND CONFERENCE.

SOCWRK 596 INDEPENDENT STUDY.

SOCWRK 597 SPECIAL TOPICS.

SOCWRK 696 DIRECTED RESEARCH.

# 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:** James McNamara Math/Geosciences Building, Room 225 Telephone 208 426-1581 FAX 208 426-4061 e-mail: jmcnamar@boisestate.edu http://earth.boisestate.edu

### **Department of Biological Sciences**

**Contact:** Kevin Feris Science/Nursing Building, Room 226 Telephone 208 426-5498 FAX 208 426-1040 e-mail: kevinferis@boisestate.edu http://www.boisestate.edu/biology/

### College of Engineering Department of Civil Engineering

**Contact:** Molly Gribb Engineering Technology Building, Room 201C Telephone 208 426-3764 FAX 208 426-4800 e-mail: mgribb@boisestate.edu http://coen.boisestate.edu

**Graduate Faculty:** Warren Barrash, Shawn Benner, Paul Dawson, Kevin Feris, Molly Gribb, Jodi Mead, James McNamara, 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**

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,

### Interdisciplinary Programs Master of Science in Hydrologic Science

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 Science	
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 Science Core (2 of the following 3 courses) GEOS 512 or CE 512 Hydrogeology	6
Electives Approved by the Supervisory Committee	17
<b>Culminating Activity</b> GEOS 593 or CE 593 Thesis (P/F)	6
TOTAL	30

### **Course Offerings**

GEOS – GEOSCIENCE

### GEOS 511 ADVANCED ENVIRONMENTAL GEOLOGY

**(3-0-3) (S).** Land-use planning, techniques for investigation of surficial materials and water resources. Geologic hazards, surficial deposits and their engineering and hydrologic properties, ground and surface water, waste disposal. Term reports required, field trips required. PREREQ: GEOS 221 or PHYS 220.

**GEOS 512 HYDROGEOLOGY (CE 512) (3-0-3) (F).** The study of subsurface water and its relationship to surface water, the hydrologic cycle, and the physical properties of aquifer systems. Flow nets and flow 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) (S).

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

**GEOS 517 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 530 (CE 530) VADOSE ZONE HYDROLOGY

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

### GEOS 533 (CE 533) CONTAMINANT TRANSPORT (3-0-3)(S).

The fate and transport of dissolved solutes and non-aqueous phase liquids in groundwater systems. Students will analyze field data and develop conceptual models for contaminated sites. The role of engineers and hydrologists in environmental litigation will be addressed through case studies. Course may be taken for either Geology or Civil Engineering credit, but not both. PREREQ: CE 412, or CE 512, or GEOS 412, or GEOS 512, or PERM/INST.

#### GEOS 570 (GEOG 570) EARTH SYSTEM SCIENCE AND GLOBAL WARMING (3-0-3) (F/S). Survey of interactions among

physical biogeochemical processes involved in climate and climate 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. Course may be taken for either Geology, Geophysics, or Civil Engineering credit, but not for credit in 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 are geologic context, boundary condition, analytical and numerical solution techniques, measurement methods, applications to engineering and environmental problems. Course may be taken for either Geology, Geophysics, or Civil Engineering credit, but not for credit in more than one department. PREREQ: GEOPH 623 or GEOS 623 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 655 COUPLED BIOGEOCHEMICAL KINETICS AND TRANSPORT (3-0-3) (F/S). A detailed investigation of the smaller scale (kilometer to micrometer) flow of elements and water through coupled physical, chemical and biological processes, with an emphasis on the interplay of mass and energy transfer rates and biogeochemical kinetic constraints. PREREQ: PERM/INST.

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

### Master of Arts in Interdisciplinary Studies

### Master of Science in Interdisciplinary Studies

### **Director: Daryl Jones**

College of Arts and Sciences Education Building, Room 601 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.

### Interdisciplinary Programs Master of Arts or Science in Interdisciplinary Studies

- 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.

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#### Master of Arts or Master of Science in Interdisciplinary Studies (continued)

- 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 directed research (596) may be included in the program.
- 6. Courses may not be challenged for credit.
- 7. The degree will consist of a total of no less than 33 credits, of which no more than 16 credits may be earned in the College of Business. Students may select (with IDS Committee approval) from a thesis/project option or a written examination option. The thesis/project will carry 6 credits. Under either option, the student will be required to draw critically upon the two or more disciplines studied and to integrate disciplinary insights.
- 8. Students completing the thesis/project option will, upon completion of that option, meet with their 3-person graduate committee for a final review of the thesis or project.
- 9. Students completing the examination option will take a written examination prepared by their 3-person graduate committee, with whom they will subsequently meet for a review of results.
- 10. Minor revisions to the plan of study may be approved by the Director of Interdisciplinary Studies upon the recommendation of the student's graduate advisor; major changes must be approved by the university-wide IDS Committee.
- 11. All work toward the MA/MS degree in Interdisciplinary Studies must be completed within a period of seven years.

### Course Offerings

### INTDIS-INTERDISCIPLINARY STUDIES

**INTDIS 591 PROJECT (0-V-6).** Students are expected to draw critically upon the two or more disciplines 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 Coordinator: Darryl Butt

Engineering and Technology Building, Room 240 C Telephone 208 426-1054 FAX 208 426-2470 e-mail: darrylbutt@boisestate.edu

### Engineering Graduate Faculty: Darryl Butt,

Kris Campbell, Sean M. Donovan, Megan Frary, Janet Callahan, William Knowlton, Amy Moll, Peter Mullner, Rick Ubic

**Physics Graduate Faculty:** Charles Hanna, Byung-Il Kim, Alex Punnoose, Dmitri Tenne

**Chemistry and Biochemistry Graduate Faculty:** Jeff Peloquin, Dale Russell, Martin Schimpf, Don Warner

**Biological Sciences Graduate Faculty:** Julia Thom Oxford

### **General Information**

The Department of Materials Science and Engineering offers two distinct graduate degree programs. The program leading to the Master of Science in Materials Science and Engineering (M.S. MSE) is a thesis-based program designed to prepare students for research and development and further study at the doctoral level. The program leading to the Master of Engineering in Materials Science and Engineering (M.Engr. MSE) is a non-thesis program with a focus on professional development. Both programs are interdisciplinary and involve faculty members from the College of Engineering and the College of Arts and Sciences with expertise in electrical engineering, mechanical engineering, physics, chemistry, and biology.

# Admission Requirements and Application Procedures

**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	13
MSE 505 Bonding and Structure of Materials 3	
MSE 508 Solid State Thermodynamics and	
Kinetics	
PHYS 515 Solid State Physics 3	
PHYS 523 Physical Methods of Materials	
Characterization3	

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### Interdisciplinary Programs Master of Science in Materials Science and Engineering

Master of Science in Materials Science and Engineering (continued)	
Other Graduate Courses	11
Graduate courses in materials science and	
engineering or related field; all courses to be	
selected with student input and approved by the	
supervisory committee.	
Thesis	6
MSE 593 Thesis <b>OR</b>	
PHYS 593 Thesis <b>OR</b>	
CHEM 593 Thesis (P/F)	
TOTAL	30

### Master of Engineering in Materials Science and Engineering

**College of Engineering Department of Materials Science and Engineering Graduate Program Coordinator:** Darryl Butt Engineering and Technology Building, Room 240 C

Telephone 208 426-1054 FAX 208 426-2470 e-mail: darrylbutt@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	13
MSE 505 Bonding and Structure of Materials3	
MSE 508 Solid State Thermodynamics and	
Kinetics4	
PHYS 515 Solid State Physics3	
PHYS 523 Physical Methods of Materials	
Characterization3	
Other Graduate Courses	17
Graduate courses in materials science and	
engineering or related field; all courses to be	
selected with student input and approved by the	
supervisory committee.	
Comprehensive Examination	1
MSE 600 Assessment (P/F)	
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**

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

#### CHEM—CHEMISTRY

#### CHEM 501 ADVANCED INORGANIC CHEMISTRY (3-0-3)

**(F).** Atomic structure, molecular structure using valence bond and molecular orbital theories, elementary group theory, transition metal coordination chemistry, acids and bases, descriptive transition and nontransition metal chemistry. PREREQ: CHEM 322 or PERM/INST.

