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UNIVERSITY OF  
**MONTANA**



2013-2014 CATALOG

**Thrive.**

# **IMPORTANT NOTICE**

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If you have questions, please contact

Joseph Hickman  
Interim Registrar  
The University of Montana

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## **Advising**

Academic advising is critical to student success at University of Montana. All undergraduate students are required to meet with their advisor at least once each semester to review educational progress, discuss future plans and secure schedule approval prior to registration. Additional meetings are recommended for information and guidance on dropping and/or adding courses, changing/declaring majors, exploring available resources and ensuring that graduation requirements are met.

Faculty and professional advisors, as well as peer advising assistants facilitate positive academic advising experiences by:

- helping students to develop mentoring relationships with faculty and professional staff
- encouraging students to fulfill their obligation to plan in advance for advising sessions
- educating students to understand and accept their responsibilities in the advising process and for advising decisions, and
- promoting frank and productive dialogue about the student's academic goals.

Students improve their academic planning and success by fully using the advising services and by learning about the academic requirements of their major fields, and the University policies for registration and graduation. The UM catalog is the official source of information on these matters. Although advisors are available to assist students, it is important for students to realize that the ultimate responsibility for meeting all graduation requirements is their own.

### **Mountain Campus Students**

When students indicate a major on their application form, it becomes their initial declared major.

Advisor information and assignment is done through the student's major department. If the student is undeclared, pre-Communication Studies, pre-Psychology or Freshman Business, he/she is assigned to a professional advisor at the Undergraduate Advising Center ([www.umt.edu/uac](http://www.umt.edu/uac)).

To change a major, a student must submit an official Change of Major form to the Registration Desk at Griz Central. Once the new major is formally declared, the student should seek advising from the department.

Students with academic advising questions or concerns may contact the Undergraduate Advising Center, Lommasson Suite 269, The University of Montana, Missoula, MT 59812, [www.umt.edu/uac](http://www.umt.edu/uac), or by phone at (406)243-2835.

### **Missoula College Students**

Students are assigned an academic advisor in their major (program) upon acceptance to the Missoula College.

Academic programs are identified by the major the student declared on his/her Admissions application, or by an official change of major form filed by the student.

For questions regarding assigned advisors, or to change advisors, students can contact Student Services at 243-7882 or in the Missoula College Administration building.

For other questions or concerns about advising, students may contact their Department offices, Student Services (243-7882) or the Retention Coordinator (243-7878).

## **Academic Policies and Procedures**

### **Academic Calendar**

The Academic Calendar for the current academic year, as well as past and future years, may be found via the following link: [Academic Calendars](#)

### **Registration in Courses**

Students who have no prior attendance at The University must apply for admission and be admitted before being eligible to

register for courses. See the Admissions section of this catalog or the admissions website at <http://www.umt.edu/future>.

Detailed instructions regarding registration and course offerings are available via the following links:

Registration Information: <http://www.umt.edu/registrar/Registration/registrationinformation.aspx>

Class Schedule by term: [https://webprocess.umt.edu/cyberbear/bwckschd.p\\_disp\\_dyn\\_sched](https://webprocess.umt.edu/cyberbear/bwckschd.p_disp_dyn_sched)

Students must complete course registration during the scheduled registration period or be subject to payment of a late registration fee, if allowed to register. *Registration is not complete nor is any academic credit awarded until all course tuition and fees for the semester have been paid.*

### Readmission to the University After 24 Months of Non-attendance

If former students are planning to attend a summer session or an academic year semester but were not in attendance during the immediately preceding 24 months, then they must apply for readmission before being eligible to register for courses. Students should reapply by July 1 for autumn semester attendance, and by November 1 for spring semester attendance. See the Admissions section of this catalog.

Missoula College (formerly College of Technology) students must reapply for readmission via the Missoula College Registrar's Office (909 South Avenue). See <http://admissions.umt.edu/admissions/missoula-college>.

Mountain Campus students (seeking baccalaureate or higher degrees) must apply for readmission via the Enrollment Services Office in the Emma Lommasson Center. See: <http://www.umt.edu/future>.

Some specific programs at the Missoula College require students who do not enroll for a semester or more (excluding summer) to apply for *readmission* into that program.

All students who are both in good standing and (i) currently enrolled or (ii) readmitted to the University may preregister for the subsequent semester, unless a registration hold exists on the student's record.

### Notice to Students with Disabilities

Students with disabilities may obtain assistance with the registration process and the relocation of classes (if needed) through Disability Services in Lommasson Center 154 (406) 243 2243 VOICE/TDD.

### Adding and Dropping Courses or Changing Sections, Grading or Credit Status

When selecting and registering for their courses, students are expected to make informed choices and regard those choices as semester-long commitments and obligations.

### Adding, Dropping and Other Course Changes – Summary Tables

Students who request to add, drop or change the grading option must have all registration holds cleared in order for the request to be honored. The following information does NOT apply to the School of Law. Law school students should see the School of Law website for information.

### Autumn & Spring Semesters

Instructional Days	Day 1-7	Day 8-15	Day 16-45	Day 46 – Last Regular Class Day/ Friday Before Finals Week	After Last Regular Class Day
<b>Add a Course</b>	CyberBear	Course Add/Change Form with instructor signature	Course Add/Change Form with advisor* and instructor signature	Course Add/Change Form with advisor* and instructor signature	Only registration errors can be corrected; use the Course Add/Change Form with advisor* and instructor signature

<b>Change a Section</b>	CyberBear	<i>Course Add/Change Form</i> with both instructors' signatures	<i>Course Add/Change Form</i> with both instructors' signatures	<i>Course Add/Change Form</i> with both instructors' signatures	Only registration errors can be corrected; use the <i>Course Add/Change Form</i> with both instructors' signatures
<b>Drop a Course</b>	CyberBear	CyberBear	<i>Course Drop Form</i> with advisor* and instructor signature  (W on transcript)	<i>Course Drop Form</i> with advisor*, instructor and Dean's signature  (WP or WF on transcript)	Not permitted
<b>Change to/from Audit</b>	CyberBear	CyberBear	Not permitted	Not permitted	Not permitted
<b>Change to/from CR/NCR grading, or change credits (for variable credit courses)</b>	CyberBear	CyberBear	<i>Course Add/Change Form</i> with advisor* and instructor signature	<i>Course Add/Change Form</i> with advisor* and instructor signature	Not permitted

\* Not required for Graduate & Post-Baccalaureate students

### Winter Session

<b>Instructional Days</b>	<b>Day 1</b>	<b>Day 2-3</b>	<b>Day 4-8</b>	<b>Day 9-13</b>	<b>Day 14 &amp; Beyond</b>
<b>Add a Course</b>	CyberBear	<i>Course Add/Change Form</i> with instructor signature	<i>Course Add/Change Form</i> with instructor signature	<i>Course Add/Change Form</i> with instructor signature	Only registration errors can be corrected; use the <i>Course Add/Change Form</i> with instructor signature
<b>Change a Section</b>	CyberBear	<i>Course Add/Change Form</i> with both instructors' signatures	<i>Course Add/Change Form</i> with both instructors' signatures	<i>Course Add/Change Form</i> with both instructors' signatures	Only registration errors can be corrected; use the <i>Course Add/Change Form</i> with both instructors' signatures
<b>Drop a Course</b>	CyberBear	Cyberbear	<i>Course Drop Form</i> with instructor signature  (W on transcript)	<i>Course Drop Form</i> with instructor and Dean's signature  (WP or WF on transcript)	Not permitted
<b>Change to/from Audit</b>	CyberBear	Cyberbear	Not permitted	Not permitted	Not permitted
<b>Change to/from CR/NCR grading, or change credits (for variable credit courses)</b>	CyberBear	Cyberbear	<i>Course Add/Change Form</i> with instructor signature	<i>Course Add/Change Form</i> with instructor signature	Not permitted

### Summer Semester: 5-week Sessions

<b>Instructional Days</b>	<b>Day 1-2</b>	<b>Day 3-5</b>	<b>Day 6- 14</b>	<b>Day 15-23</b>	<b>Day 24 &amp; Beyond</b>
<b>Add a</b>	CyberBear	<i>Summer Override &amp; Add/Drop Form</i>	<i>Summer Override &amp; Add/Drop Form</i>	<i>Summer Override &amp; Add/Drop</i>	Only registration errors can be corrected; use the <i>Summer</i>

<b>Course</b>		with instructor signature	with instructor signature	Form with instructor signature	Override & Add/Drop Form with instructor signature
<b>Change a Section</b>	CyberBear	Summer Override & Add/Drop Form with both instructors' signatures	Summer Override & Add/Drop Form with both instructors' signatures	Summer Override & Add/Drop Form with both instructors' signatures	Only registration errors can be corrected; use the Summer Override & Add/Drop Form with both instructors' signatures
<b>Drop a Course</b>	CyberBear	CyberBear	Summer Override & Add/Drop Form with instructor signature  (W on transcript)	Summer Override & Add/Drop Form with instructor and Dean's signature  (WP or WF on transcript)	Not permitted
<b>Change to/from Audit</b>	CyberBear	CyberBear	Not permitted	Not permitted	Not permitted
<b>Change to/from CR/NCR grading, or change credits (for variable credit courses)</b>	CyberBear	CyberBear	Summer Override & Add/Drop Form with instructor signature	Summer Override & Add/Drop Form with instructor signature	Not permitted

### Summer Semester: 10-week Session

<b>Instructional Days</b>	<b>Day 1-5</b>	<b>Day 6-10</b>	<b>Day 11-29</b>	<b>Day 30-47</b>	<b>Day 48 &amp; Beyond</b>
<b>Add a Course</b>	CyberBear	Summer Override & Add/Drop Form with instructor signature	Summer Override & Add/Drop Form with instructor signature	Summer Override & Add/Drop Form with instructor signature	Only errors can be corrected; use the Summer Override & Add/Drop Form with instructor signature
<b>Change a Section</b>	CyberBear	Summer Override & Add/Drop Form with both instructors' signatures	Summer Override & Add/Drop Form with both instructors' signatures	Summer Override & Add/Drop Form with both instructors' signatures	Only errors can be corrected; use the Summer Override & Add/Drop Form with both instructors' signatures
<b>Drop a Course</b>	CyberBear	CyberBear	Summer Override & Add/Drop Form with instructor signature  (W on transcript)	Summer Override & Add/Drop Form with instructor and Dean's signature  (WP or WF on transcript)	Not permitted
<b>Change to/from Audit</b>	CyberBear	CyberBear	Not permitted	Not permitted	Not permitted
<b>Change to/from CR/NCR grading, or change credits (for variable credit courses)</b>	CyberBear	CyberBear	Summer Override & Add/Drop Form with instructor signature	Summer Override & Add/Drop Form with instructor signature	Not permitted



#### Special Sessions

Special Session courses vary from the sessions listed above. For example, a course taught over a period of five weeks is considered a “special session” course if its start and end dates are different than the published regular term dates. Please check with the Registrar’s Office for specific dates related to changing registration in a special session course.

#### **Adding, Dropping and Other Course Changes – Detailed Information**

**Important Notice Regarding “Day of the Semester:”** All guidelines and timelines that follow refer to the traditional autumn and spring semesters, which are generally 74-75 days in length. The timelines that apply to Summer Sessions and Winter Session are detailed in the tables above. See "Important Dates" links on the Registrar's Office Website at: <http://www.umt.edu/registrar/calendar.aspx> or on The School of Extended and Lifelong Learning (SELL) website for additional detailed information. Also, please see the Business Services/Student Accounts website for information regarding how fees are impacted by dropping/adding courses, as well as the refund schedule for a complete withdrawal from The University. <http://www.umt.edu/bussrvcs/Students/default.aspx>

#### **Adding, Dropping or Other Course Changes – First Through Seventh (1 – 7) Instructional Day of the Semester**

During this timeframe, students may use CyberBear to add courses, drop courses, change grading options, and/or change variable credits. Access to CyberBear for adding courses or changing sections ends at 5:00 p.m. Mountain Time on the seventh day of classes.

#### **Adding, Dropping or Other Course Changes – Eighth Through Fifteenth (8 – 15) Instructional Day of the Semester**

During this timeframe, *with consent of the course instructor*, students may add courses or change sections with a signed paper-Registration Override Form or an instructor-approved electronic override (via CyberBear). Fees are reassessed each night during this time period. Added courses and credits may result in additional fees.

Students may drop courses, change grading option (including audit), and/or change variable credits via CyberBear until 5:00 p.m. Mountain Time on the fifteenth day.

#### **Adding, Dropping or Other Course Changes – Sixteenth Through Forty fifth (16 – 45) Instructional Day of the Semester**

During this timeframe, students must complete a paper *Course Drop Form* or *Course Add/Change Form* as well as obtain the signature of both the course instructor and student’s advisor to (i) drop/add a course and/or (ii) make changes of section, grading option, or credit. The ability to change to or from audit is *no longer* available at this time. Completed forms must be returned to the GrizCentral Registration Counter (or the Registrar’s Office at the Missoula College Campus) no later than close of business on the **forty-fifth** instructional day of a semester. If students have submitted Course Drop Forms but have not cleared all holds by this deadline, then they are required to also collect a signature from the Dean of the student’s major no later than the Last Regular Class Day. A \$10.00 processing fee is charged for each drop or add. Added courses and credits may result in additional fees. There are no refunds or reductions of fees for courses dropped after the 15<sup>th</sup> day (or equivalent), and a grade of W (withdrawn) is recorded for each dropped course.

#### **Adding, Dropping, or Other Course Changes – Forty sixth Instructional Day of the Semester Through the Last Regular Class Day/Friday before Finals Week**

During this timeframe, a *Course Add/Change Form* must be completed by the student and signed by the course instructor and the student’s advisor to add a course, change the grade option, or change variable credits. Changing to or from audit is *not permitted* during this time. *Not all requests for adds, changing grade options, or changing variable credits are approved.* Advisors have the right to indicate they do not recommend approval of the request. However, it is the course instructor’s decision to approve or deny the request to add/change a course.

Completed forms must be returned to the GrizCentral Registration Counter (or the Registrar’s Office at the Missoula College Campus) no later than close of business on the Last Day of Regular Classes. Students who request a change in grading

option must also have cleared all holds by this deadline or the request *cannot* be honored. A \$10.00 processing fee is charged for each add. Added courses and credits may result in additional fees.

During this timeframe, **students may drop courses only by petition**. Note that not all petitions are approved, and that documented justification is required. *Some examples of documented circumstances that may merit approval are: accident or illness, family emergency, or other circumstances beyond the student's control.* Instructors and advisors have the right to indicate they do not recommend the drop. However, it is the decision of the Dean of the student's major to approve or deny the request to drop courses.

To petition to drop a course, a *Course Drop Form* must be completed, with the signature of the student's advisor, the course instructor, and the Dean of the student's major. Completed forms must be returned to the GrizCentral Registration Counter (or the Registrar's Office at the Missoula College Campus) no later than close of business on the Last Regular Class Day/Friday before Finals Week. If students submit Course Drop Forms or request a change in grading option, then they must also have cleared all holds by this deadline; otherwise, the request *cannot* be honored. A \$10.00 processing fee is charged for each drop. There are no refunds or reductions of fees for courses dropped, and the instructor assigns a grade of WP (withdrawn/passing) if a student's course work has been passing or WF (withdrawn/failing) if failing. These grades do not affect grade averages but they are recorded on a student's transcript.

The opportunity to drop a course for the current term ends on the last day of instruction before scheduled final exams. Dropping a course taken in a previous term or altering grading option or audit status for such a course is **not** allowed. The only exceptions are for students who have received a grade of NF (never attended/fail).

**Law School Students** - See the School of Law section of this catalog for links to the School of Law website, which will list the add and drop deadlines for law courses.

### **Class Attendance/Absence Policy**

Students who are registered for a course but do not attend the first two class meetings may be required by the instructor to drop the course. This rule allows for early identification of class vacancies to permit other students to add classes. **Students not allowed to remain must complete a drop form or drop the course on the Internet (<http://cyberbear.umt.edu>) to avoid receiving a failing grade.** Students who know they will be absent should contact the instructor in advance.

Students are expected to attend all class meetings and complete all assignments for courses in which they are enrolled. Instructors may excuse brief and occasional absences for reasons of illness, injury, family emergency, religious observance or participation in a University sponsored activity. (University sponsored activities include for example, field trips, ASUM service, music or drama performances, and intercollegiate athletics.) Instructors shall excuse absences for reasons of military service or mandatory public service.

Instructors may establish absence policies to conform to the educational goals and requirements of their courses. Such policies will ordinarily be set out in the course syllabus. Customarily, course syllabi will describe the procedures for giving timely notice of absences, explain how work missed because of an excused absence may be made up, and stipulate any penalty to be assessed for absences.

The UM Faculty Senate encourages the faculty to accommodate students incurring an excused absence by allowing them to make up missed work when this can be done in a manner consistent with the educational goals of their courses. Students expecting to incur excused absences should consult with their instructors early in the term to be sure that they understand the absence policies for each of their courses.

### **Withdrawal from the University**

Students who withdraw from the University (withdrawing from ALL classes) while a semester is in progress must complete withdrawal forms which are obtained from the Registration Counter in Griz Central (Lommasson Center) or the Registrar's Office in the College of Technology. Drop/add forms cannot be used to withdraw from school and students are not allowed to drop all their courses on the Internet. International students must first contact the Foreign Student Advisor before withdrawing

as visa status will be affected. Medical withdrawals are granted only for a student's significant health problems and must be documented by a healthcare provider.

See the Expenses section of this catalog for fee information relating to withdrawal from The University.

If a student receiving financial aid withdraws they may have to repay aid received in the current semester and it may affect eligibility in the future semesters. If a student stops attending classes without formally withdrawing they too may have to repay aid received in the current semester and may be ineligible for aid in future terms. Students who reside in a University residence hall or in family housing must notify the Residence Life Office or the Family Housing Office of the withdrawal.

Students who purchase health insurance with registration will receive a refund and lose coverage if withdrawn during the first fifteen instructional days unless a student is granted a medical withdrawal. Withdrawal after the fifteenth day will not result in a refund but coverage will continue through the remainder of the semester.

When withdrawal forms are completed in Griz Central or the Registrar's Office in the College of Technology before the last two weeks of the semester, grades of W (withdrawal) are assigned. Beginning two weeks from the end of the term, students may not withdraw from the University except for very unusual circumstances. Such late withdrawals are to be approved by the student's academic dean before the end of the semester. However, in exceptional cases, a student's academic dean may approve retroactive withdrawal for the last semester in attendance, provided the request is approved before the end of the student's next semester of enrollment.

### **University Employee Registration**

University employees who have applied and have been accepted for admission to the University may register with the approval of the employee's supervisor. Waivers of some fees are granted to some faculty and staff members who are at least three quarter time salaried employees on the date of registration. Additional information and the necessary forms are available in the Office of Human Resource Services in the Lommasson Center.

### **Grading System**

The University uses two types of grading: traditional letter grades and credit/ no credit grades. At the option of the instructors some courses are offered only on the traditional letter grade basis or only on the credit/no credit basis. Other courses are open to either type of grading, at the option of the student. Courses offered on the A -F basis only or CR/NCR only will be indicated in the [Class Schedule](#) or [via CyberBear](#). Grades preceded by an R indicate remedial courses. Grades preceded by an E indicate academic forgiveness was granted.

The instructor has the first fifteen (15) class days of the semester to change the grading option for their course. If a change does occur from the original published grading option, the students in the class and the Registrar's office must be notified of the change not later than the fifteenth (15) class day.

### **Traditional Letter Grading (A-F)**

Traditional Letter Grades represent an assessment of the overall quality of work performed in a given course. A-Excellent; B-Good; C-Satisfactory; D-Poor, F-Failure. When assigning traditional letter grades, instructors may, at their discretion, utilize the symbols + or -. Use of the + or - will be limited to A-, B+, B-, C+, C-, D+, and D-. Other grade symbols used are: I-Incomplete; N-work on the course may be continued in later semesters (when work is completed, the final grade assigned applies to all semesters of the course); NF-no record of academic performance; W-withdrawal from a course or course dropped after the fifteenth instructional day; WP-course dropped after the forty-fifth instructional day with passing work; WF-course dropped after the forty-fifth instructional day with failing work; AUD-auditor registration. (AUD is recorded for all students who register in courses as auditors, intending to listen to the courses without earning credit or being graded. The same fees are assessed as when registering for credit. Any attendance or participation expectations are established by the instructor of the course. If attendance expectations are not met, the instructor may request a notation be placed on the student's academic record indicating attendance was not satisfactory.) Remedial courses do not count in credits earned, nor in grade point averages, nor do they count toward graduation.

### Credit/No Credit Grading (CR/NCR)

**Student Option:** To encourage students to venture into courses where they might otherwise hesitate because of uncertainty regarding their aptitude or preparation, they may enroll in some courses on a credit/no credit basis. Freshmen and sophomores are discouraged from taking more than one course a semester on a credit/no credit basis.

**No more than 18 CR credits may be counted toward graduation requirements at the baccalaureate level.** Courses taken to satisfy General Education Requirements must be taken for traditional letter grade. Courses required for the student's major or minor must be taken for traditional letter grade, except at the discretion of the department concerned.

A grade of CR is assigned for work deserving credit (A through D-) and a grade of NCR is assigned for work of failing quality (F). CR and NCR grades do not affect grade point averages. The grades of CR and NCR are not defined in terms of their relationship to traditional grades for graduate course work.

Election of the credit/no credit option must be indicated at registration time or within the first 15 class days on CyberBear. Between the 16<sup>th</sup> day and the last day of instruction before finals week, a student may request a change from credit/no credit enrollment to an enrollment under the A-F grade system, or the reverse, by means of a Course Add/Change Form; note that not all such requests are approved. **See instructions above.**

The University cautions students that many graduate and professional schools and some employers do not recognize non-traditional grades (i.e., those other than A through F) or may discriminate against students who use the credit/no credit option for many courses. Moreover, students are cautioned that some degree programs may have different requirements regarding CR/NCR credits, as stipulated in the catalog.