### ECE-ELECTRICAL AND COMPUTER ENGINEERING

ECE 540 INTRO TO INTEGRATED CIRCUIT AND MEMS PROCESSING (3-0-3) (F). Fundamentals of integrated circuit and micro electromechanical systems (MEMS) fabrication technology; semiconductor substrates; theory of unit processes such as diffusion, oxidation, ion implantation, rapid thermal processing, photolithography, wet etching and cleaning, dry etching, thin-film deposition; chemical mechanical polishing; process integration; metrology; statistical process control; TCAD. COREQ: ECE 540L. PREREQ: ECE 323 or PERM/INST.

ECE 540L INTRO TO INTEGRATED CIRCUIT AND MEMS PROCESSING LAB (0-3-1)(F). Semiconductor cleanroom practices; heavy lab safety; students will fabricate and test simple structures in lab; application of TCAD to practical problems. COREQ: ECE 540.

ECE 542 PHOTOLITHOGRAPHY (3-0-3) (F/S). Principles of optics, diffraction, interference, superposition of waves, imaging systems, fundamentals of 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 AND

**KINETICS (4-0-4)(S).** The laws of thermodynamics are applied to multicomponent, multiphase reacting systems, and electrochemical systems. These concepts are used to discuss equilibrium phase

diagrams. The energy effects due to the geometry of solid surfaces are discussed in regards to capillarity effects. The field of kinetics is introduced using applications of thermodynamics to mass transport (e.g., diffusion and drift) and chemical reaction kinetics. Differential equations describing coupled diffusion and reaction kinetics are examined. PREREQ: MATH 333, CHEM 322 or ENGR 320 or PHYS 432.

### MSE 510 ELECTRICAL, OPTICAL, AND MAGNETIC

**PROPERTIES OF MATERIALS (3-0-3) (F/S).** Introduction to the physical principles underlying the electric, optical and magnetic properties of modern solids. Crystalline and energy band structure of materials, thermal properties and electrical conduction in semiconductors and metals, optical and magnetic properties of solids are covered. PREREQ: ENGR 245.

#### MSE 511 SEMICONDUCTOR MATERIALS (3-0-3)(F/S).

Examination of the physical properties of semiconductors including electronic structure, free carrier statistics, optical properties, crystallography, and defects. Study of thermodynamic properties as related to lattice vibrations and diffusion. PREREQ: ENGR 245.

#### MSE 512 MECHANICAL PROPERTIES OF MATERIALS (3-0-3)

**(F/S).** Study of deformation and fracture in engineering materials, including elastic and plastic deformations; dislocation theory; alloy hardening and creep deformation; fracture mechanisms; linear elastic and nonlinear elastic fracture mechanics; toughening of metals, ceramics, and composites; environmentally assisted failure. PREREQ: ENGR 245.

#### **MSE 518 PHASE TRANSFORMATIONS AND KINETICS**

**(3-0-3) (F).** Kinetics of phase transformations, nucleation, crystallization, decomposition, chemical reactions, and atomic and molecular diffusion. Surface and interface phenomenon, nanoparticle-matrix interactions, sintering, grain growth, recovery and recrystallization. PREREQ: MSE 308 or MSE 508.

#### **MSE 521 INTRODUCTION TO ELECTRON MICROSCOPY**

(2-2-3)(S). Theory and practice of scanning electron microscopy (SEM) and transmission electron microscopy (TEM), including electron optics, contrast mechanisms, diffraction theory, chemical analysis techniques, and sample preparation. Some understanding of crystallography is recommended. Applications of SEM and TEM in materials science and engineering will be covered. PREREQ: MSE 305 or MSE 505.

#### MSE 522 ADVANCED TRANSMISSION ELECTRON

**MICROSCOPY (1-3-2) (F).** In-depth understanding of the transmission electron microscope (TEM), electron diffraction, imaging techniques, analytical techniques, and high-resolution electron microscopy (HREM). Students are required to have an approved project that utilizes the TEM. PREREQ: MSE 421 or MSE 521.

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 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 permission of instructor.

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.

# Graduate Certificate in Addiction Studies

### **College of Education**

Department of Counselor Education Contact: Ken Coll Education Building, Room 614 Telephone 208 426-1821 e-mail: kcoll@boisestate.edu

### College of Health Sciences Master of Health Science Program Graduate Program Coordinator: Theodore McDonald

Health Science Riverside, Room 122 Telephone 208 426-2452 e-mail: tmcdonal@boisestate.edu http://hs.boisestate.edu/MHS

### **General Information**

The Graduate Certificate in Addiction Studies is an **interdisciplinary program** offered by the Department of Counselor Education (College of Education), and the Master of Health Science Program (College of Health Sciences). The **postgraduate certificate** is designed for professionals employed in substance abuse education, prevention or intervention settings. The goal of the certificate program is to prepare students for a variety of positions in the addiction field. The graduate certificate meets the didactic experiences required to become a nationally credentialed Master Addictions Counselor (MAC if holding a Master's in Counseling), and an Idaho Certificate Alcohol and Drug Counselor (ACADC) 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 in Chemical Dependency or its equivalent, and must have achieved a cumulative undergraduate GPA of at least 3.00 on a 4.00 scale. However, these minimum requirements do not guarantee admission to the program. Admission recommendations will be based upon a review of the student's transcripts and resume, letters of reference, Statement of Purpose, and interview. **Application Procedures** An applicant should follow the general application procedures for graduate degree-seeking students (see Applying as a Degree-Seeking Student in the Graduate Admission Policies and Procedures section of this catalog). In addition, an applicant must submit the following documents to the Graduate Certificate Program Advisor in either the College of Health Sciences or College of Education:

- 1. a resume;
- 2. a statement of purpose in which the student explains his/her motivation for pursuing a Graduate Certificate in Addiction Studies and describes his/her career interests; and
- 3. three letters of reference from previous professors evaluating the applicant's academic potential. (For applicants whose academic record predates the application by five years or more, supervisors may submit the letters of reference. For applicants who applied for a graduate program within 3 years, those references can be used.)

Once the applicant's file is complete, the Addiction Studies Graduate Certificate Committee will evaluate, interview, and an admission recommendation (regular, provisional, or denial) will be forwarded to the Program Directors (Chairs) of the Counselor Education and Master of Health Science Program. In the case of a recommendation for provisional admission, the Committee will also establish the stipulations that must be satisfied by the student to advance to regular status. Admission to the Certificate in Addiction Studies does not guarantee subsequent admission to any other certificate or graduate degree programs.

### **Certificate Requirements**

A minimum of 18 credits is required for completion of the Graduate Certificate in Addiction Studies.

Prerequisite for the certificate program is COUN 545/ MHLTHSCI 545 Foundations in 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

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#### Graduate Certificate in Addiction Studies (continued)

A minimum of 9 credits from the following:	9
COUN 543/MHLTHSCI 543 Assessing and Managing	
Adolescent Substance Abuse and Mental	
Health Risks3	
COUN 547/MHLTHSCI 547 Chemical Addictions	
and Violence Prevention3	
COUN 550/MHLTHSCI 568 Diagnosis, Assessment	
and Treatment Planning2	
COUN 567/MHLTHSCI 567 Clinical Supervision	
Principles and Practice1	
HLTHST 469 Ethics for Addiction Professionals OR	
COUN 508 Special Needs, Ethics, and Legal	
Issues in Counseling2-3	
MHLTHSCI 548 Counseling Techniques for Health	
Professionals <b>OR</b>	
COUN 502 Counseling Theories & Application3	
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**

#### 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) (F) (Even 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)(S). 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) (Odd years). 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).** 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 614 Education 208, 426, 3204

### Telephone 208 426-3204 e-mail: bbirdsa@boisestate.edu

### College of Health Sciences Master of Health Science Program

**Graduate Program Coordinator:** Theodore McDonald Health Science Riverside Building, Room 104 Telephone 208-426-2217 e-mail: tmcdonal@boisestate.edu http://hs.boisestate.edu/MHS

### College of Social Sciences and Public Affairs School of Social Work

**Contact:** Denice Liley Education Building, Room 716 Telephone 208 426-4395 e-mail: dliley@boisestate.edu

### **General Information**

The Graduate Certificate in Gerontological Studies is an interdisciplinary program offered by the College of Education, Master of Arts in School Counseling (MASC) and Department of Kinesiology, College of Health Sciences, Master of Health Science Program (MHS), and College of Social Science and Public Affairs, Master of Social Work (MSW). The certificate program is administered by the Graduate Coordinators from the MASC, MHS, and MSW programs in conjunction with the Center for Study of Aging.

The postgraduate certificate is intended for students enrolled in any graduate degree program and for local professionals. The goal of the certificate program is to enable students to choose a unified, coherent group of courses in gerontological studies and related fields that improve their understanding of issues related to aging. The program curriculum is in compliance with the Core Principles and Outcomes of the Association for Gerontology in Higher Education.

### **Admission Requirements**

The minimum requirements of admission to the certificate program are a baccalaureate degree from a regionally accredited college or university and admission to the Graduate College. In addition, admission will be based upon a review of the student's transcripts, resume and letter of interest summarizing his or her background and motivation for enrolling in the certificate program.

Admission to the Graduate Certificate in Gerontological Studies does not guarantee subsequent admission to any other certificate or graduate degree programs.

### **Application Procedures**

An applicant should follow the general application procedures of the Graduate College for admission into a graduate program. The applicant must also submit a letter of interest and resume to the MASC, MHS or MSW Graduate Coordinator. Once the applicant's file is complete, it will be reviewed by the Gerontological Studies Admissions Committee members who will provide an admission recommendation to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant.

### **Certificate Requirements**

A minimum of 18 credits (9 credits of core and 9 credits from a concentration area) is required or the completion of the Graduate Certificate in Gerontological Studies.

Students who wish to enroll in courses other than those specified may do so by permission of Coordinator. Course prerequisites or permission of the instructor must also be met.

Graduate Certificate in Gerontological Studies	
Course Number and Title	Credits
Required Core Courses: COUN/MHLTHSCI/SOCWRK 571 Fundamentals of Healthy Aging	9
(select one area of concentration)	
Counseling Concentration         COUN 517 Family Issues in Later Life         COUN 518 Counseling Issues with Older Adults 3         COUN 550 Diagnosis, Assessment and         Treatment Planning         COUN 551 Psychopharmacology with Older         Adults       1	9
Health Science Concentration         HLTHST 410 Health and Aging	9
Social Perspectives Concentration SOC 511 The Sociology of Age Group Stratification	9
Health Promotion/Exercise Science         Concentration         BIOL 300 Biology of Aging	9
TOTAL	18

# **Division of Extended Studies**

### **Dean: Mark Wheeler**

### Assistant Dean: Kenneth Brauchle

1015 Grant Avenue Telephone 208 426-1709 FAX 208 426-3467 e-mail: ESTellUs@boisestate.edu http://www.boisestate.edu/extendedstudies

The Division of Extended Studies brings the educational resources of Boise State University to diverse populations in its service area and beyond with programs and services delivered via alternative formats, locations, and technologies. Responsive and enterprising, Extended Studies partners with the University's seven academic colleges to extend access to academic, professional development and personal enrichment opportunities.

### **Graduate Programs**

The Division of Extended Studies provides administrative support for the following graduate programs:

### **Offered Online**

- Master of Educational Technology
- Master of Science in Educational Technology
- Master of Science in Instructional & Performance Technology
- Master of Nursing (selected courses)
- Master of Science in Nursing (selected courses)
- Graduate Certificate in Human Performance Technology
- Graduate Certificate in Online Teaching
- Graduate Certificate in School Technology Coordination
- Graduate Certificate in Technology Integration

### **Offered Off-Campus**

- Master of Education, Bilingual Education
- Master of Education, English as a Second Language
- Master of Arts in Education, Reading
- Master of Social Work, Northern Idaho and Magic Valley Advanced Standing Programs
- Master of Social Work, Northern Idaho and Magic Valley, Full Programs
- Graduate Certificate in Conflict Management
- Boise State University Writing Project

### **General Information**

Programs supported administratively by Extended Studies include off-campus sites, some graduate programs, distance education, summer program, Boise State AfterWork, specialized certificate programs, study tours, professional education for teachers, graduate preparation courses, Osher Lifelong Learning Institute and Center for Professional Development, which offers university-wide noncredit programming to serve the needs of area business, industry, and government.

### **Off-Campus Sites and Graduate Programs**

The Division of Extended Studies provides administrative support for a wide range of academic courses and graduate programs at locations off the main campus. Advising, registration, book sales, and library services are available at most off-campus sites, and many locations serve as receiving sites for Knowledge Network, a series of interactive, televised classes broadcast from the Boise campus. The off-campus locations are:

### **Boise State University Canyon County Center**

2407 Caldwell Boulevard, Nampa ID 83651 208 562-2100

### **Boise State West Campus**

5500 E. University Way, Nampa, ID 83687 208 562-3100

### Coeur d'Alene MSW Program

LCSC Coeur d'Alene 1000 W. Hubbard Ave. Suite 144, Coeur d'Alene, ID 83814 208 292-2679

### **Gowen Field**

Harvard Street, Building #521, Gowen Field, Boise, ID 83705 208 272-3758 or 208 426-3492

#### Lewiston MSW Program

LCSC Campus, Social Work Department 500 8th Ave., Lewiston, ID 83501 208 792-2783

#### **Mountain Home Air Force Base**

665 Falcon, Mountain Home Air Force Base, ID 83648 208 828-6746 or 208 426-3492

### Twin Falls

Taylor Administration Building College of Southern Idaho Campus 208 736-2161

The following discussion gives a brief overview of graduate programs offered at various sites:

**Master of Arts in Education, Reading** 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 at the West Campus in Nampa. The program is designed to be completed in two years, including summer. Information: 208 426-3962 or http://education.boisestate.edu/literacy/ MA\_Litdegree.htm. Master of Education, Bilingual Education or English as a Second Language This program is designed for teachers who work with or are preparing to work with English language learners. Classes meet at CSI in Twin Falls or at West Campus in Nampa, in a condensed format, Friday evening and all day Saturday. Each 3-credit class meets for three weekends. The program is designed to be completed in two years, including summer. Information: 208 426-4077 or http://education.boisestate. edu/bilingual-esl/graduate.htm.