### Faculty Option

- \* A faculty member may elect to grade an entire class using the traditional letter grading option (A-F).
- \* A faculty member may elect to grade an entire class using the credit/no credit option (CR/NCR). This method of grading is used in courses where more precise grading is inappropriate.
- \* A faculty member may elect to grade an entire class with the open grade mode option which allows students to choose between traditional letter grading and credit/no credit grading. When a course is offered with the open grade mode option, then the default grading at the time of registration defaults to traditional letter grading. *It is the student's responsibility to make the change to credit/no credit grading if this is their preference.*
- \* Faculty members must choose the grade mode option for their courses at the time when courses are being proposed for a particular semester or within the first 15 instructional days of the semester.
- \* Courses graded credit/no credit only and courses graded A-F only will be identified in the Class Schedule or via CyberBear.

### No Credit Grading in Composition (NC)

Students enrolled in WRIT 095D and WRIT 101 (formerly WTS100 and ENEX 101) and WTS 101 (COM 101) are graded by the traditional letter grades of A through F or are given NC for no credit. The NC grade is awarded when exceptional progress has occurred but the student needs to repeat the course. The NC grade does not affect grade point average.

### Incomplete Grade Policy

It is assumed that students have the responsibility for completing the requirements of the courses in which they are enrolled within the time framework of the semester

A grade of Incomplete (I) may be given when, in the opinion of the instructor, there is a reasonable probability that students can complete the course without retaking it.

The incomplete is not an option to be exercised at the discretion of a student. In all cases it is given at the discretion of the instructor within the following guidelines:

1. A mark of incomplete may be assigned students when:
  - The student has been in attendance and doing passing work up to three weeks before the end of the semester, and
  - For reasons beyond the student's control and which are acceptable to the instructor, the student has been unable to complete the requirements of the course on time. *Negligence and indifference are not acceptable reasons.*
2. The instructor sets the conditions for the completion of the course work and notes these conditions on the final grade report.
3. When a student has met the conditions for making up the incomplete, the instructor will assign a grade based upon an evaluation of the total work done by the student in the course.
4. An incomplete which is not made up within one calendar year automatically will revert to the alternate grade which was assigned by the instructor at the time the incomplete was submitted.
5. An incomplete remains on the permanent record and is accompanied by the final grade, for example, IA, IB, IC, etc.

### **Computation of Cumulative Grade Point Average**

Quality points are assigned as follows: 4 quality points for each credit of A; 3.7 quality points for each credit of A-; 3.3 quality points for each credit of B+; 3 quality points for each credit of B; 2.7 quality points for each credit of B-; 2.3 quality points for each credit of C+; 2 quality points for each credit of C; 1.7 quality points for each credit of C-; 1.3 quality points for each credit of D+; 1 quality point for each credit of D; and 0.7 quality points for each credit of D-.

The cumulative grade average is computed by dividing the total quality points earned by the total number of credits attempted, excluding courses assigned W, WF, WP, CR, NC, NCR, I, AUD, or N grades and courses numbered under 100 (grade is preceded by an R). For repeated courses, excluding courses assigned W, WF, WP, CR, NC, NCR, I, AUD, or N grades, only the last grade earned will count toward the cumulative grade average. Grades for courses transferred from other colleges and universities are not included in the calculation of the grade average for graduation.

### **Undergraduate Academic Performance**

The cumulative grade average is calculated by dividing the total quality points earned by the total number of credits attempted, excluding courses assigned W, WF, WP, CR, NC, NCR, I, AUD, or N grades and courses numbered under 100 (grade is preceded by an R). Grades for courses transferred from other colleges and universities are not included in the calculation of the grade average for graduation. However, for determination of graduation honors/high honors, grades for all work transferred to this University, including failing grades are factored into the calculation.

### **Undergraduate Academic Probation**

An undergraduate student will be placed on academic probation if at the end of any semester his/her cumulative grade average drops below 2.00. The effect of the academic probation is to serve notice to the student that the quality of his/her work is below an acceptable level and that continuation of unsatisfactory work during their next semester of enrollment will result in academic suspension. Academic probation status is recorded on the student's academic transcript and semester grades (viewable on [cyberbear.umt.edu](http://cyberbear.umt.edu).) Students placed on probation should contact their academic advisor immediately to seek assistance and direction.

### **Undergraduate Academic Suspension**

An undergraduate student will be placed on academic suspension at the end of any semester if the student was on academic probation during his/her prior semester of attendance and the student's cumulative grade average remains below 2.00. Exceptions are made if the student earns at least a 2.00 grade average for the current semester without raising the cumulative grade average to the required minimum. In such cases, students remain on academic probation. A student placed on academic suspension may not re enroll at the University unless the student has been reinstated. Academic suspensions are noted on final grades and transcripts on <http://cyberbear.umt.edu>. **For more information go to the following URL:** <http://www.umt.edu/registrar/students/academicsuspension.aspx>

### **Reinstatement**

As noted above, an undergraduate student will be academically suspended at the end of a semester if placed on academic probation during the previous semester of attendance and the student's cumulative graduate point average (CGPA) remains below the 2.00 CGPA required for good academic standing.

Students who have been suspended for academic reasons and seek reinstatement must receive the approval of the academic dean of the school or college in which they intend to enroll. [If seeking reinstatement in the Missoula College, contact the Retention and Advising Coordinator at MC.] Typically, retroactive grade changes, dropped courses or withdrawals do not reverse the academic suspension status that is recorded on the transcript, unless there was an error or grading mistake.

Academic reinstatement is not automatic. The student must provide the reasons for previous poor academic performance along with a carefully prepared plan for improvement that is completed with the help of an academic advisor. A student denied reinstatement may appeal the denial in writing to the President of the University within ten days of receiving the notice of denial. The decision to deny reinstatement normally will not be reversed unless there is evidence the decision was made arbitrarily.

If a suspended and reinstated student has not attended UM for more than two years, the student must also complete an application for readmission through the Registrar's Office. The readmission form re-activates the student's record and, along with the reinstatement form, allows the student to register for courses.

### **Academic Forgiveness**

Effective Autumn Semester 2011

- A University of Montana – Missoula undergraduate, seeking their first undergraduate degree, who returns to the university after a minimum absence of three years and completes 30 credits of academic study with a minimum cumulative GPA of 2.5 is eligible for Academic Forgiveness.
- Academic Forgiveness allows a student who has met the requirements in statement #1 to select a prior semester or semesters he/she wishes to have excluded from calculation in the cumulative GPA. The semester(s) chosen must have occurred prior to his/her return to the university.
- Receiving Academic Forgiveness for a semester or semesters results in **all** credits and grades earned in the semester to be excluded from the student's GPA calculation. A student will not be allowed to select specific grades and credits to retain while excluding others earned within the same semester. The excluded courses and grades will remain on the transcript; however, they may not be used to fulfill any university requirements.
- Only University of Montana – Missoula grades and credits will be excluded.
- All excluded courses are still counted as attempted courses in determining if a student is meeting the Pace standard of the financial aid satisfactory academic progress (SAP) policy. If the terms being forgiven include courses a student previously passed the result could be that the student would now be out of compliance with the SAP policy and would have to do a financial aid appeal to have aid eligibility reinstated
- A student will be granted Academic Forgiveness only one time.
- Students who receive Academic Forgiveness will be bound by the University Catalog in effect at the time of their return to The University or any subsequent catalog in accordance with University policy.
- Students wishing to apply for Academic Forgiveness will contact the Registrar's Office for the appropriate form. The Registrar's Office will be responsible for verifying eligibility and notifying the student of approval.
- Other options exist for students who have not left the university, such as course repeat, withdrawals, and other mechanisms listed under academic policies in this catalog.

Students wishing to apply for Academic Forgiveness may obtain the form at the GrizCentral registration counter, or via the registrar's website at <http://www.umt.edu/registrar/>

### **Academic Support Services**

Many programs at The University of Montana-Missoula offer services to help students who are experiencing academic difficulty. Faculty academic advisors assist in academic planning and make appropriate referrals to other services as

necessary. Students with declared majors are assigned a faculty advisor by the relevant Department Chair. Students who are Undeclared, pre-Nursing, or a pre-major in Psychology, Communication Studies, or Business are assigned a professional advisor in the Undergraduate Advising Center located in the Lommasson Center.

Coursework is available to help students in specific areas. Developmental math and writing courses are delivered by the College of Technology, and include M 65 prealgebra, M 90 Introductory Algebra, M 95 Intermediate Algebra, and WRIT 95 Developmental Writing. Curriculum and Instruction 160 and AASC 101 focus on study skills, and Freshman Seminar UNC 101 and AASC 100 (Introduction to University Experience) provide an overview of university systems and processes. The Financial Aid Office, the Counseling Center, the Curry Health Center, the Career Services, and the Clinical Psychology Center provide one-to-one counseling to help with financial issues, personal concerns, and career and major choices.

Several tutoring programs are available to all students (<http://www.umt.edu/tutoring>). STUDY JAM provides early evening group study tables in the UC Commons for selected courses (e.g., Chemistry, Biology, Physics, Spanish, Economics, and Statistics). The Writing Center supports students in becoming more effective writers and provides tutoring at several locations across campus ([www.umt.edu/writingcenter](http://www.umt.edu/writingcenter); 406-243-2266). The Math Learning Centers provide tutoring at all levels of math coursework in two drop-in math tutoring centers. Math PiLOT oversees the ALEKS online placement testing for math and advises students who may be struggling in a math course. College of Technology students may receive tutoring in math, writing and a variety of other subjects through the Academic Support Center. The Counseling Center offers workshops on a variety of topics designed to enhance student academic performance.

For students who qualify, TRiO Student Support Services is a federally funded program offering academic support services, including one-on-one academic advising, career search and counseling (using a national career database), mentoring for Native American students, a two-credit study skills class, and tutoring at no cost. To qualify, a student must meet one of the following criteria: first-generation (neither parent has completed a four-year college degree), financial need based on family income (usually met if receiving a Pell grant), or a documented disability. For more information, visit TRiO at Lommasson Center 154, call 406-243-5032, or log on to <http://www.umt.edu/trioss/>.

The Academic Support Center (ASC) on the College of Technology campus offers a variety of services to support and enhance students' academic success. Students can receive tutoring in math, writing and numerous other areas. Skills assessments, accommodated test services and make-up testing are also offered at the ASC. Working with the Retention Coordinator students can develop study skills, participate in academic coaching and other student support activities, as well as complete the reinstatement process activities if necessary. For information related to these services, contact the ASC at 243-7826 or the Retention Coordinator at 243-7878.

### **Plagiarism Warning**

Plagiarism is the representing of another's work as one's own. It is a particularly intolerable offense in the academic community and is strictly forbidden. Students who plagiarize may fail the course and may be remanded to Academic Court for possible suspension or expulsion. (See Student Conduct Code that follows in this section of the catalog.)

Students must always be very careful to acknowledge any kind of borrowing that is included in their work. This means not only borrowed wording but also ideas. Acknowledgment of whatever is not one's own original work is the proper and honest use of sources. Failure to acknowledge whatever is not one's own original work is plagiarism.

### **Student Conduct Code**

The Student Conduct Code, embodying the ideals of academic honesty, integrity, human rights and responsible citizenship, governs all student conduct at The University of Montana-Missoula. Student enrollment presupposes a commitment to the principles and policies embodied in this Code. The Student Conduct Code sets forth University jurisdiction, student rights, standards of academic and general student conduct, disciplinary sanctions for breach of the standards of student conduct and procedures to be followed in adjudicating charges of both academic and general misconduct. The Vice President for Student Affairs is responsible for procedural administration of the Student Conduct Code for all general conduct. The Provost and Vice President for Academic Affairs is responsible for all academic conduct. Copies of the Student Conduct Code can be obtained from the offices of the Vice President for Student Affairs, the Provost and Vice President for Academic Affairs, Residence Life,

and Associated Students of The University of Montana-Missoula (ASUM). The Student Conduct Code also can be accessed from the internet at [http://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/student_conduct.php).

## General Information

### Maximum Credit Load

Generally, an undergraduate student should register for no more than 21 credits during a semester. The credit load would include physical education activity courses, and also remedial courses (those numbered below 100), credits from which do not count toward a certificate or degree.

Permission to enroll for more than the maximum credit load given above may be approved by the student's faculty advisor.

### Full-Time Student Defined

#### Undergraduate Students

Full Time:	12 or more enrolled credits
1/2 Time:	6 -11 enrolled credits
<1/2 Time:	5 or fewer enrolled credits
Not Enrolled:	0 enrolled credits (withdrawn/graduated, etc.)

#### Graduate Students

*Full Time:	9 or more enrolled credits
1/2 Time:	6 – 8 enrolled credits
<1/2 Time:	5 or fewer enrolled credits.
Not enrolled:	0 enrolled credits (withdrawn/graduated, etc.)

\* *One credit of PSYX 638 Clinical Psychology Internship per semester is equivalent to full-time enrollment for students in the Clinical Psychology Ph.D. Program.*

In most baccalaureate programs a student must earn at least 15 credits per semester to graduate in a four year period. One and two year programs usually require enrollment in between 15 and 19 credits per semester.

## Classification of Undergraduate Students

The undergraduate student is classified as a freshman, sophomore, junior or senior based on the number of credits earned. The student who has earned fewer than 30 credits is a freshman. The student who has earned at least 30 credits but fewer than 60 is a sophomore, and the student who has earned at least 60 credits but fewer than 90 credits is a junior. The student who has earned 90 or more credits is classified a senior.

## Dean's List (Honor Roll)

To qualify for the Dean's List, students must be undergraduates, must earn a semester grade average of 3.50 or higher, and receive grades of A or B in at least 9 credits. **No grades of C+, C, C-, D+, D, D-, F, NC or NCR are allowed.**

## Repeating a Course

Effective Autumn semester 2009, the following new course repeat fee structure was implemented:

- 1st repeat - \$25.00
- 2nd repeat - \$35.00
- 3rd repeat - \$50.00



The fee is assessed when a single course is repeated. The repeat fee is assessed for all students who repeat courses, not just those wanting to replace a grade for a course they took previously. Exemptions from the fee will be allowed for individuals with disabilities or financial hardship based upon recommendations from the Office of Disability Services or the Financial Aid Office.

Initial grades will be marked as repeated and remain on the transcript, but they will not be used to in the GPA calculation.

Grades of AUD, I, N, NC, NCR, NP, NF, W, WP, or WF may not be used to replace grades. An F grade will be used to replace grades. If the last grade received is an F, no credit is given for previous passing grades. All courses repeated remain on the permanent record but only the last grade received is used to determine credits earned. Only the last grade received is used in calculating the grade point average.

If students receiving federal financial aid repeat a course previously passed they can only receive financial aid to do so a second time. On a third attempt the course will not be counted in the enrollment status for determining aid eligibility.

If enrollment in a course is closed, a student who is repeating or auditing the course may be required by the instructor to drop the course. This rule grants enrollment preference to those students attempting to register for the course for the first time for credit. It is the responsibility of the student who is not allowed to remain in the course to formally drop the course to avoid a failing grade for that course.

Repeating a course in the School of Law is governed by a different policy. See the School of Law section of this catalog.

### **Credit By Examination**

Under certain circumstances, a currently registered student may receive credit by examination for a course in which he or she has not been regularly enrolled. The student must have a minimum cumulative grade average of 2.00 and an entering freshman must present a high school scholastic record equivalent to a 2.00 grade average to be eligible to earn credit by examination in any course.

Each school or department may determine those courses, if any, for which credit may be earned by examination. The dean of the school or the chair of the department must approve any arrangements prior to testing for such credit. On the successful completion of an examination, the department notifies the Registrar's Office. There are no fees for this type of credit by examination and grading may be credit/no credit or traditional letter grade.

Additional information can be found in the catalog under the Admissions, General Information section or at: <http://admissions.umt.edu/admissions/freshman/advanced-credits>

### **Course Numbering System**

- 001-099 Courses below college level. Credit not allowed toward a degree.
- 100-199 Primarily for freshmen.
- 200-299 Primarily for sophomores.
- 300-399 Primarily for juniors.
- 400-499 Primarily for seniors.
- 500-699 Primarily for graduate students.
- Senior (5th year) courses in Pharmacy are numbered 500 to 599.
- 800 cross-listed courses, used for secondary or other listing.

### **Undergraduates in Graduate Courses**

Post-baccalaureates and seniors holding a 3.0 (or greater) grade point average may, with consent of instructor, enroll in 500-level courses for undergraduate credit. Variance from these requirements cannot be petitioned.

### **Credit**

Credit is defined in terms of semester hours. In general, 1 semester hour credit is allowed for 1 hour of lecture each week of

the semester, or an average of 2 hours of laboratory each week of the semester.

### **Pre-requisites and Co-requisites**

"Pre-requisite" indicates that the course(s) or requirement(s) described must have been met/satisfactorily completed (grade of C- or better, unless otherwise specified in the course description in the catalog) before the student may take the course that requires the listed pre-requisite. Failure to complete satisfactorily the pre-requisite will result in the student being dropped from the course which requires the pre-requisite. If credit for a pre-requisite was earned via the Advanced Placement (AP) Examination Program, the AP score is recorded on a student's academic record with a grade of "CR\*" (prior to Autumn Semester 2012), or a score of AP3, AP4, or AP5 (Autumn Semester 2012 and thereafter). "Co-requisite" indicates the course or courses must be taken concurrently (in the same academic term) with the course described. In some cases a co-requisite may be completed prior to the semester in which the course that requires the co-requisite is taken.

### **Cross-listed and Equivalent Courses**

Some courses are offered jointly by two or more departments. In such cases, the course description will provide information for registration. As of Autumn Semester 2013, a select group of cross-listed courses were being offered as part of a continuing pilot study authorized by the Office of The Commissioner of Higher Education and the faculty of the university.

In certain cases, a course description indicates credit is not allowed for a particular course and for another course offered by a different department. These courses are very similar in content, although offered separately, and credit is not allowed toward a degree for both courses.

### **Technical Courses**

A few courses at the Missoula College are shown with a course number suffix of "T" and are primarily technical in nature. The courses will be required in a specific Certificate of Applied Science program or a specific Associated of Applied Science program or professional industry certificate offered by the College. Up to 15 credits of vocational-technical course work from regionally accredited schools are accepted as free elective in transfer toward an AA, AS, or baccalaureate program. Up to 20 credits may transfer for students completing an AAS degree. Refer to vocational technical credits in the Admissions section or Credit Maximums section.

### **Cancellation of Courses**

The University reserves the right to cancel any course due to low enrollment.

### **Common Course Numbering - Montana University System**

All universities, 4-year and 2-year colleges that are part of the Montana University System are now required to use the same course numbering for undergraduate courses. With common course numbering, transfer students can be reassured that they will receive credit for undergraduate courses taken at another Montana institution, as long as the admitting institution offers that same course. This transparency will make it easier for students to continue their higher education at any state-supported campus.

Effective Autumn Semester 2009, all units of the Montana University System (MUS) began to offer classes using new subject abbreviations and new numbers that are common across all MUS units. Subject areas and numbers continue to be renumbered as of the publication of this catalog. Information regarding Common Course Numbering at the University of Montana is available at : <http://www.umt.edu/newnumber/>

### **Final Examinations**

Final examinations for the semester are scheduled in two-hour segments, one for each course. The segments should be considered as class meetings to be treated by the instructor as he or she thinks educationally appropriate. The time scheduled for final examinations is the only time period during which final examinations are to be given. If an instructor elects not to give a final examination during the designated week, under no circumstances are final examinations to be given during the week

preceding the scheduled final examination days.

Students may seek relief from writing more than two examinations during the same day. Students who are scheduled for more than two examinations may contact the appropriate faculty to arrange an alternate testing time during the scheduled final examination period. If satisfactory arrangements cannot be made, the student should seek the assistance of his or her dean.

### **Transcript of Academic Record**

A transcript of a student's academic record may be obtained from the Registrar's Office in the Lommasson Center or the Registrar's Office at the College of Technology upon the written and signed request of the student. In compliance with federal and state laws designed to protect student privacy, transcripts are not released without the student's authorizing signature.

Transcripts are usually available within two to five working days after receipt of the signed request. There is a charge of \$3.00 for each official transcript. Payment must be received before transcripts are released. Transcripts and other services are withheld if the student owes a debt to the University. Special handling requests require extra fees. Students may order an academic transcript on-line for a small additional fee. Additional information regarding ordering options and fees may be viewed via the Registrar's Website.

A student who enrolled after summer semester 1991 may view his or her academic record via the Internet at <http://cyberbear.umt.edu>.

### **Associate of Applied Science, Associate of Arts and Certificate of Applied Science Admission**

The Associate of Applied Science and Certificate of Applied Science programs in the Missoula College are designed to lead an individual directly to employment in a specific career path. In some instances, particularly in allied health, the degree is a prerequisite for taking a licensing examination. Students may pursue a baccalaureate degree at the University of Montana after completing an AAS degree through a Bachelor of Applied Science degree plan. The Associate of Arts degree is a University of Montana transfer degree which offers students the opportunity to complete a 60 credit transfer degree toward completing a baccalaureate degree at the University of Montana or other accredited institutions of higher education.

### **Academic Eligibility**

To be eligible for admission, students must have graduated from an accredited high school or passed the GED. Students admitted to the Missoula College who wish to enroll in courses at the mountain campus must meet the admission requirements of the main campus.

### **How to Apply**

Applications are available from Enrollment Services-Admissions or the Missoula College by request or are available on the University website at <http://admissions.umt.edu/apply.html>.

An application for admission is complete when the Missoula College receives the credentials described below.