Master of Social Work (MSW) Advanced Standing Program This 36-credit program is designed for students with a BSW degree. The department anticipates cohorts beginning in Fall 2008 in Northern Idaho and the Magic Valley. Classes meet evenings and weekends to fit the needs of working professionals. Information: 208 292-2679 or http://www.boisestate.edu/socwrk/academics/msw\_ni/

**Master of Social Work (MSW) Full Program** This 61-credit program is designed for students with a bachelor's degree in a field other than social work. The department anticipates cohorts beginning in Fall 2008 in Northern Idaho and the Magic Valley. Classes meet evenings and weekends to fit the needs of working professionals. Information: 208 292-2679 or http://www. boisestate.edu/socwrk/academics/msw\_ni/

**Graduate Certificate in Conflict Management** This 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. Information: 208 426-3928 or http://ppa.boisestate.edu/mediation/cm-certificate.shtml.

**Boise State University Writing Project** The Boise State Writing Project (BSWP), a member of the National Writing Project network, began on the Boise State campus in the summer of 2005. The network consists of over 250 international sites and includes an international corps of teachers and teacher leaders. The BSWP is working to bring high-quality professional development programs to the teachers of Southern Idaho. Information: 208 426-1199 or http://english.boisestate.edu/bswp/.

### **Distance Education Programs and Classes**

Boise State University offers some graduate programs and classes through distance education methods such as the internet and computer-based multimedia. For more information, call 208 426-1709.

Several master's degrees and graduate certificate programs are offered online as described below:

Master of Science in Instructional & Performance Technology (Online Option): The Master of Science in Instructional & Performance Technology (IPT) degree and the Graduate Certificate in Human Performance Technology (HPT) are intended to prepare students for careers in the areas of instructional design, performance technology, training and training management, workplace e-learning, human resources, organizational development, and performance consulting. Program details found in the College of Engineering section of this catalog. For more information, call 208 424-5135, http://ipt.boisestate.edu/, or jfenner@boisestate.edu

### Master's Degrees in Educational Technology:

We offer a Master of Educational Technology for those who are Practitioner focused, and a Master of Science in Educational Technology for students who anticipate working in research or pursuing a doctoral degree. These two programs are entirely online and highly interactive.

For educators who need specialized training but don't want a complete master's degree, the department also offers three graduate certificates in Online Teaching, Technology Integration, and in School Technology Coordination. 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

**Selected Online Graduate Courses in Nursing:** The Department of Nursing offers a graduate program leading to a Master of Science in Nursing degree (thesis), and another program leading to a Master of Nursing

degree (professional project). Both programs provide preparation for research and professional practice in public health nursing with a population health emphasis. Several graduate courses in nursing are offered online. A professional fee is charge to students each semester. For more information, call 208 426-4143 or http://nursing. boisestate.edu, or nursing@boisestate.edu

### **Boise State AfterWork**

Boise State University now offers several 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 426-1709 or visit www.boisestate.edu/ afterwork.

### **Center for Professional Development**

The Center serves the professional development needs of the Treasure Valley by providing, with the academic colleges at Boise State, high quality work-related education for professionals and managers in public and private sector enterprises. For more information, call 208 426-3861.

### **Continuing Education Units (CEU)**

A Continuing Education Unit (CEU) is a nationally standardized unit documenting participation in noncredit programs, courses, or workshops. The Division of Extended Studies approves and transcribes CEUs, which can be provided to employers as verification that you have completed a course in which CEUs were granted. CEUs cannot be converted to academic credit. For more information, call 208 426-3861.

### **Corporate Relations Program**

Established in response to the needs of local corporations, the Corporate Relations Program provides a variety of services for local corporations, including educational programming, on-site registration, and on-site courses. For more information, call 208 426-3861.

### **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, 208 426-3861.

### **Osher Lifelong Learning Institute**

The Osher Lifelong Learning Institute (OLLI) provides a rich array of noncredit lectures and short courses from across the curriculum designed for seasoned adult learners. Membership is open to adults who enjoy the challenge of learning without the stress of tests and grades. No prerequisite are required for this program in which members share the common bond of intellectual curiosity. For a brochure and additional information, call 208 426-1709 or visit the OLLI web site at: http://www.boisestate.edu/osher

### Professional Education Program for Public 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, para-professionals, and professional employees of school districts to earn credit required for certification/re-certification and salary increases. The program offers courses for both academic credit and noncredit. For more information, call 208 426-1709.

### **Study Tours**

Extended Studies provides educational travel opportunities for students and the community in their Educational Study Tour program. Travel is scheduled between semesters, spring break and summers and is offered for credit or non-credit. The study tour program offers travel to locations in the U.S. as well as abroad. These faculty-led programs are open to current students as well as the general public and are usually one to two weeks in duration. Recent study tours have gone to London, Paris, Prague, Vienna, Italy, Mexico City, New York, Greece, Scotland, China and Spain. For more information, call 208 426-3293.

### **Summer Program**

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. For more information, call 208 426-1709.

### **Questions About Extended Studies?**

If you have questions about these programs contact the Division of Extended Studies, 1015 Grant Avenue, 208 426-1709 or online at http://www.boisestate.edu/ extendedstudies

# **Additional Graduate Courses**

NOTICE: The 500-level courses listed below are not offered on a regular basis. Students interested in these courses should consult with an advisor in the Department before completing their application.

#### **BIOCHEM-BIOCHEMISTRY**

#### **BIOCHEM 510 ADVANCED PROTEIN CHEMISTRY (3-0-3)**

(S) (Alternate years). An in-depth study of proteins that focuses on amino acid chemistry, protein structure, protein folding, and protein function. This course will discuss modern methods of protein characterization and the use of bioinformatics in understanding the chemistry/function of proteins. Given the recent developments in the proteomics, several of the high-throughput approaches to identifying proteins assessing function will also be investigated. Students will make extensive use of primary literature. PREREQ: CHEM 322 and CHEM 432 or PERM/INST.

BIOCHEM 511 NUCLEIC ACID METABOLISM (3-0-3)(S)

(Alternate years). An 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. PREREO: CHEM 322 and CHEM 433 or PERM/INST.

#### **BUSCOM-BUSINESS COMMUNICATION**

#### **BUSCOM 538 MANAGING TECHNICAL COMMUNICATION**

**(3-0-3) (F/S).** An advanced study of technical communication for managers and technical professionals who must originate, specify, and/or approve technical instructions, proposals, reports, and related documents. Students will acquire proficiency in writing and designing these documents by applying syntactic, semantic, and pragmatic theory and visual design principles to applied problems in document design, information access, and human information processing.

#### CHEM-CHEMISTRY

**CHEM 431G BIOCHEMISTRY I (3-0-3) (F).** A study of the chemistry of biologically important compounds and an introduction to metabolism. PREREQ: CHEM 301 or CHEM 309.

**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 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 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)

**(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 PERM/INST.

#### CHEM 561 INTRODUCTION TO MOLECULAR MODELING AND COMPUTATIONAL CHEMISTRY (1-3-2)(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 PERM/INST.

#### 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.

#### **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.

#### 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 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 390.

### Additonal Graduate Courses

**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.

#### 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.

#### 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.

#### 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 511 THE SOCIOLOGY OF AGE GROUP STRATIFICATION (3-0-3) (F/S).** Examination of the sociological effect of age as a major dimension of social organization and stratification in American society and Western civilization. The course will consider the effects of changing patterns of longevity, resultant changes in age distribution of the population as these factors affect social, economic, and political systems.

**SOC 512 SOCIAL DEMOGRAPHY (3-0-3) (F/S).** Techniques and methods for analyzing population growth, trends, and movement as reflected in actuarial data, birth-death rate; mobility, fertility and fecundity as these affect the societal patterns, especially planning for human service programs.

**SOC 535 DRUGS IN SOCIETAL CONTEXT (3-0-3) (F/S).** This class applies the sociological perspective on social problems to drug use. It examines how different social groups use drugs, attempt to control and prohibit the use of drugs, and the societal effects of using and controlling the use of drugs.