1. Application form. Applications must be completed and signed.
2. Application fee. The fee is \$30 or \$36 when applying on-line. This non-refundable application fee is payable once at the undergraduate level provided payment is followed by enrollment. Record of payment will remain on file for one year for students who do not enroll. The University of Montana-Missoula waives the application fee for students who have attended an affiliate campus: Montana Tech and the Missoula College, UM Helena College of Technology, and University of Montana-Western.
3. Proof of high school graduation/GED. An official high school transcript with graduation date or GED score report must be sent to the Missoula College.
4. All students are required to submit a completed Pre-Registration Immunization Form to the Curry Health Center two weeks prior to registration. It is important that the immunization record be complete and accurate and validated by a health official. Students born after December 31, 1956 must submit proof of immunization or titer against Rubella and measles (Rubeola). Students will not be allowed to register until the Curry Health Center has received proof of

immunization.

Critical Information Required Prior to Advising and Completion of Registration:

All students are required to take either the ACT, SAT or Compass-E-Write test and submit scores (associated with writing) to the Admissions Office. Montana students may submit the Montana University System Writing Assessment Score (MUSWA) in lieu of these tests.

In addition to providing the required placement scores for writing courses, the academic departments of the Missoula College require course placement information for math courses. Students must provide ALEKS placement score information or transfer course approval. This information is critical to the advising process and the student registration process; neither of which will be completed without the information being supplied prior to the process.

**When to Apply**

Applications are considered on a first come, first-served basis. The Missoula College will notify applicants of their status once their application has been processed.

**Bachelor of Applied Science Admission**

**Academic Eligibility**

Applicants must hold an Associate of Applied Science degree from an accredited institution with a minimum cumulative grade average of 2.5.

**How to Apply**

UM baccalaureate applications are available from Enrollment Services-Admissions or the Missoula College by request or are available on the University website at <http://admissions.umt.edu/apply>. Applicants should contact the Bachelor of Applied Science advisor at Missoula College, 406-243-7801. The applicant and advisor meet to discuss application procedures as well as degree plan identification and required approval.

Receipt of the following constitutes a complete application toward completing a B.A.S. degree:

1. Application Form. Applications must be complete and signed.
2. Official college/university transcripts. The student must supply a complete official transcript from each regionally accredited college or university attended.
3. Application Fee. The fee is \$30 or \$36 when applying online (if the applicant is new to The University of Montana system).
4. Immunization Form. All students are required to submit a completed Pre-Registration Immunization Form to the Curry Health Center two weeks prior to registration if the applicant is new or has been absent for more than 24 months from The University of Montana system.

**When to Apply**

Applications from students who hold an A.A.S. degree with a GPA of 2.5 are accepted on a continuing basis. Applicants in the process of completing the A.A.S. degree are encouraged to begin the application process during their final semester. Students are not, however, admitted until after the A.A.S. degree has been awarded.

**Bachelor Degree Admission – Entering Freshmen**

**Academic Eligibility**

The University continues to raise the academic standards required for full admission to Baccalaureate programs, and the process will continue in future years. For the 2013-14 academic year both in-state and out-of-state high school graduates will be offered full admission if they meet the requirements below.

Some departments reserve the right to set higher admission standards for their undergraduate programs. Applicants to these programs will be admitted to the appropriate pre-major program by Enrollment Services-Admissions. Application to the undergraduate degree program is an additional, separate process administered by the department and arranged for by the student seeking acceptance.

1. Graduation from a state accredited high school.
2. Successful completion of the following College Preparatory program:
  - Four years of English.
  - Three years of math, including Algebra I, Geometry and Algebra II (or the sequential content equivalent of these courses). Students are encouraged to take a math course in their senior year.
  - Three years of social studies, including one year global studies (i.e., world history or world geography), one year American history and one year of additional course work (i.e., government, psychology, economics).
  - Two years of laboratory science. One year must be earth science, biology, chemistry, or physics; the other year can be one of those sciences or another approved college prep laboratory science.
  - Two years chosen from the following: foreign language (preferably two years), computer science, visual and performing arts, or vocational education units.
3. Students must meet one of the following admissions requirements:
  - ACT composite of 22, **or**
  - SAT combined score of 1540, **or**
  - a 2.50 cumulative grade point average, **or**
  - class rank in the upper half of the graduating class.
  - Students whose tests or GPA are significantly below this level may be admitted on a conditional basis.
4. Students must meet a minimum Math Proficiency score of:
  - 22 on the ACT Math section or
  - 520 on the SAT Math section or
  - A score of 3 or above on the AP Calculus AB or BC Subject Exams. In lieu of the above requirement, students can complete a Rigorous High School Core that includes four years of math with grades of C or higher and three years of lab science or
  - 4 on the International Baccalaureate Calculus Exam.
5. Students must meet a minimum Writing Proficiency score of:
  - 18 on the Combined English/Writing section of the Optional Writing Test or a 7 on the Writing Subscore of the ACT; or
  - 440 on the Writing Section of the SAT or a 7 on the Essay the SAT; or
  - 3.5 on the Montana University System Writing Assessment; or
  - 3 on the AP English Language or English Literature Examination; or
  - 4 on the International Baccalaureate Language A1 Exam or
  - 50 on the CLEP Subject Exam in Composition.

### Home-Schooled Students

Information on admission requirements for home-schooled students or students who graduate from a non-accredited high school can be found at <http://admissions.umt.edu/admissions/freshman/alternative-admission>.

### Traditional-Age Freshmen with GED

GED freshmen are those students who have passed the GED and enter college within three years of the date they would have graduated from high school. Admission will be determined by current University of Montana criteria for GED freshmen. All GED freshmen applicants are required to take the ACT or SAT.

## Non-Traditional Freshmen

Non-traditional freshmen are those students who are over 21 years old and who did not enter college for a period of at least three years from the date of high school graduation. Admission will be determined by current University of Montana criteria for non-traditional students. Non-traditional freshmen will be admitted conditionally if test scores are not posted on the high school transcript or if a student has never taken the ACT or SAT.

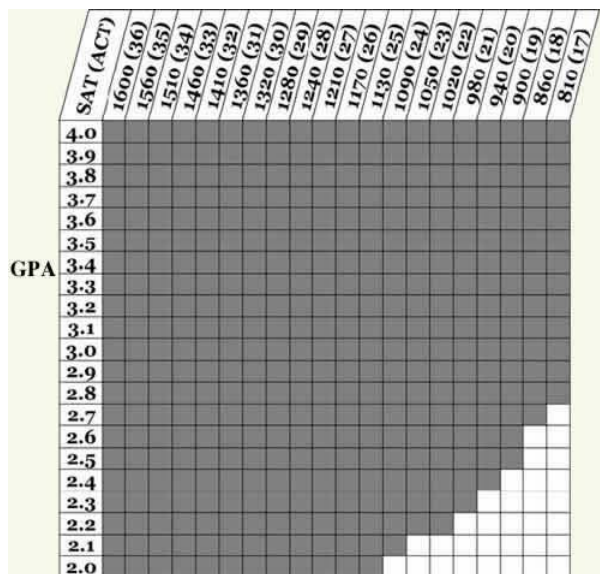
The following students are exempt from Standards 1, 2, 3, 4 and 5 above:

- Summer Only Students
- Part-time students taking seven or fewer college-level semester credits.

## Conditional Acceptance

Students who do not meet the admission requirements may be admitted on a conditional basis if the Admissions Committee determines that a student could be successful by taking advantage of the academic support services that are available. Students will be granted full admission after completing 24 credits with a grade point average of at least 2.0. Students are expected to complete the 24 credits within two semesters but must complete them within three semesters. In cases where academic preparation falls well below the admission standards listed above, applicants will be directed to the Missoula College where courses can be taken to strengthen their preparation for success at The University of Montana.

### Future trends in Admission Eligibility at UM



In future years, the academic criteria for full admission to Baccalaureate programs at The University will continue to rise. Students who fail to meet these stricter admission standards may be admitted on a conditional basis (see above).

## How to Apply

Applications for admission are available from Enrollment Services-Admissions by request or are available on the University website at <http://admissions.umt.edu/apply>. An application for admission is complete when Enrollment Services-Admissions receives the credentials described below.

1. *Application form.* Applications must be complete and signed.
2. *Application Fee.* The fee is \$30 or \$36 when applying online. This non-refundable fee is payable once at the undergraduate level provided payment is followed by enrollment. Record of payment will remain on file for one year for students who do not enroll. Applications are not processed prior to payment of this fee. The University of Montana-Missoula waives the application fee for students who have attended an affiliate campus: Montana Tech or Highlands College (former College of Technology) in Butte , Helena College (formerly Helena College of Technology, and University

of Montana-Western in Dillon.

3. *Test scores.* Official ACT or SAT results should be sent directly from the testing company or may be posted on the high school transcript.
4. *High School Student Self-Report form.* This form is part of the standard application form and is the basis for the initial admission decision.
5. *Final high school transcripts.* Transcripts should be submitted after graduation and must include a graduation date and final GPA. Information provided on the self-report form will be verified from this transcript.
6. *Immunization Form.* All students are required to submit a completed Pre-Registration Immunization Form to the Curry Health Center two weeks prior to registration. It is important that the immunization record be complete, accurate and validated by a health official.

### When to Apply

Applications and all required documents submitted by the following dates will receive priority consideration:

- March 1 - Fall semester
- November 15 - Spring semester

Applications received after the priority dates are considered on a space-available basis.

### Distance Education

The University of Montana provides the opportunity to apply as a Distance Education only student. Students who are interested in applying for this status must meet the University's general admission requirements for freshman and transfer students. This admission status is designed for students who are registering for online courses only and do not plan to take any courses on campus. When applying for this status, students are not required to provide proof of immunization or complete a medical History Form. Since Distance Education only students have some of the mandatory fees waived, they are not eligible for health insurance, services provided by the Curry Health Center, athletic event discounts or the Campus Recreation facilities.

Currently enrolled students or former University of Montana students must change their status by completing a *Distance Learning Change of Status Form*. This form is available at: [umonline.umt.edu/forms/change\\_request.php](http://umonline.umt.edu/forms/change_request.php)

### Former University of Montana-Missoula Students - Readmission

Students previously enrolled at The University of Montana-Missoula who have interrupted their enrollment for more than 24 months or more must submit an application for readmission. Applications for readmission may be obtained from the Registrar's Office, the Griz Central Registration Counter, Enrollment Services-Admissions (in (all in The Emma B. Lommasson Center (EL), or the Missoula College Registrar's Office

**Former undergraduate degree students who do not plan to change their status and who have attended another college/university since attending The University of Montana-Missoula, even if their absence from UM has been less than two years in duration, must submit college transcripts.**

Former students who are applying for readmission must comply with Immunization Requirements as listed in this catalog.

Former undergraduate students are **not** required to pay the undergraduate application fee of \$30.00 unless they are changing from an undergraduate status to a graduate status or vice versa. The application fee is paid only **once** at the undergraduate level. For additional information, contact the Registrar's Office at 406-243-2939 or visit us on the web at <http://www.umt.edu/registrar>.

### GED (General Educational Development)

A person who is not a graduate from an accredited high school may be eligible for admission by earning passing scores on the GED test. Passing scores are a minimum score of 35 on each test and an average score of 45. Effective Jan 1, 2002 passing

scores are a minimum score of 410 on each test and an average score of 450. GED students who have been out of high school for less than three years must also submit ACT or SAT scores. For additional information and test center locations in Montana, contact the Office of Public Instruction, Helena, MT 59601.

### **Graduate Nondegree Status**

Graduate nondegree status allows students who have not been formally admitted to a graduate degree program to receive graduate credit for courses.

Up to nine semester nondegree graduate credits (or the credits earned during a single semester, whichever is greater) may be applied toward a subsequent graduate degree program, with the approval of the student's program chair and the graduate dean. Acceptance as a graduate nondegree student does not imply future admission to a degree program.

Graduate nondegree students may take U/G courses for either graduate or undergraduate credit, as defined by the university catalog. Graduate credits will be assigned automatically unless a request for undergraduate credit is submitted to the Graduate School by the fifth week of the semester. Undergraduate credits taken as a graduate nondegree student cannot be applied to a subsequent graduate degree.

Applicants admitted as graduate nondegree students are NOT ELIGIBLE for federal financial aid. Graduate nondegree students are assessed the graduate level tuition and fees at the master's level rate for all credits taken.

Applicants must have earned a baccalaureate degree (or higher degree) from a regionally accredited college or university prior to enrollment in the graduate nondegree status.

Applicants seeking graduate nondegree status must apply online at [www.umt.edu/grad](http://www.umt.edu/grad) and pay a \$60 non-refundable application fee. Deadline for submitting a graduate nondegree application is prior to the fifteenth day of classes each semester.

### **Graduate Nondegree Readmission**

Students who previously attended The University of Montana in a graduate nondegree status and have not been enrolled for 24 months or more may use the graduate nondegree readmission form to reapply for the same status.

Graduate nondegree readmission forms can be downloaded from the Forms section of the Graduate School homepage: [www.umt.edu/grad](http://www.umt.edu/grad) Fromer graduate nondegree students applying for readmission pay a \$20 non-refundable application fee.

### **Graduate Degree**

Graduate degree admission is for candidates seeking to complete a Master's, Specialist, or Doctoral program at UM. Program information and deadlines are listed at: [www.umt.edu/grad/Programs](http://www.umt.edu/grad/Programs). Each academic department conducts the initial evaluation of completed application packets and submits the packets, with recommendations for admission or denial, to the Graduate School for final decisions.

Applicants seeking graduate status must apply online at: [www.umt.edu/grad/Apply](http://www.umt.edu/grad/Apply) and pay a \$60 non-refundable fee.

### **International Student Admission**

The University of Montana-Missoula Enrollment Services-Admissions Office will issue the Immigration Form I-20 (necessary for obtaining an F 1 student visa) to international applicants who are academically eligible for the undergraduate degree status (see above) and who supply complete credentials as described below. In certain situations an international applicant may not need an I- 20; in these cases, Enrollment Services-Admissions should be contacted for individual advice regarding admission status, academic eligibility, and admission requirements. International students are encouraged to submit ACT or SAT scores if available, but ACT or SAT scores are not required for admission.

### **How to Apply**



Receipt of the following credentials constitutes a complete international application for admission:

1. International application form. This form can be obtained by contacting Enrollment Services-Admissions. The form must be complete and signed. Applications are also available on the university website at <http://admissions.umt.edu/apply/html>.
2. \$30.00 paper application fee or \$36.00 on-line application fee (in US dollars). This non refundable fee is payable once at the undergraduate level when payment is followed by enrollment. In all other cases record of payment will remain on file for one year. Payment of this fee is expected prior to consideration of the application. The University of Montana-Missoula waives the application fee for students who have attended an affiliate campus: Montana Tech and the Division of Technology, Helena College of Technology, and Western Montana College.
3. Academic Credentials:
  1. Official or certified copies of non-U.S. academic credentials beginning with secondary school and continuing through the highest level of achievement.
  2. U.S. transcripts. Complete official transcripts showing all U.S. high school and college/university attendance.
4. Statement of Financial Support. The applicant must submit a certified statement from a bank or sponsor verifying that adequate financial resources are available to pay for the student's estimated expenses for the first year (tuition, fees, room, board, miscellaneous expenses, student health insurance, expenses of dependents, etc.). This estimated amount is adjusted annually and is available by contacting Enrollment Services-Admissions.
5. English Language Proficiency. An official score report showing one of the following:
  - 61 IBT (173 CBT or 500 PBT) on the Test of English as a Second Language (TOEFL).
  - 5.5 on the International English Language Testing System (IELTS).
  - 69 on the Michigan English Language Assessment Battery (MELAB)
  - SAT Writing Score of 440/ACT score of 18 on the Combined English/Writing section.

Those students who are citizens of countries where English is the native tongue need not submit proof of English language proficiency, unless English is not the student's native language. Students who have test scores below the minimum requirement may be eligible for conditional admission.

Any questions concerning the evidence of proficiency in English should be directed to Enrollment Services-Admissions. When the student arranges to take the TOEFL test, he or she should request that examination results be sent directly to Enrollment Services-Admissions, The University of Montana-Missoula, Missoula, Montana 59812. (Code N. 4489 00)

### **Conditional Admission**

International students who have not met the required test score and who meet all other admission requirements will be offered conditional admission. Conditionally admitted students study in an intensive program at The University of Montana-Missoula English Language Institute (ELI) on campus until the minimum English language proficiency is met or the student is recommended by ELI. After English proficiency is achieved, enrollment in regular university courses begins.

Medical History Record. All students are required to submit a completed Pre-Registration Immunization Form to the Curry Health Center two weeks prior to registration. It is required that the immunization record (for measles, rubella, diphtheria, tetanus and polio) be complete, accurate, and validated by a physician. Skin testing for tuberculosis will be required upon arrival through the Curry Health Center.

Visa Transfer Form. F 1 students transferring from another college or university in the U.S. must have this form completed by the foreign student advisor of the transfer school and returned to the UM Enrollment Services-Admissions Office. A new I-20 will be issued by UM once a transfer release date is entered in SEVIS (Student & Exchange Visitor Information System) by the current school.

### **When to Apply**

Applications and all required documents must be received by the following dates:

- Autumn Semester Deadline – July 15

- Spring Semester Deadline – December 15

Applications received after the deadline will be considered for admission for the next term.

### **Transfer Student Admission**

#### **Academic Eligibility**

Undergraduate degree applicants who have graduated from high school or have earned a GED and have attempted twelve or more college level credits must meet the academic eligibility requirements described here. Any undergraduate degree transfer applicant who has attempted fewer than twelve college level credits must meet the academic eligibility requirements for freshman mentioned in the freshman admission section.

Applicants must present a 2.00 (C) cumulative grade average (on a 0-4 scale) for all college level work attempted to be eligible for admission.

#### **How to Apply**

Applications for admission are available from Enrollment Services-Admissions by request or are available on the University website at <http://admissions.umt.edu/apply>.

Receipt of the following credentials in Enrollment Services-Admissions constitutes a complete application for admission:

1. Application Form. Applications must be complete and signed.
2. Application Fee. The fee is \$30.00 or \$36 when applying on-line. This non-refundable fee is payable once at the undergraduate level provided payment is followed by enrollment. Record of payment will remain on file for one year for students who do not enroll. An application cannot be considered prior to payment of this fee. The University of Montana-Missoula waives the application fee for students who have attended an affiliate campus: Montana Tech, Montana Tech College of Technology, Helena College of Technology, and University of Montana Western.
3. Official College/University Transcripts. The student must supply a complete official transcript from each regionally accredited college or university attended, and from each college or university attended holding candidate status for regional accreditation. Applications from students who are enrolled at the transfer school while applying to UM will be considered for admission based on current official transcripts showing all academic work completed and posted to date. The final official transcript must be on file before the second registration at UM. Academic eligibility will be reviewed upon receipt of the complete transcript.
4. Immunization Form. All students are required to submit a completed Pre-Registration Immunization Form to the Curry Health Center two weeks prior to registration. It is important that the immunization record be complete and accurate and validated by a health official. Students born after December 31, 1956 must submit proof of immunization or titer against Rubella and measles (Rubeola). Students will not be allowed to register until the Curry Health Center has received proof of immunization.

#### **When to Apply**

Applications and all required documents submitted by the following dates will receive priority consideration:

- March 1 - Autumn semester
- November 15 - Spring semester

Applications received after the priority dates are considered on a space-available basis.

#### **Undergraduate Nondegree Status**

An applicant who wishes to pursue studies for his or her personal growth and who does not wish to work toward a formal degree at The University of Montana-Missoula may apply as an undergraduate nondegree student. This option is not available

to freshmen unless they are applying to the Missoula College. **Each applicant should understand that acceptance to this category does not constitute acceptance into a degree granting program.** Applicants admitted as undergraduate nondegree students are not eligible for financial aid.

#### Academic Eligibility

Each applicant must certify on the application form that he or she has graduated from a high school that is fully accredited by its state department of education, or has passed the General Educational Development (GED) test. To be considered for nondegree status, a student must have attempted 12 or more college level credits. This category is not open to students currently on academic suspension from The University of Montana.

If a person is admitted as an undergraduate non-degree student and later wishes to change to a degree program, he or she will be required to file an application for readmission, furnish the required supporting credentials and meet the regular admissions standards for the intended program. Readmission applications are available from Enrollment Services-Admissions, the Missoula College, or the Registrar's Office.

#### How to Apply

Applications for admission are available from Enrollment Services-Admissions by request or are available on the University website at <http://admissions.umt.edu/apply>.

Receipt of the following credentials in Enrollment Services-Admissions or the Missoula College constitutes a complete application for admission to the undergraduate nondegree status:

1. Application form. Applications must complete and signed.
2. Application fee. The fee is \$30.00 or \$36 when applying on-line. This non-refundable fee is payable once at the undergraduate level provided payment is followed by enrollment. Record of payment will remain on file for one year for students who do not enroll. An application cannot be considered prior to payment of this fee. The University of Montana-Missoula waives the application fee for students who have attended an affiliate campus: Montana Tech and the Division of Technology, Helena College of Technology, and University of Montana-Western.
3. Immunization Form. All applicants are required to submit a completed Pre-Registration Immunization Form to the Curry Health Center two weeks prior to registration. The form must be complete, accurate and validated by a health official.

#### When to Apply

Applications and all required documents submitted by the following dates will receive priority consideration:

- March 1 - Autumn semester
- November 15 - Spring semester

Applications received after the priority dates are considered on a space-available basis.