### SOC 571 FEMINIST SOCIOLOGICAL THEORY (3-0-3)(F/S).

An examination of the major types of feminist theory in Sociology or theory directly useful to sociologists in search of understanding and explaining gender relations. The student will encounter new perspectives in Sociology that arise from the exchange of new ideas, new data, exciting possibilities for social change, and the emergence of new theoretical models to understand gender relations. PREREQ: Graduate standing.

**SOC 595 READING AND CONFERENCE (1-2 credits).** Directed reading on selected materials in human services administration and discussion of these materials as arranged and approved through major advisor.

# **Administration and Faculty**

### **Boise State University Administration**

President Robert W. Kustra Provost and Vice President for Academic Affairs Sona Andrews Associate Vice President for Academic Planning James Munger Associate Vice President for Undergraduate Studies Sharon McGuire Vice President for Finance and Administration Stacy Pearson Associate Vice President for Finance and Administration Jo Ellen Dinucci Associate Vice President for Campus Planning and Facilities James Maguire Vice President for Student Affairs Michael Laliberte Vice President for University Advancement Howard L. Smith Associate Vice President for University Advancement Rika Clement Vice President for Research Mark Rudin Associate Vice President for Energy Research, Policy, and Campus Sustainability John Gardner Dean of University Libraries Marilyn K. Moody **Division of Extended Studies** Dean, Mark Wheeler Assistant Dean, Kenneth Brauchle

**Graduate College** Dean, John R. (Jack) Pelton Associate Dean, Alfred Dufty **College of Arts and Sciences** Dean, Martin Schimpf Associate Dean, Helen Lojek **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 Dean, Cheryl B. Schrader Associate Dean of Academic Affairs, Janet Callahan Assistant Dean of Research and Infrastructure, Rex Oxford College of Health Sciences Dean, James Girvan Associate Dean, Pam Springer Associate Dean, Sarah Toevs **College of Social Sciences and Public Affairs** Dean, Melissa Lavitt Associate Dean, L. Shelton Woods Larry Selland College of Applied Technology Dean, Vera McCrink Associate Dean of Community, Economic and Workforce Training, Stan Brings

### Boise State University Graduate Faculty Full-Time Official Faculty as of May 2008

NOTE: The date in parentheses is the year of first appointment.

A
Ahmed-Zaid, Said
Associate Professor, Electrical and Computer Engineering; Ph.D., University
of Illinois at Urbana-Champaign
Allen, Robin(1997)
Professor, Social Work; Ph.D., University of Illinois, Urbana-Champaign
Allred, Keith W
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
Associate Professor, Computer Science; Ph.D., Brigham Young University
Anderson, Holly L
Professor, Curriculum, Instruction and Foundational Studies; Ph.D., Utah
State University
Anderson, Jeffrey M
Director, Clinical Education and Associate Professor, Respiratory Care;
M.A., Boise State University
Anooshian, Linda James
Professor, Psychology; Ph.D., University of California, Riverside
Anson, Robert
Professor, Information Technology and Supply Chain Management; Ph.D.,
Indiana University

Α

the year of mot appointment.
Armstrong, James(1992) Professor, Literacy; Ph.D., University of Illinois, Urbana-Champaign Atlakson, Philip(1985) Professor, Theatre Arts; M.A., State University of New York, Binghamton
В
Babinkostova, Liljana
Bacon, Stephanie
Bahnson, Paul R
Bahruth, Robert
Baker, Edward (Ted)
Baker, R. Jacob
Baldassarre, Joseph A(1975) Professor, Music; D.M.A., Case Western Reserve University

Paldwin John D (1071)
Baldwin, John B(1971) Professor, Music; Ph.D., Michigan State University
Ball, Jeremy
Assistant Professor, Criminal Justice; Ph.D., University of Nebraska-Omaha
Ballenger, Bruce
Associate Professor, English; Ph.D., University of New Hampshire Baltzell, Michael
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 (2001)
Barbour, Barton
Barney, Lloyd Dwayne
Professor, Marketing and Finance; Ph.D., Texas A & M
Barney Smith, Elisa
Associate Professor, Electrical and Computer Engineering; Ph.D., Rensselaer Polytechnic Institute
Barrash, Warren
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
Bechard, Marc Joseph
Professor, Biological Sciences; Ph.D., Washington State University
Belfy, Jeanne Marie
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)
Chair and Professor, Biological Sciences; Ph.D., Clemson University
Benner, Shawn
Berg, Lynn R(1984)
Professor, Music; D.M.A., University of Wisconsin, Madison
Bieter, John
Assistant Professor, History, Ph.D., Boston College Bigbee, Jeri L
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Biochemistry; Ph.D., University of Utah
Schmitz, Mark
Graduate Program Coordinator and Assistant Professor, Geosciences;

Cohurdan Chand D (2002)
Schrader, Cheryl B
Dean, College of Engineering and Professor, Electrical and Computer
Engineering; Ph.D., University of Notre Dame
Schrader, Vivian
Associate Professor, Nursing, Ph.D., University of Idaho
Scott, Dan
Assistant Professor, Art; M.F.A., New York Academy of Art
Sego, Trina
Seibert, Pennie S
Professor, Psychology; Ph.D., University of New Mexico
Senocak, Inanc
Assistant Professor, Mechanical and Biomedical Engineering; Ph.D.,
University of Florida
Serpe, Marcelo
Associate Professor, Biological Sciences; Ph.D., University of California,
Davis
Shadle, Susan(1997)
Director, Center for Teaching and Learning and Professor, Chemistry and
Biochemistry, Ph.D., Stanford University
Shallat, Todd A
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
Associate Professor, Kinesiology; Ed.D., University of Northern Colorado
Shuck, Gail
Assistant Professor, English; Ph.D., University of Arizona
Shurtleff-Young, Cheryl(1978)
Graduate Program Coordinator and Professor, Art; M.A., University of
Oregon
Singletary, Ted J(1989)
Graduate Program Coordinator and Professor, Curriculum, Instruction and
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert
Foundational Studies; Ph.D., University of Illinois, Urbana-Champaign Smart, Robert

Schooley-Pettis, Diane.....(1989) Associate Dean, College of Business and Economics and Professor,

### **Graduate Faculty**

Sridhar, Venkataramana R	
Staley, Scott	
Steiner, Stanley	
Stephenson, Dale	
Director of Environmental Health and Associate Professor, Health Studies; Ph.D., Colorado State University	
Stepich, Donald A	ıl
Stewart, Roger	
Stohr, Mary(1993) Professor, Criminal Justice; Ph.D., Washington State University	
Streeter, Margaret	
Assistant Professor, Nursing; Ph.D., University of California, San Diego	
Т	
T	
<b>T</b> Tabor, Sharon W(1998) Chair and Professor, Information Technology and Supply Chain Management; Ph.D., University of North Texas	
T Tabor, Sharon W	
T Tabor, Sharon W	
T Tabor, Sharon W	
T Tabor, Sharon W	t;
T Tabor, Sharon W	t;
Tabor, Sharon W	t;
Tabor, Sharon W	t;
Tabor, Sharon W	t;
Tabor, Sharon W	t;

 Traynowicz, Laurel
 (1981)

 Associate Professor, Communication; Ph.D., University of Iowa
 (1970)

 Professor, English; M.A., Northwestern University
 (1970)

 Purner, Lee Ann
 (1996)

 Associate Professor, Art; Ph.D., University of Pennsylvania
 (2006)

 Tutty, Jeremy
 (2006)

 Assistant Professor, Educational Technology; Ph.D., Arizona State University
 (1986)