#### Areas of Study

- A |
- B |
- C |
- D |
- E |
- F |
- G |
- H |
- I |
- J |

L |  
 M |  
 N |  
 O |  
 P |  
 R |  
 S |  
 T |  
 U |  
 V |  
 W |  
 Z

## A

Accounting - B.S. in Business Administration, M.Acct.  
 Accounting Information Systems - certificate  
 Accounting Technology - A.A.S.  
 Administrative Management - A.A.S.  
 Administrative Systems Management - undergraduate minor  
 African-American Studies - undergraduate minor  
 Alternative Dispute Resolution - certificate  
 American Indian Law - certificate  
 American Politics - option in B.A., Political Science  
 Analytical/Environmental Chemistry - option in M.S. and Ph.D., Chemistry  
 Anthropology - B.A., M.A., Ph.D.; undergraduate minor  
 Applied Geoscience - option in Ph.D., Geosciences  
 Applied Linguistics - option in M.A., Linguistics  
 Applied Mathematics - option in B.A., Mathematics  
 Applied Science - B.A.S.  
 Aquatic - option in B.S., Wildlife Biology and in B.S., Wildland Restoration  
 Arabic Studies - undergraduate minor  
 Archaeology - option in B.A., Anthropology  
 Art - B.A., B.F.A., M.A., M.F.A., Teacher preparation  
 Art History/Criticism - undergraduate minor  
 Astronomy - option in B.A., Physics; undergraduate minor  
 Athletic Training - B.S., M.A.T.

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## B

Biochemistry - B.S.  
 Biochemistry and Biophysics - M.S., Ph.D.  
 Bioethics - certificate, Psychology  
 Biology - B.A., teacher preparation; undergraduate minor  
 Biomedical Sciences - Ph.D.  
 Building Maintenance - certificate  
 Business Administration - M.B.A.  
 Business Administration & Law - dual degree program, M.B.A., J.D.  
 Business Administration & Pharmacy - dual degree program, M.B.A., Pharm.D.  
 Business Administration & Physical Therapy - dual degree program, M.B.A., D.P.T.

⌄ **Business Education** - teacher preparation

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## C

⌄ **Cartography and G.I.S.** - option in M.S., Geography

⌄ **Carpentry** - certificate; A.A.S.

⌄ **Cellular and Developmental Biology** - Option in Ph.D., Integrative Microbiology and Biochemistry

⌄ **Cellular and Molecular Biology** - option in B.A., Biology

⌄ **Cellular, Molecular, and Microbial Biology** - M.S., Ph.D.

⌄ **Central and Southwest Asian Studies** - B.A., undergraduate minor

⌄ **Chemistry** - B.A., B.S., M.A., M.S., Ph.D., undergraduate minor, teacher preparation

⌄ **Chinese** - undergraduate minor

⌄ **Classical Civilization** - option in B.A., Classics, undergraduate minor

⌄ **Classical Languages (Greek & Latin)** - option in B.A., Classics

⌄ **Classics** - B.A.

⌄ **Climate Change Studies** - Minor

⌄ **Clinical Mental Health Counseling** - option, M.A., Counselor Education

⌄ **Clinical Psychology** - option in M.A. and Ph.D., Psychology

⌄ **Combinatorics and Optimization** - option in B.A., Mathematics

⌄ **Communication Studies** - B.A., M.A., undergraduate minor

⌄ **Communication and Human Relationships** - option in B.A., Communication Studies

⌄ **Communicative Sciences and Disorders** - B.A.

⌄ **Community and Environmental Planning** - option in B.A. and M.S., Geography

⌄ **Community Health** - option in B.S. and M.S. in Health and Human Performance

⌄ **Comparative Literature** - non-degree advising program

⌄ **Composition** - option M.M. in Music

⌄ **Computational Physics** - option in B.A., Physics

⌄ **Computer Aided Design** - certificate

⌄ **Computer Applications** - undergraduate minor

⌄ **Computer Science** - B.S., M.S., undergraduate minor

⌄ **Computer Science-Mathematical Sciences** - B.S.

⌄ **Computer Support** - certificate, option in A.A.S., Accounting Technology

⌄ **Counselor Education** - M.A., Ed.S.

⌄ **Counselor Education and Supervision** - Ed.D.

⌄ **Creative Writing** - M.F.A.; option in B.A., English

⌄ **Criminology** - option in B.A. and M.A., Sociology

⌄ **Culinary Arts** - certificate

⌄ **Cultural and Ethnic Diversity** - option in B.A., Anthropology

⌄ **Cultural Heritage** - option in M.A., Anthropology

⌄ **Cultural Heritage Studies and Applied Anthropology** - option in Ph.D., Anthropology

⌄ **Cultural Studies** - option in B.A., and minor, French

⌄ **Curriculum and Instruction** - M.Ed., Ed.D.

⌄ **Curriculum Studies** - option in M.Ed., Curriculum and Instruction

⌄ **Customer Relations** - certificate

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## D

⌄ **Dance** - B.A., B.F.A.; undergraduate minor, teacher preparation

⌄ **Dance with Specialization in Education** - minor

⌄ **Diesel Equipment Technology** - A.A.S.

⌄ **Digital Marketing** - certificate

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## E

⌄ **Earth Science Education** - option in B.S., Geosciences, teacher preparation

⌄ **East Asian Studies** - B.A.

⌄ **Ecology and Organismal Biology** - option in B.A., Biology

⌄ **Economics** - B.A., M.A., undergraduate minor, teacher preparation

⌄ **Ecosystem Management** - M.E.M.

⌄ **Education** - B.A.

⌄ **Educational Leadership** - M.Ed., Administrative Licensure, and Ed.D.

⌄ **Electronics Technology** - A.A.S.

⌄ **Elementary Education** - option in B.A. in Education; option in M.Ed. in Curriculum and Instruction

⌄ **Energy Technology** - A.A.S., certificate of Applied Science

⌄ **English** - B.A., M.A., undergraduate minor, teacher preparation

⌄ **English as a Second Language** - certificate, teacher preparation

⌄ **English Teaching** - option in B.A. and M.A., English

⌄ **Entertainment Management** - certificate

⌄ **Entrepreneurship and Small Business Management** - certificate

⌄ **Entrepreneurship** - option in A.A.S, Management

⌄ **Environmental Chemistry** - option in B.S., Chemistry

⌄ **Environmental Ethics** - option in M.A., Philosophy

⌄ **Environmental and Natural Resources Law** - certificate

⌄ **Environmental Science and Natural Resource Journalism** - M.A.

⌄ **Environmental Studies** - B.A., M.S., undergraduate minor

⌄ **Environmental Studies & Law** - Dual degree program, M.S., J.D.

⌄ **Exercise Science** - option in B.S. and M.S., Health and Human Performance

⌄ **Experimental Psychology** - option in M.A. and Ph.D., Psychology

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## F

⌄ **Fiction** - option in M.F.A., Creative Writing

⌄ **Field Ecology** - option in B.A., Biology

⌄ **Film Studies** - option in B.A., undergraduate minor, English

⌄ **Finance** - B.S. in Business Administration

⌄ **Fine Arts, Integrated Arts and Education** - M.A.

⌄ **Fish and Wildlife Biology** - Ph.D.

⌄ **Food Service Management** - A.A.S.

⌄ **Forensic Anthropology** - option in B.A. and M.A., Anthropology

⌄ **Forensic Chemistry** - option in B.S., Chemistry

⌄ **Forensic Studies** - Certificate

⌄ **Forest Operations and Applied Restoration** - option in B.S. in Forestry

⌄ **Forest Resources Management** - option in B.S. in Forestry

⌄ **Forestry** - B.S., M.S., Ph.D.

⌄ **French** - B.A., option in M.A., Modern Languages and Literatures, undergraduate minor, teacher preparation

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## G

- **General** - non-degree advising program
- **General Humanities** - option in B.A., Liberal Studies
- **General Studies** - A.A.
- **Genetics and Evolution** - option in B.A., Biology
- **Geography** - B.A., B.S., M.A., M.S., undergraduate minor, teacher preparation
- **Geosciences** - B.S., M.S., Ph.D.
- **German** - B.A., option in M.A., Modern Languages and Literatures, undergraduate minor, teacher preparation
- **Gerontology** - undergraduate minor
- **GIS Science and Technology** - certificate
- **Global Public Health** - undergraduate minor
- **Government** - teacher preparation

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## H

- **Health and Human Performance** - B.S., M.S., teacher preparation
- **Health Enhancement** - option in B.S. Health and Human Performance
- **Health Information Coding Specialty** - option in A.A.S., Medical Information Technology
- **Health Information Technology** - certificate
- **Health Professions** - option in B.S., Biochemistry
- **Heavy Equipment Operation** - certificate
- **Historic Preservation** - certificate
- **History** - B.A., M.A., Ph.D., undergraduate minor, teacher preparation
- **History Education** - option in B.A., History
- **History-Political Science** - B.A.
- **Honors College** - non-degree advising program
- **Human and Family Development** - undergraduate minor
- **Human Biological Sciences** - option in B.A., Biology

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## I

- **Individual Interdisciplinary Studies Program** - Ph.D.
- **Inequality and Social Justice** - option in B.A. and M.A., Sociology
- **Information Systems Management** - option in A.A.S., Information Technology
- **Information Technology** - A.A.S.
- **Inorganic Chemistry** - option in M.S. and Ph.D., Chemistry
- **Intercultural Youth and Family Development** - M.A.
- **Interdisciplinary Studies** - M.I.S.
- **International Business** - B.S.
- **International Conservation and Development** - option in M.S., Resource Conservation
- **International Development Studies** - undergraduate minor
- **International Relations and Comparative Politics** - option in B.A., Political Science
- **International Field Geosciences** - B.S., joint degree with University College Cork (Ireland), joint degree with Potsdam University (Germany)
- **Irish Studies** - undergraduate minor; English

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## J

- **Japanese** - B.A., undergraduate minor

◊ **Journalism** - B.A. in Journalism, M.A.

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## L

- ◊ **Latin** - option in B.A., Classics, undergraduate minor, teacher preparation
- ◊ **Latin American Studies** - undergraduate minor
- ◊ **Law** - J.D.
- ◊ **Law & Business Administration** - dual degree program, J.D., M.B.A.
- ◊ **Law & Environmental Studies** - dual degree program, J.D., M.S.
- ◊ **Law & Public Administration** - dual degree program, J.D., M.P.A.
- ◊ **Liberal Studies** - B.A., undergraduate minor
- ◊ **Library Media Services** - option in M.Ed., Curriculum and Instruction; (non-teaching) undergraduate minor; teacher preparation
- ◊ **Linguistics** - M.A.; option in B.A. and M.A., and undergraduate minor, Anthropology; option in B.A., English; option in B.A., French
- ◊ **Literacy** - teacher preparation
- ◊ **Literacy Education** - option in M.Ed., Curriculum and Instruction
- ◊ **Literature** - option in B.A. and M.A., English

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## M

- ◊ **Management** - B.S. in Business Administration, A.A.S.
- ◊ **Management Information Systems** - B.S. in Business Administration
- ◊ **Marketing** - B.S. in Business Administration
- ◊ **Materials Science** - Ph.D.
- ◊ **Math Education** - option in B.A., Mathematics
- ◊ **Mathematics** - B.A., M.A., Ph.D., undergraduate minor, teacher preparation
- ◊ **Mathematical Sciences-Computer Science** - B.S.
- ◊ **Media Arts** - B.A., B.F.A., M.F.A.,; undergraduate minor
- ◊ **Medical Administrative Assisting** - option in A.A.S., Medical Information Technology
- ◊ **Medical Anthropology** - option in B.A., Anthropology
- ◊ **Medical Assisting** - A.A.S.
- ◊ **Medical Information Technology** - A.A.S.
- ◊ **Medical Reception** - certificate
- ◊ **Medical Technology** - B.S. in Medical Technology
- ◊ **Medical Transcription** - option in A.A.S., Medical Information Technology
- ◊ **Medicinal Chemistry** - M.S., Ph.D.
- ◊ **Microbial Ecology** - option in B. S. in Microbiology
- ◊ **Microbial Evolution and Ecology** - option in Ph.D., Integrative Microbiology and Biochemistry
- ◊ **Microbiology** - B.S. in Microbiology, M.S., undergraduate minor
- ◊ **Microbiology and Immunology** - option in Ph.D., Integrative Microbiology and Biochemistry
- ◊ **Military Studies** - undergraduate minor
- ◊ **Modern Languages and Literatures** - M.A.
- ◊ **Molecular Biology and Biochemistry** - option in Ph.D., Integrative Microbiology and Biochemistry
- ◊ **Mountain Studies** - undergraduate minor
- ◊ **Music** - B.A., B.M., B.M.E., M.M.; undergraduate minor, teacher preparation

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## N



- ◌ **Native American Studies** - B.A., undergraduate minor
- ◌ **Natural History** - option in B.A., Biology
- ◌ **Natural Resource Conflict Resolution** - interdisciplinary graduate certificate
- ◌ **Nature-Based Tourism** - option in B.S., Parks, Tourism & Recreation Management
- ◌ **Network Management** - option in A.A.S., Information Technology
- ◌ **Neuroscience** - M.S., Ph.D.
- ◌ **Non-fiction** - option in M.F.A., Creative Writing
- ◌ **Nonprofit Administration** - undergraduate minor

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## O

- ◌ **Organic Chemistry** - option in M.S. and Ph.D., Chemistry
- ◌ **Organismal Biology and Ecology** - M.S., Ph.D.
- ◌ **Organizational Communication** - option in B.A., Communication Studies

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## P

- ◌ **Paralegal Studies** - A.A.S.
- ◌ **Parks, Tourism, & Recreation Management** - B.S.
- ◌ **Performance** -option in M.M., Music
- ◌ **Pharmaceutical Sciences** - M.S.
- ◌ **Pharmacology** - option in B.S., Chemistry
- ◌ **Pharmacy** - Pharm.D.
- ◌ **Pharmacy & Business Administration** - dual degree program, Pharm.D., M.B.A.
- ◌ **Pharmacy Technology** - certificate
- ◌ **Philosophy** - B.A., M.A., undergraduate minor
- ◌ **Physical Chemistry** - option in M.S. and Ph.D., Chemistry
- ◌ **Physical Geography** - option in B.S., Geography
- ◌ **Physical Therapy** - D.P.T.
- ◌ **Physical Therapy and MBA** - dual degree program, D.P.T., M.B.A
- ◌ **Physics** - B.A., undergraduate minor, teacher preparation
- ◌ **Poetry** - option in M.F.A., Creative Writing
- ◌ **Political Science** - B.A., M.A., undergraduate minor
- ◌ **Political Science-History** - B.A.
- ◌ **Practical Nursing** - A.A.S.
- ◌ **Pre-Communication Studies** - non-degree advising program
- ◌ **Pre-Education** - non-degree advising program
- ◌ **Pre-Engineering** - non-degree advising program
- ◌ **Pre-Law** - non-degree advising program
- ◌ **Pre-Medical Sciences** - non-degree advising program
- ◌ **Pre-Media Arts** - non-degree advising program
- ◌ **Pre-Nursing** - non-degree advising program
- ◌ **Psychology** - B.A., M.A., Ph.D., undergraduate minor, teacher preparation
- ◌ **Public Administration** - M.P.A., option in B.A., Political Science
- ◌ **Public Administration and Law** - dual degree program, M.P.A., J.D
- ◌ **Public and Community Health Sciences** - certificate; M.P.H.
- ◌ **Public Law** - option in B.A., Political Science
- ◌ **Pure Mathematics** - option in B.A., Mathematics

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## R

- ◌ **Radio-Television Production** - B.A. in Radio-Television
- ◌ **Radiologic Technology** - A.A.S.
- ◌ **Recreation Management** - M.S.
- ◌ **Recreation Resources Management** - option in B.S. in Parks, Tourism & Recreation Management.
- ◌ **Recreational Power Equipment** - certificate
- ◌ **Registered Nursing** - A.S.
- ◌ **Religious Studies** - option in B.A., Liberal Studies
- ◌ **Research Psychology** - option in B.A., Psychology
- ◌ **Resource Conservation** - B.S., M.S.
- ◌ **Respiratory Care** - A.A.S.
- ◌ **Rhetoric and Public Discourse** - option in B.A., Communication Studies
- ◌ **Rural and Environmental Change** - option in B.A. and M.A., Sociology
- ◌ **Russian** - B.A., undergraduate minor, teacher preparation
- ◌ **Russian Studies** - undergraduate minor

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- ◌ **Sales and Marketing** - certificate.; option in A.A.S., Management
- ◌ **School Counseling** - option in M.A., Counselor Education
- ◌ **School Psychology** - Ed.S.; option in Ph.D., Psychology
- ◌ **Science, General** - Teacher preparation
- ◌ **Secondary Education** - option in M.Ed., Curriculum and Instruction
- ◌ **Social Science, Comprehensive** - teacher preparation
- ◌ **Social Work** - B.A., M.S.W.
- ◌ **Sociology** - B.A., M.A., undergraduate minor, teacher preparation
- ◌ **South and Southeast Asian Studies** - undergraduate minor, Liberal Studies
- ◌ **Spanish** - B.A., option in M.A., Modern Languages and Literatures, undergraduate minor, teacher preparation
- ◌ **Special Education** - Teacher preparation
- ◌ **Speech Language Pathology** - M.S.
- ◌ **Statistics** - option in B.A., Mathematics
- ◌ **Studio Art** - undergraduate minor
- ◌ **Surgical Technology** - A.A.S.
- ◌ **Systems Ecology** - M.S., Ph.D.

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## T

- ◌ **Teaching Middle School Mathematics** - M.A.
- ◌ **Technical Communication** - post-baccalaureate certification, M.S.
- ◌ **Terrestrial** - option in B.S. Wildlife Biology, and B.S., Wildland Restoration
- ◌ **TESOL/Applied Linguistics** - certificate
- ◌ **Theatre** - B.A., B.F.A., M.A., M.F.A.; undergraduate minor, teacher preparation
- ◌ **Toxicology** - M.S., Ph.D.

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W

- **Welding Technology** - certificate; A.A.S.
- **Wilderness Management** - certificate
- **Wilderness Studies** - undergraduate minor
- **Wildland Fire Sciences and Management** - undergraduate minor
- **Wildland Restoration** - B.S., undergraduate minor
- **Wildlife Biology** - B.S., M.S., undergraduate minor
- **Women's and Gender Studies** - option in B.A., Liberal Studies; undergraduate minor; certificate

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### General Admission Information

#### Advanced Placement (AP) Program/College Level Examination Program (CLEP)

College credit may be granted based on achievement in college level high school courses, provided the University has received satisfactory scores from the College Level Entrance Examination Program (CLEP) or the Advanced Placement Program (AP) examinations.

It should not be assumed that credit granted by other colleges/universities would be allowed by UM. Specific questions regarding the Advanced Placement Program should be directed to Enrollment Services-Admissions.

The University policy for awarding credit on the basis of AP/CLEP is available at: <http://admissions.umt.edu/admissions/freshman/advanced-credits>

#### International Baccalaureate

The University of Montana recognizes IB achievement and grants college credit provided the University has received satisfactory scores from the International Baccalaureate Program. University policy on awarding IB credit can be found at <http://admissions.umt.edu/admissions/freshman/advanced-credits>.

#### Foreign Language Placement

Transfer credit is not granted for high school foreign languages. Placement testing is done by the Department of Modern and Classical Languages and Literatures to determine appropriate class placement for entering students.

#### Immunization Requirements

Montana state law requires postsecondary students to provide proof of immunization. Students must complete the **Pre-Registration Immunization Requirements** form and return the form to the Curry Health Center prior to orientation and registration.

**Registration cannot be completed without this documentation.** A Pre-Registration Immunization Requirements form is sent with the admission acceptance letter. For additional information, visit <http://life.umt.edu/curry/>.

#### High School Pilot Program

Area high school juniors and seniors of outstanding ability can enroll in University classes under the High School Pilot Program. Students must have approval from their high school counselor/principal and parent/guardian if under age 18. High school students earn college credit, receive an early introduction to University opportunities and are able to develop skills and knowledge beyond the high school level. For more information, contact the Coordinator of the High School Pilot Program,

Enrollment Services-Admissions, Lommasson Center 101, The University of Montana-Missoula, Missoula, MT 59812 or phone (406) 243-6266. For opportunities in the Missoula College, phone (406) 243-7828.

### **Dual Credit Program**

The Dual Credit Program enables high school juniors and seniors of outstanding ability to earn college credit in certain high school courses. Students must have approval from their high school counselor/principal and parent/guardian if under age 18. For information, contact the Missoula College at (406) 243-7828.

### **International Student Exchange Program (ISEP)**

The University of Montana is a member of the International Student Exchange Program (ISEP), which allows University of Montana students to spend a semester, a year, or a summer abroad at one of ISEP's 141 member institutions in 42 foreign countries. ISEP offers reciprocal exchanges (students pay their home tuition, room and board, and create a space for an incoming international student) and ISEP-Direct programs (students pay a program fee covering tuition, room and board through the University of Montana to ISEP). Other expenses for which the student is responsible include: books and supplies, local transportation, round-trip airfare, or personal expenses.

For information on ISEP, please contact International Programs, International Center, The University of Montana-Missoula, Missoula, MT 59812 or phone (406) 243 2288.

### **National Student Exchange (NSE)**

The University of Montana-Missoula participates in the National Student Exchange (NSE) program with 190 other state colleges and universities. This program offers students the opportunity to become better acquainted with different social and educational patterns in other areas of the United States. NSE encourages students to experience new life and learning styles, appreciate differing cultural perspectives, learn more about themselves and others and broaden their educational backgrounds through specialized courses or unique programs which may not be available on the home campus. Qualified students may participate in the exchange program for up to one academic year. For more information, contact the Coordinator of the National Student Exchange Program, Enrollment Services-Admissions, Lommasson Center 101, The University of Montana-Missoula, Missoula, MT 59812 or phone (406) 243-6266. Find more information at <http://umt.edu/nse>.

### **Special Admission Committee**

A special admission committee reviews applications from students who do not meet the regular admission standards.

### **Enrollment Limitation**

The University of Montana-Missoula may deny or condition admission, readmission, or continuing enrollment of any individual who, in the judgment of the University, presents an unreasonable risk to the safety and welfare of the campus and persons thereon. In making such judgment, the University may, among other things, take into account the individual's history and experience relative to (a) violence and destructive tendencies, (b) behavior on other college campuses, and (c) any rehabilitative therapy the individual may have undergone.

### **The University of Montana-Missoula adopts the following Admission Review Procedures:**

The Assistant Vice President for Enrollment, the Dean of the Graduate School or the Chair of the Admissions Committees of the various professional schools at The University of Montana-Missoula shall be responsible for the administration of the Admissions Review procedures established to implement Board of Regents policy. When the responsible admissions officer has reason to believe an applicant may present an unreasonable risk to the safety and welfare of the campus and persons thereon, additional information regarding the applicant's background and experiences shall be requested. No applicant's admission may be barred automatically, solely by reason of a criminal conviction, if state supervision has terminated, or solely by reason of a youth court adjudication. The responsible admissions officer may request additional information in the following instances: (1) When an applicant has been convicted of a felony; (2) When an applicant has been adjudicated as a danger to others or to self; (3) When an applicant has been suspended or expelled for disciplinary reasons from other educational

institutions, either before or after the applicant has been accepted at The University of Montana-Missoula; (4) When, on the basis of other facts, the Assistant Vice President for Enrollment or other responsible officer has reason to believe an applicant may present an unreasonable risk to the safety and welfare of the campus and persons thereon.

After obtaining additional information, the responsible admissions officer may admit the applicant or refer the application to the Admissions Review Committee for review and recommendation.

### **Evaluation of Transfer Credits**

Evaluation of transfer credits is determined by Enrollment Services-Admissions at the time of admission. The evaluation is included in the acceptance packet and in the advising materials distributed during orientation. All college-level credits from regionally accredited colleges and universities will be accepted for transfer. Credits from colleges or universities that are candidates for regional accreditation will be accepted only after the student has successfully completed twenty semester credits at UM. Course work from unaccredited schools is not accepted or evaluated unless an individual exception is requested by the student and approved by a committee composed of the Academic Vice President, Assistant Vice President for Enrollment and the Registrar.

Enrollment Services-Admissions determines whether or not courses are college-level, the appropriate grading and credit conversion and the applicability of the transfer courses to UM's general education requirements. Transfer courses graded C- or above will count toward general education and major, minor, option or certificate requirements. Transfer courses with grades of D or D- transfer as elective credit. The student's major department may further evaluate the applicability of transfer courses to the student's selected program of study. College-level courses which do not have an equivalent at UM will be accepted as elective credits.

Up to 15 credits of vocational-technical course work from regionally accredited schools are accepted as free electives in transfer toward an AA, AS, or baccalaureate program. Up to 20 credits may transfer for students completing an AAS degree. Missoula College technical courses are designated by a course number suffix of "T."

Elective credit may be given for military courses according to the recommendations in the American Council (ACE) Service Guide. Elective credit may also be given for training programs recommended by the ACE Guide.

The University of Montana database of courses transferable from colleges and universities is available on the web at <http://admissions.umt.edu/admissions/transfer/transfer-credits>.

Students who wish to appeal a decision regarding acceptance of transfer credit should contact Enrollment Services-Admissions to receive information on the appeal process.

### **Evaluation of Transfer Credit-Missoula College**

Missoula College students must submit official transcripts for evaluation. If a student feels that a course taken at another institution may substitute for a specific Missoula College course, the evaluation will be done by the associate dean and the chair of the department of the equivalent course. Transfer courses graded C- or above will count toward general education requirements. Transfer courses with grades of D or D- transfer as elective credit. The student's major department may require a grade above C- to meet specific major requirements.

### **Western Interstate Commission for Higher Education**

The Western Interstate Commission for Higher Education's Professional Student Exchange Program enables students in thirteen western states to enroll in out of state professional programs when those programs are not available in their home states. Exchange students receive preference in admission. They pay reduced levels of tuition: for most students, resident tuition in public institutions or reduced standard tuition at private schools. The home state pays a support fee to the admitting schools to help cover the cost of students' education.

The following professional programs are not available in Montana but are supported by the Montana WICHE program. They are dentistry, medicine, occupational therapy, optometry, osteopathic medicine, podiatry, public health and veterinary

medicine.

The Certifying Officer for the State of Montana can be contacted for specific details about the program. WICHE Student Exchange Program, Montana University System, 2500 Broadway, Helena, MT 59620. (406)444-6570 or Fax: (406) 444-1469.

### **Western Undergraduate Exchange Program (WUE)**

The Western Undergraduate Exchange (WUE) Scholarship program at The University of Montana-Missoula is a highly competitive academic merit based scholarship which strictly monitored. Awards are decided upon a comprehensive review of a student's cumulative G.P.A. and test scores. When undergraduate students apply and are admitted from a WUE state they are automatically considered for the WUE, if not eligible for the WUE they are reviewed for other awards. The WUE states are limited to students who are legal residents of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming. Please note: Only first time incoming freshman and new transfer students are eligible for the WUE scholarship. *Currently enrolled students not originally awarded WUE, post-baccalaureate students and returning students are **not** eligible for WUE.*

The amount of the WUE scholarship will always represent the 150% of the cost of Montana resident tuition and fees. **The WUE scholarship will automatically be renewed each semester providing students follow all conditions of the WUE Scholarship.**

The conditions of the WUE Scholarship are:

- The award is in effect for four years or until completion of a bachelor's degree (120 credits) whichever comes first.
- You must maintain a 3.0 grade point average and register for at least 15 credits each consecutive term of enrollment. Please note that completion of 15 credits per semester leads to graduation within four years.
- **Tuition and fees at UM between 12 – 21 credits costs the same.** The best way to maximize your tuition dollars is by taking advantage of this cost savings during your scholarship eligibility.
- **You may not earn Montana residency for fee purposes at any unit of the Montana University System.**
- If you change your status to Distance Only or if you transfer your enrollment to the Missoula College your Western Undergraduate Exchange Scholarship will no longer apply.

To be eligible for the WUE scholarship first time incoming freshman and transfer students must apply for admission and be admitted to The University of Montana. Awarding of the WUE will occur on a space available rolling basis with priority given to those who apply before December 31st. Further details are available from the Enrollment Services-Admissions Office or by visiting <http://admissions.umt.edu>.

### **Student Conduct Code**

The Student Conduct Code, embodying the ideals of academic honesty, integrity, human rights and responsible citizenship, governs all student conduct at The University of Montana-Missoula. Student enrollment presupposes a commitment to the principles and policies embodied in this Code. The Student Conduct Code sets forth University jurisdiction, student rights, standards of academic and general student conduct, disciplinary sanctions for breach of the standards of student conduct and procedures to be followed in adjudicating charges of both academic and general misconduct. The Vice President for Student Affairs is responsible for procedural administration of the Student Conduct Code for all general conduct. The Provost and Vice President for Academic Affairs is responsible for all academic conduct. Copies of the Student Conduct Code can be obtained from the offices of the Vice President for Student Affairs, the Provost and Vice President for Academic Affairs, Residence Life, and Associated Students of The University of Montana-Missoula (ASUM). The Student Conduct Code also can be accessed from the internet at [http://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/student_conduct.php).

### **Service Members Opportunity College**

The University is a member of Service members Opportunity Colleges, a consortium of over 1300 institutions pledged to be reasonable in working with service members and veterans trying to earn degrees.

**Registrar's Office**

Lommasson Center 201

Phone: (406) 243-2995

Fax: (406) 243-4807

**General Education**

This portion of the catalog was edited after the catalog was published. Updated August 28, 2013, September 3, 2013, October 4, 2013, October 8, 2013, October 17, 2013, October 21, 2013, October 30, 2013, November 5, 2013, November 21, 2013.

**Preamble**

The University of Montana-Missoula's General Education Program provides a broad academic base that supports both undergraduate learning at The University of Montana-Missoula and continued learning following graduation. While the General Education Program offers students considerable flexibility in selecting courses, it has a set of common educational objectives for all students.

In accordance with the mission of The University of Montana- Missoula, these objectives are to develop competent and humane individuals who are informed, ethical, literate, and engaged citizens of local and global communities. Students should become acquainted with issues facing contemporary society, participate in the creative arts, develop an understanding of science and technology, cultivate an appreciation of the humanities, and examine the history of different American and global cultures. Upon completion of the general education requirements students should be able to articulate ideas orally and in writing, understand and critically evaluate tangible and abstract concepts, and employ mathematical and other related skills appropriate to a technologically focused society.

In summary, the General Education Program is designed to provide a high quality intellectual foundation that accommodates all UM students whether in liberal arts or professional programs. This foundation will be reinforced, expanded, and refined as students continue through their course of study. Students are encouraged to prepare for productive roles in their chosen fields by cultivating civic awareness vital to the greater community and a democratic society. The acquired skills will allow students to examine critically the human experience and achieve genuine confidence in their knowledge and abilities. For the General Education Program to accomplish its goals, students must assume primary responsibility for their growth and education.

**General Education Requirements**

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the following General Education Requirements. (Students who have completed an approved lower-division general education program at an approved Montana institution of higher education should refer to the catalog section on General Education for Transfer Students.

All General Education courses must be at least 3 credits, must be introductory and foundational, and have no more than one pre-requisite. The General Education Committee may allow exceptions for upper-division courses, courses fewer than three credits, and for courses with more than one pre-requisite, if the proposing unit can justify such an exception.

Some courses may satisfy both the "Writing Course" requirement (1.2) and one of the Groups IV through XI.

Some courses may satisfy both Group II and Group III Symbolic Systems.

Some courses may satisfy both Group IX and one of the Groups IV through VIII.

Some courses may satisfy both Group X and one of the Groups IV through VIII. No course may satisfy both Group IX and Group X.

**NOTE! \*\*\*All courses taken to satisfy General Education Requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better\*\*\*.**

Students are cautioned that approved courses may change from year to year. **To be used for General Education credit, a course must be listed as approved in the Class Schedule for the semester a student registers for it.**

Group I: English Writing Skills	Credits
1. Composition course WRIT 101 or 201 (ENEX 101, WTS 101, ENEX 200) or an equivalent	3
2. One designated Writing Course	1-3
3. Upper-Division Writing Requirement (as specified by major department)	3
<del>Take and pass the Writing Proficiency Assessment (WPA)</del>	<del>0</del>
Group II: Mathematics	3
Group III: Modern and Classical Languages or Symbolic Systems A two semester language sequence is the default option (test out provisions apply). Students may substitute a symbolic system sequence required by their major and approved by the General Education Committee. The list of programs granted exceptions and their alternative options are found in the listing of those majors.	0-10 or 3-6
Group IV: Expressive Arts	3
Group V: Literary and Artistic Studies	3
Group VI: Historical and Cultural Studies	3
Group VII: Social Sciences	3
Group VIII: Ethics and Human Values	3
Group IX: American and European Perspectives	3
Group X: Indigenous and Global Perspectives	3
Group XI: Natural Sciences	6
One Natural Science course must include a laboratory experience.	
Total	*28-49

\*Some courses satisfy more than one group (see list at the end of this section).

### Group I: English Writing Skills

The ability to write effectively is fundamental to success in academic, professional, and civic endeavors. Specifically, a student should be able to:

Use writing to learn and synthesize new concepts;

Produce focused writing that is developed, logical, and organized;

Compose written documents that are appropriate for a given audience, purpose, and context;

Revise written documents based on constructive feedback;

Develop competence in information literacy, information technology and digital literacy;

Use discipline-specific style and citation conventions;

Demonstrate appropriate English language usage.

Students must satisfy the following ~~four~~ **three** requirements **in order**:

1. Composition course WRIT 101 or 201 ( ENEX 101, WTS 101, ENEX 200) or an equivalent;
2. One approved writing course;
3. The upper-division writing requirement for the major.

~~The Upper-Division Writing Proficiency Assessment (WPA), to be taken between 45-70 credits;~~

**Composition Course** All students must complete WRIT 101 or 201 (ENEX 101, WTS 101, ENEX 200), or an equivalent composition course with a grade of C-minus or better. Students with Language and Composition AP scores of 4 or better are exempted from this requirement.

Entering students are placed into WRIT 095, WRIT 101 or WRIT 201 (WTS 100D, WTS or ENEX 101, or ENEX 200) based on their standardized test scores. Students placed into WTS 100D are provided an opportunity to challenge their placement with specific scores. Students placing into WRIT 201 (ENEX 200) may choose to take WRIT 101 (ENEX 101) instead.



**One Writing Course** All students, unless exempted, must pass an approved writing course (chosen from the following list of approved courses) ~~before attempting the WPA~~. Students are exempted from this requirement by transferring more than 27 semester credits at the time of their initial registration at the University.

~~**Upper-Division Writing Proficiency Assessment (WPA)** All students (including transfer students) who have completed the composition course requirement, the writing course requirement (unless exempted), and at least 45 semester credits must take the WPA.~~

~~The WPA consists of a two-hour proctored examination written in response to a text released two weeks prior to the examination date. The assessment is offered six times annually. Information on the assessment and copies of the text are available at: <http://www.umt.edu/udwpa>~~

~~Students must pass the WPA in order to graduate. The assessment is designed to ensure that the student is prepared for the writing required in upper-division major courses. Students are advised to satisfy the writing proficiency assessment prior to completing the upper-division writing requirement in their major.~~

~~Students should note the following:~~

~~Students must take the assessment after 45 but no later than 70 credits.~~

~~Transfer students may take the assessment concurrently with either their writing course or the writing requirement(s) in their major.~~

**Upper-Division Writing Requirement** All students must meet the approved upper-division writing requirements specified by their majors. Students should seek specific information about the upper-division writing requirements in their major in the section of the catalog where information about their chosen major is given.

Students cannot use the same writing course to meet both the approved writing course requirement and the upper-division writing requirement.

#### Writing Courses

The following courses are designated as **approved writing courses** for 2013-2014. Students are cautioned that approved courses may change from year to year. To be used for General Education, a course must be listed as approved in the catalog and in the Class Schedule for the semester a student registers for it.

Course #	Title
AAS 372	African American Identity
AAS 347/HSTA 347	African American Religious Experience
AASC 167H	Nature and Society
ANTY 336	Myth, Ritual and Religions
ARTH 250L (ART 203L)	Introduction to Art Criticism
ARTH 434 (ART 368)	Latin American Art
BMGT 205	Professional Business Communications
BUS 210	Critical Analysis for Business
C&I 287	Business Communication
CLAS 251L (MCLG 251L)	The Epic
CLAS 252L (MCLG 252L)	Greek Drama: Politics on Stage
<del>COMM 414 (COMM 410)</del>	<del>Communication in Personal Relationships</del>
CSCI 215E (CRT 122E)	Social & Ethical Issues
CSCI 216E (SCI 220E)	Robots, Genetic Engineering and Ethics
ECNS 433 (ECON 440)	Economics of the Environment (Environmental Economics)
FILM 320	English Literature Shakespeare
HC 121L	Ways of Knowing
HSTA 315 (HIST 353)	Early American Republic
HSTA 347/AAS 347	African American Religious Experience
HSTA 385	Families & Children in America
HSTR 103H (HIST 107H)	Honors Western Civilization I
HSTR 334	Latin American: Reform and Revolution
HSTR 358	Russia Since 1881
HSTR 401	The Great Historians
JRNL 270 (JOUR 270)	Reporting

LIT 110L (ENLT 120L)	Introduction to Literature (Introduction to Critical Interpretation)
LIT 120L (ENLT 121L)	Poetry (Introduction to Poetry)
LIT 210L (ENLT 224L)	American Literature I (American Literature to 1865)
LIT 211L (ENLT 225L)	American Literature II (American Literature: 1865 to Present)
LIT 220L (ENLT 217L)	British Literature: Medieval Renaissance
LIT 221L (ENLT 218L)	British Literature: Enlightenment to Romanticism
LIT 222L (ENLT 219L)	British Literature: Victorian to Contemporary
LSH 151L/152L (LS 151L/152L)	Introduction to the Humanities Bible and Medieval
MUSI 302H (MUS 325H)	Music History II (History of Music II)
NASX 280 (NAS 200)	Native American Studies Research Theories Methods
NASX 235 X (NAS202L)	Oral and Written Traditions of Native America
NRSM 200	Natural Resources Professional Writing
PHL 210E (PHIL 300E)	Moral Philosophy
RTV 280	Reporting for Broadcast
THTR 330H (DRAM320)	Theatre History I
WBIO 245	Science Writing
WRIT 110 (WTS 120L)	Introduction to Literature (Introduction to Critical Interpretation)
WRIT 120L (WTS 121L)	Poetry (Introduction to Poetry)
WRIT 121 (WTS 115)	Introduction to Technical Writing (Technical Writing)
WRIT 201 (ENEX 200)	Advanced Composition
WRIT 221	Intermediate Technical Writing
WRIT 222 (FOR 220)	Technical Approach to Writing (Technical Writing)
WRIT 240E (WTS 240E)	Ethics and Rhetoric: Writing Arguments on Contemporary Issues
WRIT 325	Writing in the Sciences

### Upper-Division Writing Courses

The following courses are approved as meeting the criteria for the **upper-division writing requirement**. Students should consult with their advisor regarding the requirement specified by their major.

Course #	Title
AHAT 342 (HHP 372)	Rehab of Athletic Injuries
ANTY 314 (ANTH 314)	Principles of Forensic Anthropology
ANTY 400 (ANTH 400)	History of Anthropology
ANTY 402 (ANTH 448)	Quantitative Ethnographic Methods
ANTY 403E (ANTH 403E)	Ethics and Anthropology
ANTY 408 (ANTH 402)	Advanced Anthropological Statistics
ANTY 450 (ANTH 450)	Archaeological Theory
ANTY 451 (ANTH 451)	Cultural Resource Management
ANTY 455 (ANTH 455)	Artifact Analysis
ARTH 350 (ART 303L)	Contemporary Art and Art Criticism
ARTH 434H (ART 368H/NAS 368H)	Latin American Art
BIOE 371 (BIOL 341)	General Ecology Lab (Ecology Lab)
BIOE 428 (BIOL 366)	Freshwater Ecology
BIOO 470 (BIOL 304)	Ornithology
BIOO 475 (BIOL 306)	Mammalogy
BMGT 486	Strategic Venture Management
CHMY 302E (CHEM 334)	Chemical Literature and Scientific Writing
COMX 347 (COMM 377)	Rhetoric, Nature, Environmentalism
COMX 413 (COMM 413)	Communication and Conflict-Writing
COMX 414 (COMM 410)	Communication in Personal Relationships
COMX 421 (COMM 421)	Communication in Nonprofit Organization
COMX 422 (COMM 422)	Communication and Technology
COMX 424 (COMM 424)	Risk, Crisis and Communication
COMX 445 (COMM 455)	Rhetorical Criticism and Theory
COMX 447 (COMM 480)	The Rhetorical Construction of Woman
COMX 449 (COMM 481)	The Rhetoric of U.S. Women's Activism, 1960 - present
CSCI 315E	Computer Ethics and Society
CSCI 499	Senior Thesis/Project
CSD 430 & CSD 440	Senior Capstone I and II
DANC 494 (DAN 494)	Seminar/Workshop (Junior/Senior Dance Seminar)
ECNS 488-489	Research Method & Thesis Design / Senior Thesis capstone
EDU 397 (C&I 318)	Methods: PK-8 Language Arts
ENST 382 (EVST 302)	Environmental Law
ENST 335L (EVST 305L)	The Environmental Vision
ENST 367 (EVST 367)	Environmental Politics and Policy
ENST 487 (EVST 487)	Globalization, Justice and the Environment
GEO 320 (GEOS 320)	Global Water Cycle

GEO 499 (GEOS 499)	Senior Thesis/Capstone
GPHY 433 (GEOG 333)	Cultural Ecology
GPHY 335 (GEOG 335)	Water Policy
GPHY 499 (GEOG 499)	Senior Thesis/Capstone
GRMN 351H (GERM 351H)	German Culture to 1900
GRMN 352H (GERM 304H)	German Culture from 1900 to the Present
HEE 301 (HHP 301)	Methods of Secondary HE (Instructional Strategies in Secondary Physical Education)
HSTA 415 (HIST 373)	The Black Radical Tradition
HSTA 417/AAS 417	Prayer and Civil Rights
HSTA 418 (HIST 470)	Women and Slavery
HSTA 419 (HIST 471)	Southern Women in Black and White
HSTA 420 (AAS 420)	America Divided, 1848-1865
HSTA 422	Research: U.S. After WWII
HSTA 455 (HIST 467)	Indians, Bison and Horse
HSTA 461	Research in Montana History
HSTA 462 (HIST 401)	Regionalism and the Rocky Mountain West
HSTA 469	Research & Writing Early America & the Atlantic World
HSTA 471	Writing Women's Lives
HSTR 400	Historical Research Seminar
HSTR 418	Research Seminar: Britain in the Long Eighteenth Century
HSTR 437	U.S. Latin American Relations
HSTR 457 (HIST 445)	World of Anna Karenina
HSTR 470 (HIST 437)	The Dynamics of Diplomacy
<del>JOUR 333</del>	<del>Magazine Freelance Writing</del>
<del>JOUR 445</del>	<del>Feature Writing</del>
JPNS 311	Classical Japanese Literature in English Translation
JPNS 312	Japanese Literature from Medieval to Modern Times
JPNS 431	Postwar Japanese Literature
JRNL 340 (RTV 360)	Intermediate Audio (Advanced Broadcast Reporting)
JRNL 352 (RTV 361)	Int. Video Reporting and Production (Newscast Reporting and Producing)
<a href="#">JRNL 362 (JOUR 315)</a>	<a href="#">Feature Writing</a>
JRNL 370 (JOUR 331)	Public Affairs Reporting
<a href="#">JRNL 474 (JOUR 410)</a>	<a href="#">Magazine Freelance Writing</a>
<del>JRNL 494 (RTV 494)</del>	<del>Senior Seminar</del>
KIN 447 (HHP 450)	Analytical and Communication Techniques
LING 473	Language and Culture
LING 484	North American Indigenous Languages and Linguistics
LIT 300 (ENLT 301)	Literary Criticism (Applied Literary Criticism)
LIT 304 (ENLT 327)	U.S. Writers of Color (Literature by US Writers of Color)
LIT 314 (ENLT 335)	The American Novel
LIT 316 (ENLT 373)	Topics in Postcolonial Studies
LIT 327 (ENLT 320)	Shakespeare
LIT 342L (ENLT 338)	Montana Writers (Montana Literature)
LIT 343 (ENLT 337)	African American Literature
LIT 353 (ENLT 353)	Milton
LIT 376 (ENLT 325)	Literature and Other Disciplines (Studies in Literature and Other Disciplines: The Bible as Literature)
LIT 494 (ENLT 401)	Seminar: Literature Capstone (Capstone Seminar in Literature)
LS 484	Novel Ancient and Modern
M 499	Senior Thesis
M 429 (MATH 406)	History of Mathematics
MART 450 (MAR 450)	Topics in Film and Media
MCLG 315	Major Hispanic Authors
MCLG 494/RUSS 494	Seminar in Russian Studies
MIS 448 (IS 448)	Management Game
MUSI 415 (MUS 424)	Music of the 20th Century to the Present
MUSI 416 (MUS 436)	Topics in Music History
MUSI 417 (MUS 437)	Cultural Studies in Music
NASX 494 (NAS 494)	Reading Seminar in Native American Studies
PHAR 550	Drug Literature Evaluation
PHL 499 (PHIL 480)	Senior Seminar
PHSX 330 (PHYS 330)	Methods of Communicating Physics
PSCI 400 (PSC 400)	Advanced Writing in Political Sciences
PSYX 400 (PSYC 400)	History and Systems of Psychology
PSYX 320 (PSYC 320)	Research Methods III (Advanced Psychological Research Methods)
PTRM 451 (RECM 451)	Tourism and Sustainability
PTRM 482 (RECM 482)	Wilderness and Protected Area Management
SOCI 438 (SOC 438)	Seminar in Crime and Deviance
SOCI 441 (SOC 441)	Capstone: Inequality and Social Justice
SOCI 460 (SOC 460)	Capstone in Rural & Environmental Change

SW 300	Writing for Sociology
SW 310	Human Behavior in the Social Environment
THTR 331Y (DRAM 321)	Social Welfare Policies and Services
WGSS 363 (WGS 363)	Theatre History II
WILD 408 (WBIO 408)	Feminist Theory and Methods
WILD 470 (WBIO 470)	Advanced Fisheries Science
WILD 497 (WBIO 497)	Conservation of Wildlife Populations
	Senior Thesis

## Group II Mathematics

Mathematical literacy implies an appreciation of the beauty of mathematics, an ability to apply mathematical reasoning, and an understanding of how mathematics and statistics are used in many arenas. Mathematical literacy may be attained through the study of the properties of numbers, mathematical modeling, geometry, data analysis and probability, with the overarching goal of learning mathematical reasoning and problem solving.