 Professor, Economics; Ph.D., University of Washington
 (1986)

#### U

Uehling, Karen S(1981)
Associate Professor, English; M.A., University of California, Davis
Ubic, Rick
Assistant Professor, Materials Science and Engineering; Ph.D., The
University of Sheffield, UK
Uh, Gang-Ryung
Assistant Professor, Computer Science: Ph.D. Florida State University

Assistant Professor, Computer Science; Ph.D., Florida State University

#### ۷

van Wijk, Kasper
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
Associate Professor, Instructional & Performance Technology; Ph.D.,
University of Northern Colorado

#### W

Walen, Sharon Graduate Program Coordinator and Professor, Mathematics; Ph.D., Washington State University	(1996)
Walsh, Anthony Professor, Criminal Justice; Ph.D., Bowling Green State University	(1984)
Wanek, James E	(1996)
Professor, Management, Ph.D., University of Minnesota	(1550)
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	(2000)
Welch, Thad B	(2008)
Chair and Professor, Electrical and Computer Engineering; Ph.D., Un	
of Colorado, Colorado Springs	inversity
White, Craig	(1980)
Professor, Geosciences; Ph.D., University of Oregon	(1000)
White, Harry	(1988)
Professor, Marketing and Finance; Ph.D., Texas A & M University	(1000)
White, Merlin M.	(2006)
Associate Professor, Biological Sciences; Ph.D., University of Kansas	
Wiatr, Elizabeth	
Assistant Professor, Art; PhD., University of California, Irvine	()
Widmayer, Jan	(1978)
Professor, English; Ph.D., University of Michigan	()
Wieland, Mitchell	(1996)
Associate Professor, English; M.F.A., University of Alabama	()
Wilhelm, Jeffrey D	(2003)
Professor, English; Ph.D., University of Wisconsin, Oshkosh	()
Wilkins, David E	(2000)
Graduate Program Coordinator, Earth Science and Associate Profess	
Geosciences; Ph.D., University of Utah	
Willerton, David Russell	(2005)
Assistant Professor, English; Ph.D., Texas Tech University	
Willison, Scott	(1997)
Director, Center for Multicultural & Educational Opportunities and	
Professor, Curriculum, Instruction and Foundational Studies; Ph.D., I	ndiana
University	
Wingett, Denise G.	
Associate Professor, Biological Sciences; Ph.D., Washington State Ur	niversity
Winiecki, Donald J	
Associate Professor, Instructional & Performance Technology; Ph.D.	Central
Queensland University; Ed.D., Texas Tech University	
Witt, Stephanie L	
Director, Public Policy Center and Professor, Political Science; Public	c Chair,
Policy and Administration; Ph.D., Washington State University	
Wojtkowski, W. Gregory	
Professor, Information Technology and Supply Chain Management, I	Ph.D.,
Case Western Reserve University	
Wojtkowski, Wita	(1983)
Professor, Information Technology and Supply Chain Management, I	Ph.D.,
Case Western Reserve University	
Wollheim, Peter	(1989)
Associate Professor, Communication; Ph.D., McGill University	
Wood, Jennifer	(2006)
Assistant Professor, Art; M.F.A., University of Miami	

(0000)

Woods, Lee
Assistant Professor, Special Education and Early Childhood Studies; Ph.D.,
University of Oklahoma
Woods, Shelton
Associate Dean, College of Social Sciences and Public Affairs and
Professor, History; Ph.D., University of California, Los Angeles
Wright, Grady

Assistant Professor, Sociology; Ph.D., University of Texas at Austin

#### Y

Yeh, Jyh-haw(2000)
Assistant Professor, Computer Science; Ph.D., University of Florida
Young, Richard A
Chair and Associate Professor, Art; M.F.A., Washington State University
Ysursa, John M

Visiting Assistant Professor History; Ph.D., University of California, Riverside

Assistant Professor, Biological Sciences, Computer Science; Ph.D., Iowa
State University. Yun, Ilhong
Z
Zaerr, Linda Marie
Ziker, John P
Barbara Zirinsky, Michael P(1973)
Professor, History; Ph.D., University of North Carolina Chapel Hill
Zubik-Kowal, Barbara

# Adjunct Graduate Faculty

V O

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## Part-Time Faculty, Faculty from Other Universities, Personnel from Affiliated Agencies and Emeriti

NOTE: The date in parentheses is the year of first graduate appointment. \*May chair graduate committees.

#### Α

Aksamit, Pat, Ph.D., Health Science
Andersen, Rudy, D.D.S., Health Sciences (Emeritus)
D

В	

Baehr, Paul, M.D., Kinesiology	(2002)
Ball, Christopher L., Ph.D., Biological Sciences	
Barr, Robert, Ph.D., Education (Emeritus)*	(1994)
Bart, Jonathan, Ph.D., Biological Sciences	(1997)
Basom, Marnie, M.P.H., Health Sciences	
Bernard, Pamela Hardaway, M.S., Health Sciences	(2006)
Bhatnagar, Rashmi, Ph.D., English	
Bildstein, Keith Louis, Ph.D., Biological Sciences	
Blacklock, Karen, Ed.D., Education	
Bond, Laura, M.S., Biological Sciences	(2001)
Boyer, Dale, Ph.D., English (Emeritus)	(1968)
Brawer, Judith M, J.D., Health Sciences	
Brewer, Kenneth, ABD/Ph.D., Biological Sciences	
Brown, Karen, Ph.D., Art *	(2004)
Bryant, Amy, Ph.D., Biological Sciences	
Burns, Richard V., B.A., Public Policy and Administration	(1996)
5	

#### С

Cade, Tom, Ph.D., Biological Sciences (Emeritus)*(1989)
Cadwallader, Kara, M.D., Health Sciences
Carlisle, Jay D., Ph.D., Biological Sciences *
Chadwick, Daniel G., J.D., Public Policy and Administration (1996)
Chase, Amanda, M.S., Educational Technology
Chilson, Jodi Nicole, M.F.A., English *
Christensen, Fred, M.B.A., C.P.A., C.G.F.M., Accountancy
Clement, William P., Ph.D., Geosciences * (1998)
Clemo, Thomas M., Ph.D., Geosciences *
Cobbs, Hartzell J., D.Religion, Health Sciences
Colby, Conrad, Ph.D., Health Sciences (Emeritus)(1970)
Cole, Teresa, Ph.D., Computer Science *

Collins, Marie (Mauri), D.Ed., Educational Technology	(2007)
Corbin, Robert, M.A., Sociology	(1990)
Cox, David, Ph.D., Instrl & Performance Tech (Emeritus)	(1992)
Cox, Marvin, Ph.D., Communication	(1977)
Cronin, Lawrence, M.S.W.; Social Work	(2007)
Curry, Stacie L., Ed.D., Education	(2004)
Cusack, Barry Justin, M.D., Kinesiology	(2003)

#### D

Dare, Matthew, Ph.D., Biological Sciences *	(2002)
Daughdrill, Gary W., Ph.D., Biological Sciences	(2004)
Davydov, Vladimir I., Ph.D., Geosciences *	(1999)
Dickelman, Gary J., M.A., Instrl & Performance Technology	(2004)
Donaldson, Paul R, Ph.D., Geosciences (Emeritus)*	(1975)
Donovan, Sean M., Ph.D., Materials Science *	(2005)
Douglas, Dorothy, Ph.D., Biological Sciences (Emeritus) *	(1987)
Dunaway, Gerald F., Ph.D., Health Sciences	(2003)