Mathematical literacy cannot be achieved in a single course. However, for the purposes of general education, the mathematical literacy requirement can be met by any one of the following:

1. achieving a grade of C-or better in one of the following courses which address different aspects of mathematical literacy: M 104, 105, 115, 118, 121, 122, 135, 151 (MATH 107, 109, 111, 112, 117, 121, 130); or a mathematics course of 3 or more credits for which one of these is a prerequisite.
2. achieving a score of 50 or better on the CLEP College Algebra Test, the CLEP College Precalculus Test, or the CLEP College Mathematics Test.
3. passing the Mathematical Literacy Examination administered by the Department of Mathematical Sciences. To qualify to take the Mathematical Literacy Examination, a student must have achieved a score of 630 or better on the SAT Math exam or a score of 28 or better on the ACT Math exam. A student may take the Mathematical Literacy Examination only once. Further details are available from the Department of Mathematical Sciences.

Students must complete the mathematical literacy requirement by the time they have earned 30 credits; if not, they must register for a mathematical sciences course every semester until they have completed the requirement. Because many other courses at the university assume some mathematical literacy, it is strongly recommended that all students complete their mathematical literacy requirement as soon as possible.

Upon completion of the mathematical literacy requirement, a student will be able to effectively apply mathematical or statistical reasoning to a variety of applied or theoretical problems.

## Group III: Modern and Classical Language

Students must complete successfully the second semester of a Modern and Classical Language at the University of Montana. Courses encompass the comprehensive study of a natural language other than written or spoken contemporary English.

Upon completion of the Modern and Classical Languages sequence, students will have a basic functional knowledge of a second natural language sufficient to:

1. read and write if the language is classical, such as Latin;
2. speak and aurally comprehend, if the language does not have a written tradition, such as Salish;
3. perform all four skills (speaking, aural comprehension, reading, and writing) if the language is modern and has a written tradition, such as Japanese or French.
4. demonstrate both receptive (visual comprehension) and expressive (manual production) proficiency if the language is American Sign Language.

Course #	Title
ARAB 101	Elementary Modern Arabic I (Elementary Standard Arabic)
ARAB 102	Elementary Modern Arabic II (Elementary Modern Standard Arabic)
CHIN 101	Elementary Chinese I
CHIN 102	Elementary Chinese II

FRCH 101 (FREN 101)	Elementary French I
FRCH 102 (FREN 102)	Elementary French II
GRMN 101 (GERM 101)	Elementary German
GRMN 102 (GERM 102)	Elementary German
GRK 101	Elementary Greek I
GRK 102	Elementary Greek II
ITLN 101 (ITAL 101)	Elementary Italian I
ITLN 102 (ITAL 102)	Elementary Italian II
JPNS 101	Elementary Japanese I
JPNS 102	Elementary Japanese II
LATN 101 (LAT 101)	Elementary Latin
LATN 102 (LAT 102)	Elementary Latin
RUSS 101	Elementary Russian I
RUSS 102	Elementary Russian II
SPNS 101 (SPAN 101)	Elementary Spanish
SPNS 102 (SPAN 102)	Elementary Spanish
*ENIR 101	Elementary Irish One
*ENIR 102	Elementary Irish Two
*ENIR 103	Elementary Irish Three

- \* Three 3 credit courses of Irish are required to fulfill the general education requirement
- Students may satisfy the requirement by demonstrating equivalent skill in any of these or other languages in testing administered by the Department of Modern and Classical Languages and Literatures.
- International students from non English speaking countries may satisfy this requirement by presenting a TOEFL score of 580 or greater, or by successful completion of ESL/LING 250 or 450, or by presenting a department approved application for degree.

### Group III: Exceptions to the Modern and Classical Language requirement - Symbolic Systems

The majors listed below have been granted exceptions to the Modern and Classical Language requirement. Students graduating in any one of these majors may substitute the symbolic system course or courses designated by the major.

Each of these courses presents the foundations of a symbolic system, defined as a relationship that maps real-world objects, principles and doctrines with abstractions of the real-world.

Symbolic systems facilitate communication in specialized ways but do not comprise a spoken or written language by which members of a culture typically communicate with each other.

Upon completion of a symbolic systems course or courses, students will be able to:

1. demonstrate an understanding of the symbols and the transformations of the system;
2. relay and interpret information in terms of the given symbolic system;
3. apply creative thinking using the symbolic system in order to solve problems and communicate ideas;

Major	Symbolic Systems Course(S)
Accounting & Finance	STAT 216 (MATH 241)
Anthropology	ANTY 401 (ANTH 401) or FORS 201 (FOR 201) or STAT 216 (MATH 241) or SOCI 202 (SOC 202) or PSYX 222 (PSYC 220)
Biochemistry/Health Profession Option	M171 (MATH 152), M162 (MATH 150)
Chemistry	One course in Mathematical Science at 162 (150) level or above
Communication Studies	STAT 216 (MATH 241) or PSYX 222 (PSYC 220) or SOCI 202 (SOC 202) or HHP 486
Computer Science	CSCI 131 (CS 131) and CSCI 136 (CS 132)
Curriculum & Instruction	M 136 (MATH 131)
Division of Biological Sciences	M 162 (MATH 150) or M171 (MATH 152)
Economics	STAT 216 (MATH 241) and either M 162 (MATH 150) or M 171 (MATH 152) or M1 72 (MATH 153)
Environmental Studies	STAT 216 (MATH 241) or SOCI 202 (SOC 202) or PSYX 222 (PSYC 220) or FORS 201 (FOR 201)
Forestry	M 162 (MATH 150)
Geography	STAT 216 (MATH 241)
Geoscience	M 162 (MATH 150) or M 171 (MATH 152)
Health and Human Performance	EDU 421/HHP 486 (C&I/HHP 486) or STAT 216 (MATH 241) or PSYX 222 (PSYC 220) or SOCI 202 (SOC 202) or WBIO 210

Management Information Systems	STAT 216 (MATH 241)
Management & Marketing	STAT 216 (MATH 241)
Mathematics or combined Mathematics / Computer Science	M 171 (MATH 152), or any course for which it is a prerequisite
Music - Bachelor of Music Education Bachelor of Music in Composition/Music Technology Bachelor of Music Specialization in Instrumental Performance	MUSI 105, 106, 140 & 141 (MUS 111, 112, 137 & 138)
Bachelor of Music Specialization in Piano Performance and Pedagogy	
Bachelor of Music Specialization in Piano Performance	
Pharmacy	M162 (MATH 150) and (STAT 216 (MATH 241) or PSYX 222 (PSYCH 220) or SOCI 202 (SOC 202))
Psychology	PSYX 222 (PSYC 220) or STAT 216 (MATH 241)
Parks, Tourism and Recreation Management	STAT 216 (MATH 241) or FORS 201 (FOR 201) or SOCI 202 (SOC 202)
Resource Conservation	STAT216 (MATH 241) or WILD 240 (WBIO 240) or FORS 201 (FOR 201) or SOCI 202 (SOC 202)
Sociology	SOCI 202 (SOC 202) or PSYX 222 (PSYC 220) (for double majors) or STAT 216 (MATH 241)
Theatre Bachelor of Fine Arts (Acting Emphasis)	THTR 210, 211 & 310 (DRAM 210, 211 & 310)
Theatre Bachelor of Fine Arts (Design/Technology Emphasis)	THTR 255 & THTR 345 or 355 (DRAM 231 & 341 or 332)
Wildland Restoration	[M162 (MATH 150) or M 171 (MATH 152)] and [FORS 201 (FOR 201) or WILD 240 (WBIO 240) or STAT 216 (MATH 241)]
Wildlife Biology	M162 (MATH 150) or higher and WILD 240 (WBIO 240) or two Math courses 162 (150) and Higher

**Students are advised that most courses meeting the symbolic systems exception have prerequisites, as indicated in the chart below:**

Course	Title	Pre-requisite(s)
ANTY 401 (ANTH 401)	Anthropological Data Analysis	College algebra or consent of instructor
CSCI 135 (CS 131)	Fundamentals of Computer Science I	Computer programming experience in a language such as BASIC, Pascal, C, etc.; coreq., M 095 D (MAT 100D) or consent of instr. CSCI 104 (CS 102) highly recommended as prereq. or coreq
CSCI 136 (CS 132)	Fundamentals of Computer Science II	CSCI 135 (CS 131); coreq., M 151 (MATH 121) or consent of instr
EDU 421 (C&I 486)	Statistical Procedures in Education	M 115 (MATH 117) or equiv. or consent of instr
FORS 201 (FOR 201)	Forest Biometrics	M 115 (MATH 117) or M 151 (MATH 121) or equivalent
HHP 486	Statistical Procedures in Education	M 115 (MATH 117) or equiv. or consent of instr
M 136 (MATH 131)	Mathematics for K-8 Teachers II	M 135 (MATH 130)
M 162 (MATH 150)	Applied Calculus	Appropriate placement score or one of M 121, 122, or 151 (MATH 111, 112 or 121)
M 171 (MATH 152)	Calculus I	M 122 or 151 (MATH 112 or 121) or appropriate placement score
STAT 216 (MATH 241)	Statistics	M 115 (MATH 117) or consent of instructor
STAT 451 (MATH 444)	Statistical Methods	One year of college mathematics including M 115 (MATH 117) or equiv. course in probability or consent of instr.
MUSI 105 (MUS 111)	Music Theory I (Theory I)	Coreq., MUSI 140 (MUS 137)
MUSI 106 (MUS112)	Music Theory II (Theory II)	MUSI 105 (MUS 111)
MUSI 140 (MUS137)	Aural Perception I	Coreq., MUSI 105 (MUS 111)
MUSI 141 (MUS 138)	Aural Perception II	MUS 137
MUSI 139 (MUS162)	Language of Music II	MUSI 138 (MUS 161)
PSYX 222 (PSYC220)	Psychological Statistics	PSYX 100S, 120 (PSYC 100S, 120); M 115, 162, or 171 (MATH 117, 150 or 152)
SOCI 202 (SOC 202)	Social Statistics	M 115 (MATH 117) or consent of instructor
THTR 211 (DRAM211)	Voice and Speech II	THTR 210 (DRAM 210)
THTR 310 (DRAM310)	Voice and Speech III	THTR 211 (DRAM 211)
THTR 345 (DRAM341)	Flat Pattern Design and Drafting	THTR 255 (DRAM 231)
THTR 355 (DRAM332)	Computer-Aided Drafting and Computer Applications for the Theatre	THTR 255 (DRAM 231)
WBIO 240 (WILD 240)	Introduction to Biostatistics	Calculus and consent of instructor

#### Group IV: Expressive Arts (A)

Expressive Arts courses are activity-based and emphasize the value of learning by doing in an artistic context. Upon completion of an Expressive Arts course, students will be able to express themselves in the making of an original work or creative performance; understand the genres and/or forms that have shaped the medium; and critique the quality of their own work and that of others.

Course #	Title
ARTZ 101A (ART 101A)	Visual Language: Drawing
ARTZ 106A (ART 102A)	Visual Language: 2-D Design
ARTZ 108A (ART 103A)	Three Dimensional Fundamentals
ARTZ 131A (ART 129A)	Ceramics for Non-Majors
ARTZ 211A (ART 223)	Drawing I
ARTZ 221A (ART 240A)	Painting I
ARTZ 231A (ART 229A)	Ceramics I
ARTZ 251A (ART 235)	Sculpture I
ARTZ 271A (ART 233A)	Printmaking I
ARTZ 284A (ART 215)	Photo I - Techs and Processes
ARTZ 302A (ART 314A)	Elementary School Art
ARTZ 324A (ART 324A)	Environmental Draw Seminar
COMX 111A (COMM 111A COM 160A)	Introduction to Public Speaking(Oral Communication)
COMX 217A (COM 217A)	Oral Interpretation of Literature
CRWR 210A (ENCR 210A)	Introduction Fiction Workshop (Introduction to Creative Writing: Fiction)
CRWR 211A (ENCR 211A)	Introduction Poetry Workshop (Introduction to Creative Writing: Poetry)
CRWR 212A (ENCR 212A)	Introduction Nonfiction Workshop (Introduction to Creative Writing: Nonfiction)
CRWR 312A (ENCR 312A)	Interm Nonfiction Workshop (Creative Writing: Nonfiction)
DANC 100A (DAN 100A)	Modern Dance I
DANC 110A (DAN 104A)	Ballet I
DANC 115A (DAN 107A)	Jazz Dance I
DANC 118A (DAN 108A)	Dance Forms: Tap
DANC 160A (DAN 108A)	Dance Forms: Irish
DANC 165A (DAN 108A)	Dance Forms: African
DANC 170A	Dance Forms: Tribal Style Belly
DANC 200A (DAN 200A)	Modern Dance II
DANC 210A (DAN 204A)	Ballet II
DANC 215A (DAN 207A)	Jazz Dance II
DANC 220A (DAN 201A)	Beginning Composition
ENST 373A (EVST 373A)	Nature Works
JRNL 140A (R-TV 150A)	Beginning Radio/Audio Storytelling
MAR 112A	Intro to Non-Lin Editing
MART 111A (MAR 111A)	Integrated Digital Art
MUSI 102A (MUS 100A)	Performance Study
MUSI 108A (MUS 108A)	Orchestras: USMO (Orchestras)
MUSI 110A (MUS 113A)	Opera Theatre
MUSI 111A (MUS 118A)	Singing for Non-Majors
MUSI 112A (MUS 107A)	Choir: Chamber Choral (Choral Ensemble)
MUSI 114A (MUS 110A)	Band: UM Concert Band (Concert Bands)
MUSI 122A (MUS 150A)	Percussion Ensemble: UM (Chamber Ensembles)
MUSI 123A	World Percussion Ensemble
MUSI 131A (MUS 114A)	Jazz Ensemble: UM Jazz Bands (UM Jazz Bands)
MUSI 135A (MUS 115A)	Keyboard Skills I (Piano In Class I)
MUSI 136A (MUS 116A)	Keyboard Skills II (Piano In Class II)
MUSI 155A (MUS 104A)	Marching: Grizzly Marching Band (Marching Band)
MUSI 160A (MUS 147A)	Beginning Guitar (Beginning Folk Guitar)
MUSI 162A (MUS 150A)	Chamber Ensembles
MUSI 267A (MUS 150A)	Composers' Workshop I
MUSI 304A	Sound in the Natural World
MUST 227A (MUS 150A)	Mountain Electroacoustic Laptop Ensemble I
THTR 102A (DRAM 103A)	Introduction to Theatre Design
THTR 106A (DRAM 106A)	Theatre Production I: Running Crew
THTR 107A (DRAM 107A)	Theatre Production I: Construction Crew
THTR 113A	Introduction to Vocal Acting
THTR 120A (DRAM 111A)	Introduction to Acting I (Acting for Non-Majors)
THTR 121A (DRAM 112A)	Introduction to Acting II (Acting for Non-Majors II)
THTR 229A (DRAM 216A)	Production Acting I
WRIT 184A (WTS 184A)	Beginning Creative Writing: Multiple Genres
WRIT 185A (WTS 185A)	Beginning Creative Writing: Fiction
WRIT 186A (WTS 186A)	Beginning Creative Writing: Poetry

**Group V: Literary and Artistic Studies (L)**

In these courses, students develop familiarity with significant works of artistic representation, including literature, music, visual art, and/or performing arts. Through this experience, students enhance their analytical skills and explore the historical, aesthetic, philosophical, and cultural features of these works.

Upon completion of a Literary and Artistic Studies course, students will be able to:

1. analyze works of art with respect to structure and significance within literary and artistic traditions, including emergent movements and forms; and
2. develop coherent arguments that critique these works from a variety of approaches, such as historical, aesthetic, cultural, psychological, political, and philosophical.

Course #	Title
ARTH 160L (ART 100L)	Art Appreciation
ARTH 250L (ART 203L)	Introduction to Art Criticism
CLAS 251L (MCLG 251L)	The Epic
CLAS 252L (MCLG 252L)	Greek Drama: Politics on Stage
COMX 140L (COM 140L)	Introduction to Visual Rhetoric
CRWR 115L (ENCR 110L)	Montana Writers Live!
DANC 234L (DAN 234L)	Dance in Cinema
DANC 360L (DAN 335L)	World Dance
ENST 335L (EVST 305L)	Environmental Vision
FILM 103L (ENFM 180L)	Introduction to Film
GRMN 322L (GERM 222L)/LS 282L	The German Cinema
HC 121L	Ways of Knowing
LIT 110L (ENLT 120L/ WTS 120L)	Introduction to Literature (Introduction to Critical Interpretation)
LIT 120L (ENLT 121L/ WTS 121L)	Poetry (Introduction to Poetry)
LIT 210L (ENLT 224L)	American Literature I (American Literature to 1865)
LIT 211L (ENLT 225L)	American Literature II (American Literature since 1865)
LIT 220L (ENLT 217L)	British Literature: Medieval to Renaissance
LIT 221L (ENLT 218L)	British Literature: Enlightenment to Romanticism
LIT 222L (ENLT 219L)	British Literature: Victorian to Contemporary
LIT 270L (ENLT 227L)	Film and Literature (Film as Literature, Literature as Film)
LIT 342L (ENLT 338L)	Montana Writers (Montana Literature)
LIT 349L (ENLT 349L)	Medieval Literature
LIT 350L (ENLT 350L)	Chaucer
LIT 373L	Literature and the Environment
LIT 378L (ENLT 372L)	Gay and Lesbian Studies
LSH 151L (LS 151L)	Introduction to Humanities Bible
LSH 152L (LS 152L)	Introduction to Humanities Medieval
LSH 327L (LS 327L)	Gender and Sexuality in English Fiction
MAR 101L	Intro to Media Arts
MCLG 155L	Survey of Classical Literature
MCLG 160L	Classical Mythology
MCLG 191	Race, Class, Gender, and Sexuality in Contemporary Latin American Literature and Film (one time only designation for autumn 2013)
MCLG 313L	Classical Chinese Poetry in Translation
MCLG 314L	Traditional Chinese Literature (Traditional Chinese Literature in English Translation)
MCLG 332L	Introduction to Multicultural Literature in Germany
MUSI 101L (MUS 134L)	Enjoyment of Music (The Art of Western Music)
MUSI 130L (MUS 132L)	History of Jazz
MUSI 132L (MUS 133L)	History of Rock and Roll
MUSI 133L (MUS 139L)	Country Music: Cowboys, Opry and Nashville
MUSI 202L (MUS 135L)	Introduction to Music Literature
NASX 235X (NAS 202X)	Oral and Written Traditions Native Americans
RUSS 312L (RUSS 307L)/MCLG 307/LS 307L	Russian Literature II (Introduction to 19th Century Russian Literature)
RUSS 313L (RUSS 307L)/MCLG 307/LS 307L	Russian Literature III (Introduction to 20th Century Russian Literature)
THTR 101L (DRAM 101L)	Introduction to Theatre (Theatre Appreciation)
THTR 235L (DRAM 220L)	Dramatic Literature I

**Group VI: Historical and Cultural Studies (H)**

These courses present the historical or cultural contexts of ideas and institutions, and examine cultural development or



differentiation in the human past. They are foundational in that they are wide-ranging in chronological, geographical, or topical focus, or in that they introduce students to methods of inquiry specific to a particular discipline.