#### Ε

Earnst, Susan, Ph.D., Biological Sciences	(1997)
Eberle, David W., Ph.D., History	(2006)
Eldridge, David, Ph.D., Biological Sciences *	
Elgethun, Kai, PhD., M.P.H., Health Sciences	(2006)
Emerson, Mark, M.Div., ABD/Ph.D, Health Sciences	
Emmons, Alexandra, M.F.A., Art	(2006)
Ensley, Mary L., M.A., Counselor Education	(1996)
Evans, Sandra, M.A.Ed., Health Sciences	(2004)

#### F

Farris, Ann, Ed.D., Education	(2005)
Feldman, Murray, J.D., Public Policy and Administration	
Fillmore, Colleen, Ph.D., Health Sciences	
Fischer, Michael, D.M.A., Music	
Fischer, Richard, Ph.D., Biological Sciences	
Fisher, Sara Mae, M.P.A., Dispute Resolution	

# Adjunct Graduate Faculty

#### G

Gambliel, Herve Albert, Ph.D., Biological Sciences	(2003)
Gast, Marlene, Ph.D. Biological Sciences	(2006)
Gayeski, Diane, Ph.D., Instrl & Performance Technology	(1999)
Gelletly, Susan K., M.D, Health Sciences	(2003)
Georgeson, Yvonne L, M.A., English	(2005)
Gerber, Linda, M.A., Health Sciences	(2002)
Gibson, David, Ed.D., Educational Technology	(2007)
Girvan, Georgia, M.H.E., Health Sciences	(2006)
Gomez, Luis Eduardo, LL.M., Modern Languages	(2003)
Gomez-Frith, Alma, M.F.A., Art	(2006)
Gray, Gayle, M.H.S., Health Sciences	
Greenberg, Alvin, Ph.D., English	(2005)
Greenspan, Valeda, Ph.D., Nursing*	(2005)
Gregory, Bayard O., Ph.D., Dispute Resolution	(2004)

#### Н

Hahn, Christine, M.D., Health Science.       (1998)         Hannah, Elizabeth, D.V.M., Health Sciences       (2001)         Harris, Charles, Ph.D., Biological Sciences       (2002)         Harrison, Teresa Delgadillo, Ed.D., Education (Emerita)*       (1997)         Hatten, Steven A., M.S., Mechanical and Biomedical Engineering       (2005)         Hawkins, Nina, M.L.S., Education       (1992)         Heathcock, Alan, M.F.A., English       (2004)         Henbest, Margaret, M.S., Health Science       (1998)         Hoffman, Rebecca, Theatre Arts       (1997)         Horton, Robert J., M.S., Instri & Performance Technology       (2005)

#### L

llett, Frank Jr., M.B.A., Accountancy	96)
Isaacs, Christine, Ph.D., Criminal Justice	06)
Itkonan, Liisa, Ph.D., Sociology	98)

## J

Jaeger, Norma D., M.S., Criminal Justice	(2004)
Jarocki, William L., M.P.A., Public Policy and Administration	(1998)
Jenkins, Susan, Ph.D., Education	(2001)
Johnson, Chris, M.P.H., Health Sciences	(2003)
Jones, Errol, Ph.D., History (Emeritus)*	.(1982)
Jones, Wilma L., Ed.D., Education	(2006)
Juola, Robert, Ph.D., Mathematics (Emeritus)	(2004)

#### Κ

Keeble, John, M.F.A., English	
Keller-Peck, Cynthia, Ph.D., Biological Sciences	
Kerns-Blain, Angeline, M.A., Sociology	
Kiff, Lloyd Francis, M.A., Biological Sciences	(1995)
Kinter, Cecilia Lynn, Ph.D., Biological Sciences	
Knapp, James M.S.W., Social Work	(1993)
Knick, Steven T. Ph.D., Biological Sciences *	(1990)
Knowles, Todd Allen, Ed.D., Education	

Knox, Ellis (Skip), Ph.D., History	(1990)
Kochert, Michael, M.S., Biological Sciences	(1987)
Kushlan, Diane, M.C.P., Public Policy and Administration	(2008)

#### L

Lambert, Carroll, Ed.D., Education (Emerita)(1976	j)
LaRiviere, Sara, Ed.D., Health Studies (Emerita)(1989	I)
Laughlin, Kevin, Ph.D., Education	j)
Laverson, Steve, Kinesiology	)
Leavell, Daniel, Ph.D., Biological Sciences	?)
Leu, Matthias, Ph.D., Biological Sciences	?)
Liberty, Lee, M.S., Geosciences *	E)
Lind, Bonnie, M.S., Health Sciences	)
Lindsey, Melinda, Ph.D., Special Education (Emerita)*(1987	)
Louis, Galen, M.S., Health Science	j)
Luce, Charles, Ph.D., Geosciences	5)
Luke, Robert A., Ph.D., Physics, (Emeritus)(1971	)
Lyons, Lamont, Ed.D., Education (Emeritus)*(1977	)

#### Μ

MacGregor, Carol, Ph.D., History	(1998)
Mack, Richard N., Ph.D., Biological Sciences	(2007)
Marti, Jr. Carl D., Ph.D., Biological Sciences	(1987)
Martin, Sue, M.S.W.; Social Work	(2007)
Martini, MaryAnn, M.A., Education	(2000)
Marsh, Kevin R., Ph.D., History	(2002)
McCloskey, Richard, Ph.D., Biological Sciences (Emeritus)*	(1976)
McClure, Kenneth R., J.D., Public Policy and Administration	(1997)
McGavran, Patricia, Ph.D., Health Sciences	(2001)
McNeel, Steven C., Ph.D., History	(2003)
Miller, Alison, M.A., Health Science	(2000)
Miller, Beverly, M.A., History	(1998)
Miller, Margaret, Ph.D., Counselor Education (Emerita)	(1994)
Mishra, Rama, Ph.D., Mathematics*	(2007)
Mitten, Joanne, M.S., Health Science	(1999)
Moeller, John R., Ph.D., Health Sciences	(2003)
Mondin, Gregory, Ph.D., Kinesiology	(2002)
Moore, Heber G., Ph.D., Instrl & Performance Technology	(1996)
Moore, James R., M.S., Kinesiology	
Moss, Charles W., M.P.A., Public Policy and Administration	(2002)

#### Ν

Nelson, Anne Marie, Ph.D., Counselor Education (Emerita)	(1970)
Newman, Nicholas, M.A., Art	(2004)
Noonan, Elizabeth (Bonnie), M.S., Education	(1994)

#### 0

Olsen, Mary, M.A., Early Childhood	
Olsen, Thomas H., Ed.D., C & I Foundational Studies	
Olson, Richard D., Ph.D., Biological Sciences	(1997)
Olson, Richard, Ph.D., Health Science	(1997)
Ordmandy, Joan, M.S.Ed., Health Sciences	

#### Ρ

Paris, Anthony, J., Ph.D., Mechanical and Biomedical Engineering	(2001)
Park, Susan, J.D., Management	(1999)
Perry, Terrell, Ed.D., Instrl & Performance Technology	(2003)
Peterson, Dave, M.A., History	(2002)
Phelps, Ruth, Ph.D., Education	(1994)
Plasket, Donna, Ph.D., Education	(1996)
Powell, Linda, M.S., Health Science	(2000)
Prinzing, Dan, Ph.D., Education	(2006)

#### R

Ravitskaya, Irena, D.M.A., Music	
Resse, Melanie J., Ph.D., Dispute Resolution	

Affiliate	Graduate	Faculty
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Ripley, David E., M.B.A., Instrl & Performance Technology	(1998)
Rodgers, David W., Ph.D., Geosciences	(1987)
Rosentreter, Roger, Ph.D., Biological Sciences	(1987)
Ryan, Randall, Ph.D., Biological Sciences	(1998)