Upon completion of a Historical and Cultural Studies course, students will be able to:

1. synthesize ideas and information with a view to understanding the causes and consequences of historical developments and events;
2. evaluate texts or artifacts within their historical and/or cultural contexts;
3. analyze human behavior, ideas, and institutions within their respective historical and/or cultural contexts.

Course #	Title
AAS 161H	Introduction to African American Studies
AAS 208H/HSTR 208H (HIST 208H)	Discovering Africa
AAS 342H/HISTA 342H (AAS 262H)	African American History to 1865
<a href="#">AAS 343H/HISTA 343H (AAS 263H)</a>	<a href="#">African American History since 1865</a>
AASC 167H	Nature and Society
ANTY 101H (ANTH 101H)	Anthropology and the Human Experience (Introduction to Anthropology)
ANTY102H/LS 102H/SSEA 102H	Introduction to South & Southeast Asia
<a href="#">ANTY 103H</a>	<a href="#">Introduction to Latin American Studies</a>
ANTY 133H (ANTH 103H)	Food and Culture
ANTY 141H (ANTH 106H)	The Silk Road
ANTY 241H	Central Asian Cultures and Civilizations: Peoples and Environments
ANTY 251H (ANTH 251H)	Foundation of Civilization
ANTY 254H (ANTH 252H)	Archaeological Wonders of the World
ANTY 351H (ANTH 351H)	Archaeology of North America
ANTY 354H (ANTH 354H)	Mesoamerican Prehistory
ARTH 200H (ART 150H)	Art of World Civilization: Ancient to Medieval Art
ARTH 201H (ART 151H)	Art of World Civilization: Early Modern to Contemporary Art
ARTH 434H (ART 368H/NAS 368H)	Latin American Art
COMX 240H (COMM 250H)	Introduction to Rhetorical Theory
ENST 230H (EVST 167H)/AASC 167H	Nature & Society
GRMN 351H (GERM 303H)	German Culture, Beginnings to 1900 (Cross listed with LS 321H, MCLG 330H)
GRMN 352H (GERM 304H)	German Culture, 1900 to the Present (Cross listed with LS 322H, MCLG 331H)
HSTA 101H/103H (HIST 151H/154H)	American History I/Honors American History I (The Americans: Conquest to Capitalism & Honors)
HSTA 102H/104H (HIST 152H/ 155H)	American History II/ Honors American History II (The Americans: 1877 to the Present)
HSTA 370H	Women in America from the Colonial Era through the Civil War
HSTA 371H (HIST 371H)	Women in America from the Civil War to the Present
HSTR 101H/103H (HIST 104H/107H)	Western Civilization I /Honors Western Civilization I (European Civilization to 1715)
HSTR 102H/104H (HIST 105H/108H)	Western Civilization II /Honors Western Civilization II (Modern Europe)
HSTR 230H (HIST 286H)	Colonial Latin America
HSTR 231H (HIST 287H)	Modern Latin America
<del>HSTR 240H (HIST 201H)</del>	<del>East Asian Civilizations</del>
HSTR 241H	Central Asian Cult & Civ
HSTR 301H (HIST 302H)	Ancient Greek Social History
HSTR 304H (HIST 303H)	Ancient Rome
HSTR 374E (HIST 334H)	War, Peace, and Society
HSTR 377H (HIST 330H)	European International Relations
HSTR 380H (HIST 331H)	Foreign Relations of the Great Powers
JPNS 150H (JPNS 210H)	Japanese Culture and Civil
LS 119H	Historical Perspective on Women
LSH 102H (LS 102H)	Introduction to South & Southeast Asia
LSH 161H (LS 161H)	Introduction to Asian Humanities
MCLG 100H	Introduction to Latin American Studies
MCLG 105H, RUSS 105H, LS 105H	Introduction to Russian Culture
MCLG 113H	French Cultural Identity through the Ages
MCLG 211H	Chinese Culture and Civilization
MCLG 231H	Germanic Mythology and Culture
MCLG 360H/ARTH 402H (ART 380H)/LS 340H	Ancient Greek Civilization and Culture
MUSI 207H (MUS 136H)	World Music (Music of the Worlds People)
MUSI 301H (MUS 324H)	Music History I (History of Music I)
MUSI 302H (MUS 325H)	Music History II (History of Music II)
NASX 105H (NAS 100H)	Introduction to Native American Studies
NASX 405H (NAS 429)	Gender Issues in Native American Studies
PHL 241H (PHIL 240H)	History and Philosophy of Science
RLST 204H (RELS 210H)	Introduction to the Hebrew Bible (Introduction to the Hebrew Bible/Old Testament and the History of Ancient Israel)
RLST 232H (RELS 232H)	Buddhism

RUSS 105H	Introduction to Russian Culture
THTR 330H (DRAM 320H)	Theatre History I
THTR 335H/ARTH 333H (DRAM 336H/ART 336H)	Architectural History to 1850 (History of Architectural Design, Pre-History to 1850)

### Group VII: Social Sciences (S)

Social science courses describe and analyze human social organization and interaction, employing social data at a broad scale with statistical relevance, experimental data on individuals or groups, or qualitative data based on observation and discourse.

Upon completion of a Social Sciences course, students will be able to:

1. Describe the nature, structure, and historical development of human behavior, organizations, social phenomena, and/or relationships;
2. use theory in explaining these individual, group, or social phenomena; and/or
3. understand, assess, and evaluate how conclusions and generalizations are justified based on data

Course #	Title
ANTY 122S (ANTH 102S)	Race and Minorities
ANTY 220S (ANTH 220S)	Culture & Society
ANTY 250S (ANTH 250S)	Introduction to Archaeology
BGEN 105S (MIS/IS 100S)/BADM 100S	Introduction to Business (Principles of Business)
BGEN 160S/CCS 160S (TASK 160S/BUS 160S)	Issues in Sustainability
BMGT 101S (MGMT 101S)	Introduction to Entertainment Management
COMX 115S (COM 150S)	Interpersonal Communication
COMX 191S (COMM 191)	Can Giving Change the World? Engaging Social Responsibility through Philanthropy (one time only designation for autumn 2013)/td>
COMX 202S (COMM 202S)	Nonverbal Communication
COMX 219S (COM 260S)	Survey of Children's Communication
COMX 220S (COMM 230S)	Organizational Communication
CSD 191S	Diversity in Communication/Service Learning(one time only designation for autumn 2013)
ECNS 101S (ECON 100S)	Economic Way of Thinking (Introduction to Political Economy)
ECNS 201S (ECON 111S)	Principles of Microeconomics (Introduction to Microeconomics)
ECNS 202S (ECON 112S)	Principles of Macroeconomics (Introduction to Macroeconomics)
EDLD 291	Special Topics in Educational Leadership: Leadership for a Diverse World (one time only designation for autumn 2013)
ENST 489S (EVST 477S)	Environmental Justice Issues and Solutions
GPHY 121S (GEOG 101S)	Human Geography (Introduction to Human Geography)
GPHY 141S (GEOG 103S)	Geography of World Regions
GPHY 323S (GEOG 315S)	Economic Geography of Rural Areas
LING 270S	Introduction to Linguistics
NRSM 121S (RSCN 121S)	Nature of Montana
NRSM 370S (RSCN 370S)	Wildland Conservation Policy and Governance
PSCI 191S	GLI: Political Regimes and Society(one time only designation for autumn 2013)
PSCI 210S (PSC 100S)	Introduction to American Government
PSCI 220S (PSC 120S)	Introduction to Comparative Government
PSYX 100S (PSY 100S/ PSYC 100S)	Introductory Psychology (Introduction to Psychology/Introductory Psychology)
PSYX 161S (PSY 110S)	Fundamentals of Organizational Psychology (Organizational Psychology)
PTRM 110S (RECM 110S)	Introduction to Parks, Recreation & Tourism
PTRM 217S (RECM 217S)	Wildland Recreation Management
SOCI 101S (SOC 110S)	Introduction to Sociology (Principles of Sociology)
SOCI 130S (SOC 130S)	Sociology of Alternative Religions
SOCI 191S	GLI:Who am I? Identity and Our Social World(one time only designation for autumn 2013)
SOCI 191S	Privation in the Land of Plenty: Hunger and Homelessness in the U.S./Service Learning (one time only designation for autumn 2013)
SOCI 211S (SOC 230S)	Introduction to Criminology (Criminology)
SOCI 212S (SOC 212S)	Social Issues in Southeast Asia
SOCI 220S (SOC 220S)	Race, Gender, and Class
SOCI 275S (SOC 275S)/WGS 275S	Gender and Society
WGSS 263S (WGS 263S)	Introduction to Women's & Gender Studies

### Group VIII: Ethics and Human Values (E)

Ethics and Human Values courses familiarize students with one or more traditions of ethical thought. These courses rigorously

present the basic concepts and forms of reasoning that define and distinguish each tradition. The focus of these courses may be on one or more of these traditions, or on a concept such as justice or the good life as conceptualized within one or more of these traditions, or on a professional practice within a particular tradition.

Upon completion of an Ethics and Human Values course, students will be able to:

1. correctly apply the basic concepts and forms of reasoning from the tradition or professional practice they studied to ethical issues that arise within those traditions or practices;
2. analyze and critically evaluate the basic concepts and forms of reasoning from the tradition or professional practice they studied.

Course #	Title
AHMS 270E (MED 280E)	Medical Law and Ethics (Ethics in the Health Professions)
ANTY 191E	International Human Rights(one time only designation for autumn 2013)
ANTY 456E	Ethics and Anthropology
ANTY 326E	Indigenous Peoples and Global Development
ANTY 403E (ANTH 403E)	Ethics and Anthropology
BGEN 320E (MGMT 320E)	Business Ethics and Social Responsibility (Business Ethics)
CHMY 302E (CHEM 334E)	Chemical Literature and Scientific Writing
CLAS 365E	Roots of Western Ethics
CSCI 215E (CRT 122E)	Ethics and Information
CSCI 216E (SCI 220E)	Robots, Genetic Engineering, and Ethics
CSCI 315E (CS 415)	Computer, Ethics, and Society
EDU 407E (C&I 407E)	Ethics and Policy Issues
GEO 304E (GEOS 304E)	Science and Society
HC 122E	Ways of Knowing II
HC 320E	Research Portfolio Seminar
HSTR 272E (HIST 226E)	Terrorism: Violence in the Modern World (Terrorism from the French Revolution to Today)
<a href="#">HSTR 364E (HIST 364)</a>	<a href="#">Environmental History (one time only designation for spring 2014)</a>
<a href="#">HSTR 472E (HIST 460E)</a>	<a href="#">Problems of Peace and Security (one time only designation for spring 2014)</a>
HTH 475E (HHP 475E)	Legal & Ethical Issues in the Health & Exercise Professions
LSH 191 (LS 191)	Same-Sex Relationships & Human Rights (one time only designation for autumn 2013)
MANS 291	Justice and Global Problems(one time only designation for autumn 2013)
NASX 303E (NAS 303E)	Ecological Perspectives of Native Americans
NASX 304E (NAS 301E)	American Indian Religion and Philosophy
NRSM 449E	Climate Change Policy and Ethics
NRSM 489E (FOR 489E)	Ethics, Forestry and Conservation
PHAR 514E	CASE Studies in Pharmacy Ethics
PHL 110E (PHIL 200E)	Introduction to Ethics (Ethics: Great Traditions)
PHL 112E (PHIL 202E)	Introduction to Ethics and the Environment (Ethics and the Environment)
PHL 114E (PHIL 201E)	Introduction to Political Ethics (Political Ethics)
PHL 210E (PHIL 300E)	Moral Philosophy
PHL 321E (PHIL 421E)	Philosophy and Biomedical Ethics (Ethical Issues in Medicine)
PSCI 250E (PSC 150E)	Introduction to Political Theory
RLST 281E	Comparative Ethics
SW 410E	Social Work Ethics
WRIT 240E (WTS 240E)	Arguments and Contemporary Issues (Rhetoric and Ethics: Writing Arguments about Contemporary Issues)

### Group IX: American and European Perspectives (Y)

These courses present a critical introduction to the antecedents, principles, institutions, cultures, traditions and legacies of the United States and Europe.

Upon completion of an American and European Perspective course, students will be able to:

1. Demonstrate informed and reasoned understanding of American and/or European historical and contemporary behavior, ideas, institutions, and culture; and
2. Analyze and evaluate what is distinctive and significant about the American and/or European experience and legacy.

Course #	Title
ANTY 122S (ANTH 102S)	Race and Minorities
ARTH 201H (ART 151H)	Art of World Civilizations II: Renaissance to Modern
ARTH 435 (ART 389H)	American Art
GRMN 351H (GERM 303H/MCLG 330H/LS 321H)	German Culture to 1900 (German Culture, Beginnings to 1900)

GRMN 352H (GERM 304H/MCLG 331H/LS 322H)	German Culture, 1900 to Present
GRMN 362Y (GERM 362H/MCLG 231H/LS 221H)	Germanic Mythology and Culture
HC 122E	Ways of Knowing II
HSTA 101H/103H (HIST151H/154H)	American History II/ Honors American History I (The Americans: Conquest to Capitalism & Honors)
HSTA 102H/104H (HIST152H/ 155H)	American History II/ Honors American History II (The Americans: 1877 to the Present)
HSTR 101H/103H (HIST104H/107H)	Western Civilization I /Honors Western Civilization I (European Civilization to 1715)
HSTR 102H/104H (HIST105H/108H)	Western Civilization II / Honors Western Civilization II (Modern Europe)
HSTR 240H (HIST 201H)	East Asian Civilizations
HSTR 377H (HIST 330H)	European International Relations (European International Relations: Origins of the State System to 1870)
HSTR 380H (HIST 331H)	Foreign Relations of the Great Powers
JRNL 102Y (JOUR 110Y)	News Literacy
LIT 222L (ENLT 219L)	British Literature: Victorian to Contemporary
MCLG 105Y, RUSS 105Y, LS 105Y	Introduction to Russian Culture
MUSI 301H (MUS 324H)	Music History I (History of Music I)
MUSI 302H (MUS 325H)	Music History II (History of Music II)
PHL 261Y (PHIL 251Y)	History of Ancient Philosophy
PHL 262Y (PHIL 252Y)	History of Modern Philosophy
PSCI 210S (PSC 100Y)	Introduction to American Government
RUSS 105H	Introduction to Russian Culture
THTR 331Y (DRAM 321H)	Theatre History II

### Group X: Indigenous and Global Perspectives (X)

This perspective instills knowledge of diverse cultures in comparative and thematic frameworks. Students are encouraged to cultivate ways of thinking that foster an understanding of the complexities of indigenous cultures and global issues, past and present. Students will learn how geographically and culturally separate parts of the world are linked by various, multiple interactions.

Indigenous studies focus upon "first peoples" and their descendants who derive their cultural communal identities from their long-standing and/or historical habitation of particular places. These courses foster an appreciation for indigenous peoples, their histories and cultures, and their struggles both to maintain their ways of life and gain equal positions in world spheres of power and change.

Global studies investigate how societies and nations interact through human endeavor and /or natural processes. These courses encourage students to relate their knowledge of particular parts of the world, with their individual identities, and to larger trends and issues that affect multiple societies and environments. These include regional, national, and even transnational cultural flows, as well as a multiplicity of environmental processes and economic relationships.

Upon completion of an Indigenous and Global Perspective course, students will be able to:

1. place human behavior and cultural ideas into a wider (global/indigenous) framework, and enhance their understanding of the complex interdependence of nations and societies and their physical environments;
2. demonstrate an awareness of the diverse ways humans structure their social, political, and cultural lives; and
3. analyze and compare the rights and responsibilities of citizenship in the 21<sup>st</sup> century including those of their own societies and cultures.

Course #	Title
ANTY 101H (ANTH 101H)	Anthropology and the Human Experience (Introduction to Anthropology)
<a href="#">ANTY 103H</a>	<a href="#">Introduction to Latin American Studies</a>
ANTY 133H (ANTH 103H)	Food and Culture
ANTY 141H (ANTH 106H)	The Silk Road
ANTY 191E	International Human Rights (one time only designation for autumn 2013)
ANTY 220S	Culture & Society
ANTY 241H	Central Asian Cultures and Civilizations: Peoples and Environments
ANTY 251H (ANTH 251H)	Foundation of Civilization
ANTY 254H (ANTH 252H)	Archaeological Wonders of the World
ANTY 306X (ANTH 341X)	Contemporary Issues of American Indians
ANTY 323X ANTH 323X)	Native Peoples of Montana
ANTY 326E (ANTH 385E)	Indigenous Peoples and Global Development
ANTY 330X (ANTH 330X)	People and Cultures of the World
ANTY 351H (ANTH 351H)	Archaeology of North America
ANTY 352X (ANTH 352X)	Archaeology of Montana

ANTY 354H (ANTH 354H)	Mesoamerican Prehistory
ANTY 388 (ANTH 388X)	Native American Health and Healing
ANTY 465X (ANTH 357X)	Archaeology of the Southwestern United States
ARTH 200H (ART 150H)	Art of World Civilization: Ancient to Medieval Art
<del>BMGT 391X</del>	<del>Sustaining Human Society and the Natural Environment (one time only designation for spring 2014)</del>
CCS 103X	Introduction to Climate Change: Science and Society
COMX 204X (COMM 251X)	International and Development Communication
COMX 212X	Introduction to Intercultural Communication
DANC 360L (DAN 335L)	World Dance
ECNS 317X (ECON 350X)	Economic Development
GPHY 191X	Green Cities for the 21st Century(one time only designation for autumn 2013)
GPHY 243X (GEOG 207X)	Africa
GPHY 245X (GEOG 213X)	The Middle East
HSTR 230H (HIST 286H)	Colonial Latin America
HSTR 231H (HIST 287H)	Modern Latin America
HSTR 241H	Central Asian Cult & Civ
HSTR 384E (HIST 335E)	History of International Human Rights (International Human Rights)
JPNS 150H (JPNS 210H)	Japanese Culture and Civilization
LING 375X	Endangered Languages
LSH 102H (LS 102H)	Introduction to South & Southeast Asia
LS/RLST 232H (RELS 232H)	Buddhism
LS/RLST 234X (RELS 234)	Hinduism
LS/RLST 236X (RELS 236)	Chinese Religions
LS/RLST 238X (RELS 238)	Japanese Religion
MANS 195X	GLI:Global Challenges for the 21st Century(one time only designation for autumn 2013)
MCLG 100H	Introduction to Latin American Studies
MUSI 207H (MUS 136H)	World Music (Music of the Worlds People)
NASX 105H (NAS 100H)	Introduction to Native American Studies
NASX 201X (NAS 201X)	Indian Culture as Expressed through Language
NASX 210X (NAS 210X)	Native American Sports and Games
NASX 231X (NAS 231X)	Indigenous World View Perspectives
NASX 235X (NAS202L)	Oral and Written Traditions of Native America
NASX 303E (NAS 303E)	Ecological Perspectives of Native Americans
NASX 304E (NAS 301E)	American Indian Religion and Philosophy
NASX 354X (NAS 324X)	Indians of Montana
NASX 405 (NAS 429X)	Gender Issues in Native American Studies
NASX 464X (NAS 464X/HSTA 465)	History of American Indian Affairs to 1776
NASX 465X (NAS 465X/HSTA 452)	History of American Indian Affairs in the 19th Century
NASX 466X (NAS 466X/HSTA 453)	History of Indian Affairs from 1890
NASX 475X (NAS 400X)	Tribal Sovereignty
PSCI 230X (PSC 130X)	Introduction to International Relations
PTRM 345X (RECM/FOR 345X)	Sustaining Human Society and the Natural Environment
SOCI 212S (SOC 212S)	Social Issues in Southeast Asia
SSEA 102H	Introduction to South & Southeast Asia
SSEA 202X/LS 202X (AS 202S)	Introduction to India
WGSS 191 (WGS 191)	Women's Rights and Women's Roles Around the World(one time only designation for autumn 2013)

### Group XI: Natural Science

These courses present scientific conclusions about the structure and function of the natural world, and demonstrate or exemplify scientific questioning and validation of findings.