#### S

0.4.11 C A MO II NI C I (0000)
Safaii, SeAnne, M.S., Health Sciences
Sallabanks, Rex, Ph.D., Biological Sciences *
Salo, Lucinda F., Ph.D., Biological Sciences
Schamp, Cindy, M.A, Health Sciences
Schiappa, Tamra, Ph.D., Geosciences
Schlee, Conni, Ph.D., Elementary Education
Schweibert, Penelope, Ph.D., Instrl & Performance Technology(1999)
Semanko, Norman M., J.D., Health Sciences
Seyfried, Mark, Ph.D. Geosciences(1993)
Shannon, Susan, M.B.A., C.P.A., Accountancy
Shea, Kevin, M.D., Kinesiology
Sheffield, Ronald, Ph.D., Health Sciences
Silak, Cathy, J.D., Public Policy
Silva, Charlotte, Ph.D., Special Education
Simonson, Shawn, Ed.D.; Kinesiology
Sims, Robert, Ph.D., History (Emeritus)(1970)
Skoro, Charles, Ph.D., Economics(1982)
Small, Milton, M.A., History
Smith, Gwendolyn M., Ed.D., Dispute Resolution
Smith, Samuel W., Artist cellist, Music
Spear, Terry M., Ph.D., Health Sciences
Spencer, Jamison Ross, D.M.D., Biological Sciences *
Spinosa, Claude, Ph.D., Geosciences (Emeritus)*(1970)
Squires, Edward, M.S., Geosciences
Stamm, Beth, Ph.D., Health Science
Steenhof, Karen, M.S., Biological Sciences(1987)
Sterling, Robert, B.S., Health Science
Stevens, Dennis L., Ph.D., M.D., Biological Sciences
Stokes, Lee, Ph.D., Health Science (Emeritus)
biones, acc, r m.a., riculti belence (Enternus)

#### Т

Tengelsen, Leslie Ann, Ph.D., D.V.M., Health Sciences	(2002)
Thomas, Mary Norris, Ph.D., Instrl & Performance Technology	(2004)
Thorson, Carolyn, Ph.D., Educational Technology (Emerita)	(1987)
Toney, Patricia N. MA., Education	(1996)

Toweill, Dale, Ph.D., Biological Sciences	(2004)
Tutty, Jeremy, Ph.D., Educational Technology	(2006)
Tydeman, William, Ph.D., History	(1994)

#### V

Vakili, Donna, Ed.D., Educational Technology	(2007)
Van Maren, Nancy, M.A., M.S.W., Health Sciences	(1998)
Virta, Alan, M.L.S., History	(1989)
Veres, Sharry, M.D., Community and Environmental Health	(2008)
Viskupic, Karen, Ph.D., Geosciences *	(2004)

#### W

Wagner, Catherine, Ph.D., English
Walker, David, Ph.D. History*
Ware, Judy, Ph.D., Dispute Resolution
Watson, Richard T., Ph.D., Biological Sciences
Weatherby, James, Ph.D., Public Policy & Administration (Emeritus)*(1989)
Weinberg, Pamela, Ph.D., Health Sciences
West, Elizabeth A., Ph.D., Special Education
Whelan, William, J.D., Public Policy
West, Stephen, M.H.S., Health Sciences
Whitacre, David, Ph.D., Biological Sciences
White, Courtney Reynolds, M.B.A., Business & Economics
Wicklow-Howard, Marcia, Ph.D., Biological Sciences (Emerita)*(1975)
Wilson, Kevin, M.A., English
Wilson, Stephen K., M.P.A., Public Policy and Administration
Wolf, Rebecca, M.F.A., English
Womak, Michael S., M.D., Kinesiology(2005)
Wood, Spencer H., Ph.D., Geosciences (Emeritus)*(1977)
Worthington, Janet Evans, Ph.D., Educational Technology

#### Υ

Yensen, A. Eric, Ph.D., Biological Sciences *	(2002)
Youngerman, Stephanie, E.D., Education	(2002)
Yopp, Martha, Ed.D., Education	(2001)
Youtz, D. Jeffrey, B. A., Public Policy and Administration	(1999)

#### Ζ

# Affiliate Graduate Faculty

Participants in multi-university programs.

Ahlman, Chris; Ph.D, Social Work
Black, Thomas, M.A., Geosciences
Chandler, David, Ph.D., Geosciences
Christensen, David, M.A., International Business
Christenson, Brian; Ph.D., Education
Clouser, William; Ph.D., Education
Delgado, Marilyn; MSW, Social Work
Dickins, David F., B.A.Sc., Mechanical and Biomedical Engineering (2007)
Downey, Eleanor Pepi; Ph.D., Social Work
Felton, E. Ann, M.A.H.R., History
Funda, Evelyn I., Ph.D., English
Goodwin, Peter, Ph.D., Engineering
Harper, Joel T., Ph.D., Geosciences
Hirshberg, Diane, Ph.D., Education
Hunt, J. Brad, M.A. Education
Johnson, Rochelle, Ph.D., Education

Kaltenecker, Greg, Biological Sciences	
Koch, Edwards D., M.S.; Biological Sciences	
Lacey, Kathleen, M.A., History	
Likins, Marilyn, Ph.D., Education	
Lloyd, John, Ph.D., Biological Sciences	
McKean, Jim, Ph.D., Geosciences	
McLaughlin, Lisa, PhD, Communication	
Perry Bauer, Barbara, M.A., History	
Seaman, J. R.; Ph.D., Political Science, Social Work	
Sholle, David, Ph.D., Communication	
Simpson, Michael, Materials Science and Engineering	
Strohmeyer, Ronald W., Ph.D., Biological Sciences	
Tacke, Nancy, M.A., History	
Thompson, Pam; MSW, Social Work	
Walser, Chris, Biological Sciences	
Walters, Heath; MSW, Social Work	

#### Α

Academic Adjustment See Admission to Candidacy Academic Calendar 4 Academic Performance 25 Academic Regulations 25-28 Accountancy, Department of 99-102 Accountancy, M.S. 99 Accountancy, Taxation, M.S. 101 Accreditation of Programs 13 Adding Classes and Dropping Classes 37 Additional Graduate Courses 206 Address Changes 20 Adjunct Graduate Faculty 13, 217 Administrative Withdrawal 20 Admission Regulations 21 Degree-Seeking Students 21 Handling of Documents 24 International Student 23 Nondegree-Seeking Students 21 Admission Requirements 21 Admission to Candidacy 27-28 See Individual Course Requirements; See Program GPA Requirement Admission to Certificate or Degree Program 21 Advisor 25, 31 Aggregate Restriction 31, 35 Albertsons Library, The 14 An Introduction to Boise State University 12-23 Anthropology, Department of 173-175 Anthropology, M.A. 173 Anthropology, Master of Applied 174 Appeals 20, 42, 49 Application Deadlines 22 Application Fee 23 Art, Department of 54-56 Art Education, M.A. 55 Visual Arts, M.F.A. 54 Art Education, M.A. 55 Arts and Sciences, College of 53-91 Assessment 17 Assistantships 45 Athletics and Recreation 15 At-Large Graduate Faculty 219 Attendance in Class See Faculty-Initiated Withdrawal Audit Courses 37

#### B

Bilingual Education, Department of 106–108 Bilingual Education, M.Ed. 107 English as a Second Language, M.Ed. 107 Biological Sciences, Department of 57–91 Biology, M.A. 58 Biology, M.S. 59 Raptor Biology, M.S. 59 Boise State University, An Introduction to 12 Boise State West 203 BSU Canyon County Campus 203 Business Administration, Executive Master of 98–102 Business Administration, Master of 92–98 Business and Economics, College of 92–104

#### С

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