Upon completion of a Natural Science course, a student will be able to:

1. understand the general principles associated with the discipline(s) studied;
2. understand the methodology and activities scientists use to gather, validate and interpret data related to natural processes;
3. detect patterns, draw conclusions, develop conjectures and hypotheses, and test them by appropriate means and experiments;
4. understand how scientific laws and theories are verified by quantitative measurement, scientific observation, and logical/critical reasoning;
5. and understand the means by which analytic uncertainty is quantified and expressed in the natural sciences

Courses without a laboratory experience

Course #	Title
ANTY 210N (ANTH 210N)	Introduction to Physical Anthropology
ANTY 211N (ANTH 211N)	Human Genetics
ASTR 131N	Elementary Astronomy I
ASTR 132N	Elementary Astronomy II
BIOB 170N (BIOL 108N)	Principles of Biological Diversity (Diversity of Life)
BIOE 172N (BIOL 121N)	Introductory Ecology
BIOH 191	Special Topics(one time only designation for autumn 2013)
BIOL 130N	Evolution and Society
BIOL 135N	Biology of Yellowstone Hot Springs
BIOM 250N (BIOL 106N)	Microbiology for Health Sciences (Elementary Medical Microbiology)
BIOO 101N (BIOL 201N)	Survey of Montana Wildlife & Habitats (Montana Wildlife)
CHMY 121N (CHEM 151N)	Intro to General Chemistry (General and Inorganic Chemistry)
CHMY 123N (CHEM 152N)	Intro to Organic and Biochem (Organic and Biological Chemistry)
CHMY 191N	Science in the 21st Century(one time only designation for autumn 2013)
CJUS 125N (ANTH 286N)	Fund of Forensic Science (Survey of the Forensic Sciences)
CSD 221N	Fundamentals of Acoustics: Applications in Speech, Hearing & Language
ERTH 303N (GEOG 322N)/CCS 303N	Weather and Climate
ENSC 105N (EVST101N)	Environmental Science
GEO 101N (GEOS 100N)	Intro to Physical Geology (General Geology)
GEO 105N (GEOS 105N)	Oceanography
GEO 107N (GEOS 103N)	Natural Hazards (Earthquakes, Volcanoes, and Natural Hazards)
GEO 108N (GEOS 108N)/CCS 108N	Climate Change, Past and Future
GPHY 111N (GEOG 102N)	Introduction to Physical Geography
GPHY 411N (GEOG 426N)	Biogeography
NRSM 246N (FOR 246)	Natural History, Ecology & Environmental Management South Queensland
NRSM 271N (FOR/RSCN 271N)	Conservation Ecology
NUTR 221N (HHP 236N)	Basic Human Nutrition (Nutrition)
PHAR 110N	Use and abuse of Drugs
PHAR 145N (BMED 145N)	Introduction to Cancer Biology
PHSX 141N (PHYS 141N)	Relativity: From Galileo to Einstein and Beyond
PHSX 205N (PHYS 111N)	Fundamentals of Physics I
PHSX 207N (PHYS 112N)	Fundamentals of Physics II
PHSX 215N (PHYS 211N)	Fundamentals of Physics with Calculus I
PHSX 217N (PHYS 212N)	Fundamentals of Physics with Calculus II
PSYX 250N (PSYC 270N)	Fundamentals of Biological Psychology
SCN 100N	Issues in Biology
SCN 105N	Montana Ecosystem
SCN 175N	Integrated Physical Science
WILD 105N (WBIO 105N)	Wildlife and People

### Courses with a laboratory experience:

Course #	Title
ANTY 213N	Introduction to Physical Anthropology Lab
ASTR 134N	Elementary Astronomy Laboratory I
ASTR 135N	Elementary Astronomy Laboratory II
ASTR 142N	The Evolving Universe: Theories and Observation
BIOB 101N (BIOL 100N)	Discover Biology (The Science of Life)
BIOB 160N (BIOL 110N)	Principles of Living Systems (Principles of Biology)
BIOB 171N (BIOL 109N)	Principles of Biological Diversity Lab (Diversity of Life Lab)
BIOO 105N (BIOL 120N)	Introduction to Botany (General Botany)
CHMY 101N (CHEM 101N)	Chemistry for the Consumer (Consumer Chemistry)
CHMY 124N (CHEM 154N)	Intro to Org & Biochem Lab (Organic and Biological Chemistry Laboratory)
CHMY 141N (CHEM 161N)	College Chemistry I
CHMY 143N (CHEM 162N)	College Chemistry II
ENSC 245N (FOR 210N)	Introductory Soils
FORS 241N (FOR 241N)	Dendrology
GEO 102N (GEOS 101N)	Intro to Physical Geology Lab (General Geology Laboratory)
GEO 106N (GEOS 106N)	The History of Life
PHSX 206N (PHYS 113N)	Physics Laboratory I
PHSX 208N (PHYS 114N)	Physics Laboratory II
PHSX 216N (PHYS 213N)	Physics Laboratory I with Calculus
PHSX 218N (PHYS 214N)	Physics Laboratory II with Calculus
SCI 225N	General Science: Physical and Chemical Science
SCI 226N	General Science: Earth and Life Science
SCN 105N	Montana Ecosystems
SCN 201N	Human Anatomy & Physiology I
SCN 202N	Human Anatomy & Physiology II

SCN 260N

The Biology of Behavior

**Courses that satisfy more than one Group are listed below:**

<b>Course # and Title</b>	<b>General Education Groups</b>
AASC 167H Nature and Society	I. English Writing Skills and VI. Historical and Cultural Studies (H)
ANTY 101H (ANTH 101) Anthropology and the Human Experience	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ANTY 122S (ANTH 102) Race and Minorities	VII. Social Sciences (S) and IX. American and European Perspectives (Y)
ANTY 133H (ANTH 103H) Food and Culture	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ANTY 141H (ANTH 106H) The Silk Road	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ANTY 191 International Human Rights	VIII. Ethics and Human Values (E) and X. Indigenous and Global Perspectives (X) (one time only designation for autumn 2013)
ANTY 220S Culture and Society	VII. Social Sciences (S) and X. Indigenous and Global Perspectives (X)
ANTY 241H Central Asian Cultures and Civilizations: Peoples and Environments	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ANTY 251H (ANTH 251H) Foundation of Civilization	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ANTY 254H (ANTH 252H) Archaeological Wonders of the World	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ANTY 326E (ANTH 385E) Indigenous Peoples and Global Development	VIII. Ethics and Human Values (E) and X. Indigenous and Global Perspectives (X)
ANTY 351H (ANTH 351H) Archaeology of North America	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ANTY 354H (ANTH 354H) Mesoamerican Prehistory	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ANTY 403E Ethics and Anthology	I. English Writing Skills and VIII. Ethics and Human Values (E)
ARTH 200H (ART 150H) Art of World Civilization: Ancient to Medieval Art	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
ARTH 201H (ART 151H) Art of World Civilizations II: Renaissance to Modern	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
ARTH 250L (ART 203L) Introduction to Art Criticism	I. English Writing Skills and V. Literary and Artistic Studies (L)
ARTH 434H (ART 368H/NAS 368H) Latin American Art	I. English Writing Skills and VI. Historical and Cultural Studies (H)
CHMY 302E (CHEM 334) Chemical Literature and Scientific Writing	I. English Writing Skills and VIII. Ethics and Human Values (E)
CLAS 251L (MCLG 251L) The Epic	I. English Writing Skills and V. Literary and Artistic Studies (L)
CLAS 252L (MCLG 252L) Greek Drama: Politics on Stage	I. English Writing Skills and V. Literary and Artistic Studies (L)
CSCI 215E (CRT 122E) Ethics and Information Technology	I. English Writing Skills and VIII. Ethics and Human Values (E)
CSCI 216E Robots, Genetic Engineering, and Ethics	I. English Writing Skills and VIII. Ethics and Human Values (E)
DANC 360L (DAN 335L) World Dance	V. Literary and Artistic Studies (L) and X. Indigenous and Global Perspectives (X)
GRMN 351H (GERM 303H) German Culture to 1900	I. English Writing Skills and VI. Historical and Cultural Studies (H)
GRMN 352H (GERM 304H) German Culture from 1900 to the Present	I. English Writing Skills and VI. Historical and Cultural Studies (H)
HC 122E Ways of Knowing II	VIII. Ethics and Human Values (E) and IX. American and European Perspectives (Y)
HSTA 101H/103H (HIST 151H/154H) American History I	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
HSTA 102H/104H (HIST 152H/155H) American History II	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
HSTR 101H/103H (HIST 104H/107H) Western Civilization I	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
HSTR 102H/104H (HIST 105H/108H) Western Civilization II	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
HSTR 230H Colonial Latin America	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
HSTR 231H Modern Latin America	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
HSTR 240H East Asian Civilizations	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
HSTR 241H Central Asian Cult & Civ	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
HSTR 374E War, Peace, and Society	VIII. Ethics and Human Values (E) and VI. Historical and Cultural Studies (H)
HSTR 377H (HIST 330H) European International Relations: Origins of the State System to 1870	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
HSTR 380H Foreign Relations of the Great Powers	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
HSTR 384E History of International Human Rights	VIII. Ethics and Human Values (E) and IX. American and European Perspectives (Y)
JPNS 150H (JPNS 210H) Japanese Culture and Civilization	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
LIT 110L (ENLT 120L) Introduction to Literature	I. English Writing Skills and V. Literary and Artistic Studies (L)
LIT 120L (ENLT 121L) Poetry	I. English Writing Skills and V. Literary and Artistic Studies (L)
LIT 210L (ENLT 224L) American Literature I	I. English Writing Skills and V. Literary and Artistic Studies (L)
LIT 211L (ENLT 225L) American Literature II	I. English Writing Skills and V. Literary and Artistic Studies (L)
LIT 220L (ENLT 217L) British Literature: Medieval through Early Modern	I. English Writing Skills and V. Literary and Artistic Studies (L)

LIT 221L (ENLT 218L) Enlightenment to Romanticism	I. English Writing Skills and V. Literary and Artistic Studies (L)
LIT 222L (ENLT 219L) British Literature: Victorian to Contemporary	V. Literary and Artistic Studies (L) and IX. American and European Perspectives (Y)
LIT 342L (ENLT 338L) Montana Writers (Montana Literature)	I. English Writing Skills and V. Literary and Artistic Studies (L)
LSH 151I/152L (LS 151/152) Introduction to the Humanities	I. English Writing Skills and V. Literary and Artistic Studies (L)
M 162 (MATH 150) Applied Calculus	II. Mathematics and III. Modern and Classical Languages or Symbolic Systems
M 171 (MATH 152) Calculus I	II. Mathematics and III. Modern and Classical Languages or Symbolic Systems
<a href="#">MCLG 100H/ANTY 103H Introduction to Latin American Studies</a>	<a href="#">VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)</a>
MUSI 207H (MUS 136H) World Music	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
MUSI 301H (MUS 324H) Music History I	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
MUSI 302H (MUS 325H) Music History II	I. English Writing Skills and VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
NASX 105H (NAS 100H) Introduction to Native American Studies	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
NASX 235X (NASL 202X) Oral and Written Traditions of Native America	I. English Writing Skills and V. Literary and Artistic Studies (L) and X. Indigenous and Global Perspectives (X)
NASX 303E (NAS 303E) Ecological Perspectives of Native Americans	VIII. Ethics and Human Values (E) and X. Indigenous and Global Perspectives (X)
NASX 304E (NAS 301E) American Indian Religion and Philosophy	VIII. Ethics and Human Values (E) and X. Indigenous and Global Perspectives (X)
PHL 210E (PHIL 300E) Moral Philosophy	I. English Writing Skills and VIII. Ethics and Human Values (E)
PSCI 210S (PSC 100S) Introduction to American Government	VII. Social Sciences (S) and IX. American and European Perspectives (Y)
RUSS 105H Introduction to Russian Culture	VI. Historical and Cultural Studies (H) and IX. American and European Perspectives (Y)
SOCI 212H (SOC 212H) Social issues in Southeast Asia	VII. Social Sciences (S) and X. Indigenous and Global Perspectives (X)
SSEA 102H Introduction to South and Southeast Asia	VI. Historical and Cultural Studies (H) and X. Indigenous and Global Perspectives (X)
STAT 216 (MATH 241) Intro to Statistics	II. Mathematics and III. Modern and Classical Languages or Symbolic Systems
STAT 451 (MATH 444) Statistical Methods I	II. Mathematics and III. Modern and Classical Languages or Symbolic Systems
THTR 330H (DRAM 320H) Theatre History I	I. English Writing Skills and VI. Historical and Cultural Studies (H)
THTR 331Y (DRAM 321H) Theatre History II	I. English Writing Skills and IX. American and European Perspectives (Y)
WRIT 240E (WTS 240E) Rhetoric and Ethics: Writing Arguments about Contemporary Issues	I. English Writing Skills and VIII. Ethics and Human Values (E)

### General Education for Transfer Students

Students transferring credits from other institutions must meet all requirements by transfer, by examination, or by completing courses at The University of Montana-Missoula.

According to Board of Regents policy, students who can demonstrate that they have completed an approved lower-division general education requirement at an approved Montana institution of higher education will be deemed to have completed general education requirements except for the upper-division writing proficiency assessment and the upper-division writing requirements in their majors.

Transfer students who believe they have completed an approved lower-division general education requirement at another Montana school should request that the registrar of the other school send a letter to the University Registrar's Office certifying that the requirement has been met.

If students transfer 20 or more approved Montana University System core course credits with their initial registration at UM-Missoula, they may choose to complete the MUS General Education rather than the UM-Missoula General Education requirement

Students governed by the 2006-2007 catalog or later catalogs must earn a traditional letter grade of C- or better in courses used to satisfy General Education (except English composition and the Mathematical Literacy course must be a C or better). Students enrolled in a post-secondary institution prior to autumn 2006 may be eligible to choose an earlier governing catalog. Refer to the Governing Catalog information in the previous section. See index.

Students who have completed a bachelor degree at the University or elsewhere will be presumed to have completed the General Education Requirement.

Admissions & New Student Services will evaluate all transfer credits for General Education credit. Students who wish to appeal that evaluation may petition the Graduation Appeals Subcommittee of the Academic Standards and Curriculum Review Committee, but such petitions must be initiated during the first semester of the student's attendance following that evaluation.



## Major and Minor Requirements

### Major Requirements

#### Declaring a Major and Changing a Major

Students indicate on the application for admission the major or majors in which they are interested. Students undecided as to a field of interest may elect to be Undeclared while making program and career decisions. Students must declare a major in a degree granting program prior to completion of 45 credits or after three semesters, whichever occurs first.

Students must complete a major in order to earn a degree or certificate.

Students may change their majors or minors by obtaining the proper approval on a change of major or minor form available from the Registration Counter in Griz Central in the Lommasson Center. Because of enrollment limitations, students must request a change to a program in the Missoula College by completing an application for admission and submitting it to the College. Students whose initial admission was to the Missoula College may change to a major outside the College by submitting an application for admission to Enrollment Services-Admissions & New Student Services in the Lommasson Center.

#### Credits Required for a Major

Students in a bachelor degree program must complete a minimum of 30 credits in their major. Most majors require more.

Students may elect to earn a single degree with more than one major. Students may complete a double major (two majors) or any number of majors. All requirements for the majors must be completed even though students will receive a single degree such as a Bachelor of Arts with majors in Psychology and Sociology. It is only necessary to complete the total credit requirement for a single bachelor degree.

Courses completed to satisfy the requirements of a major also may be applied toward the General Education Requirement if they appear on the list of approved courses at the time they are taken.

Students in programs in the Missoula College complete requirements as listed in the College section of this catalog. See index.

#### Credit Limitations in a Major

A maximum of 60 credits in the student's major may be counted toward the baccalaureate degree, except some options in Health and Human Performance and Education, majors in Computer Science, and majors in the Schools of Business Administration, College of Visual and Performing Arts, Journalism, Law, The College of Health Professions and Biomedical Sciences and the College of Forestry and Conservation are allowed more. Students with combined majors, as opposed to two majors, are allowed to apply 75 credits in the major.

#### Grade Requirement

Courses taken to satisfy the requirements of the major must be completed with a grade of C- or better.

A minimum grade average of 2.00 in all work attempted in the major at The University of Montana-Missoula is required for graduation.

#### Options

Groups of courses have been identified which lead to a specialization within one major or between two or more majors. These specializations are called options. The names of approved options will be recorded on the permanent records of those students who have satisfactorily completed the requirements as given in the catalog governing their graduation. A student desiring a particular option must satisfy the requirements of the major offering it. If one option is offered within two or more majors, the student must satisfy the requirements of only one.

Only courses listed within the supporting major count toward the 60 credit limitation in the major. Courses in other fields do not

count toward the maximum of 60 credits in the major even though they may be required or elected for the options.

If one major has two or more options, a student may satisfy the requirements for more than one option so long as the maximum credit limitations are observed.

#### **Minor Requirements**

Baccalaureate students may elect to complete one or more minors in fields outside their majors. Minors may be in fields unrelated to students' majors or they may be complementary or supportive of majors. A student may not take a minor in the same field of study as his or her major.

A student will not be required to satisfy the requirements of a minor in order to graduate unless that minor is required by the student's major department or school.

Courses completed to satisfy the requirements of a minor also may be applied toward the General Education Requirement if they appear on the list of approved courses at the time they are taken.

#### **Credits Required for a Minor**

To complete a minor, students must earn at least 18 credits in an approved minor listed in this catalog and complete a baccalaureate degree.

Students possessing a baccalaureate degree from an accredited college or university may earn a minor if they have been accepted by the University as an undergraduate degree student. In addition to meeting minor requirements, students must earn from The University of Montana-Missoula a minimum of 9 credits in the minor field and 15 credits overall.

#### **Grade Requirement**

Courses taken to satisfy the requirements of the major and the minor must be completed with a grade of C- or better. Some majors require a C or higher grade for some of the required courses. Specific information regarding the major requirements can be found in the majors individual section of the catalog.

A minimum grade average of 2.00 in all work attempted in the minor at The University of Montana-Missoula is required for graduation with the minor.

#### **Teaching Minors**

Teaching minors are separate entities from degree minors as described in this section. Teaching minors are identified and requirements listed in the College of Education section of this catalog.

#### **Degree/Certificate Requirements for Graduation**

##### **Catalog Governing Graduation**

[This portion of the catalog was edited after the catalog was published. Updated October 17, 2013.](#)

*(Revised October 2013)* Students may graduate fulfilling University and departmental major requirements in any single University of Montana-Missoula catalog under which the student has been enrolled during the six years prior to graduation. (For example, the 2013-2014 catalog can be used through summer 2020). The student MUST meet major requirements under the same catalog under which the student is meeting University requirements (general education requirements); minor requirements may be satisfied under a different catalog within the six year period. University or departmental requirements may change to comply with accreditation requirements, professional certification and licensing requirements, etc. [As of October 10, 2013 the Writing Proficiency Assessment \(WPA\) is no longer required to satisfy general education requirements regardless of catalog governing graduation.](#) ~~Pharmacy students should consult the Professional Pharmacy Curriculum section in this catalog.~~

Students transferring to the University of Montana-Missoula may choose to graduate fulfilling requirements under the UM catalog in effect when they were enrolled at their original institution, provided the chosen catalog is not more than six years old

at the time of graduation. Eligible students who choose an earlier catalog must notify the Admissions Office at the time of admission so their transfer work can be evaluated accordingly

#### Applying for Certificate and Degree Candidacy

To become a candidate for a degree, the student must file formal application at the Registration Counter in Griz Central the beginning of the semester preceding the semester in which he or she expects to graduate. Deadline dates are specified in the Class Schedule. In the Missoula College, candidates for certificates and degrees must file a formal application with the Registrar's Office in the College at the beginning of the semester in which they expect to graduate

#### Credits Required for a Certificate of Completion

See the specific course and credit requirements for certificate programs listed in the Missoula College and Linguistics sections of this catalog. See index. In addition, students in the Missoula College must complete successfully:

1. Mathematics one course from M 105T (MAT 100T) or above.
2. Communications and Human Relations PSYX 163T (PSY 105T) or PSYX 161S (PSY 110T) and one COM course as required by the specific program. Some programs have these skills imbedded within other courses which will satisfy this requirement.

#### Credits Required for a Degree

##### Associate of Applied Science

To receive an Associate of Applied Science (A.A.S.) Degree from the Missoula College, a student must fulfill the following criteria:

1. Complete a minimum of 60 credits.
2. Possess a minimum grade average of 2.00 in all work attempted at the University of Montana-Missoula and a minimum grade of C- in all classes that count toward major, minor or general education requirements.
3. Complete the specialized degree requirements of his or her specific program.
4. Complete the following related subject area of core collegiate-level courses:
  1. **Communication:** the ability to formulate and adapt messages to a variety of audiences through written, verbal, and nonverbal processes. To ensure all graduates have developed skills in the area of communication, students must successfully demonstrate competency in one of the following writing courses: WTS 101, WTS 115, or other approved writing course. Furthermore it is recommended that all students complete one of the following communication courses, such as COM 150S, COM 160A, or other approved courses to further develop understanding of human communication processes
  2. **Computation:** the ability to complete basic algebraic manipulations and achieve mathematical literacy. To ensure all graduates have achieved computational literacy, students must demonstrate competency in MAT 100 or a higher number mathematics course.
  3. **Human Relations:** the ability to analyze social problems and structure, ethical norms of professions and society, human behavior, or human values systems. To ensure all graduates have explored dimensions in human relations, students must demonstrate competency in on of the following courses: COM 150S, COM 210E, CRT 122E, PSY 100S, PSY 110S, SUR 204E, or other approved ethical and human values or social sciences course.
  4. **Computer Literacy:** the ability to utilize a modern computing system including web applications and an office productivity suite to research, develop and produce information in a 21st century society. To ensure all graduates have achieved basic technology literacy, students must demonstrate competency in one of the following: CRT 100, CRT 103T, or other approved applied computing course
  5. **Professional Capstone:** the opportunity to apply skills acquired through a specialized field of study in a professional realm. To ensure all graduates the opportunity to apply specialized skills in a professional environment, it is recommended student complete a program-related internship, field experience, capstone project, or professional certification activity.

##### Associate of Arts

A total of 60 credits is required for graduation with an Associate of Arts (A.A.) degree. The minimum grade average for graduation is 2.00 in courses taken on the traditional letter grade (A F) basis. To receive an Associate of Arts degree all students must complete successfully all the general education requirements for a baccalaureate degree, except for the Upper-Division Writing Proficiency Assessment.

#### **Bachelor Degrees**

A total of 120 credits is required for graduation with a bachelor degree; except a greater number is required in teacher education programs, pharmacy, physical therapy and the Bachelor of Applied Science. See the College of Health Professions and Biomedical Sciences section of this catalog.

Students may elect to earn two or more bachelor degrees. Those deciding to earn two or more degrees must complete all the requirements of the majors for each degree. In addition, students must earn for each degree a minimum of 30 credits beyond the number required for the first degree. The degrees may be earned concurrently or at different times.

#### **Upper-Division Requirement**

All students must complete a minimum of 39 credits in courses numbered 300 and above to meet graduation requirements for the first baccalaureate degree. Upper division credits transferred from other four year institutions will count toward the 39 credit requirement.

#### **Residency Requirements for Degrees/Certificates**

University of Montana credit is the credit earned in any course which has been approved to be listed in the University of Montana-Missoula catalog and which has been approved for offering by the department chair and dean of the school or college in which the course is taught. University of Montana-Missoula credit may be offered at any location.

#### **Requirements for Missoula College Certificate of Completion and Associate of Applied Science Degree**

A minimum of 51% of the required number of credits must be earned from the University of Montana-Missoula

#### **Requirements for the Associate of Arts Degree**

A minimum of 30 credits of the required number must be earned from the University of Montana-Missoula.

#### **Requirements for the First Bachelor Degree**

A first bachelor degree is defined as any bachelor degree earned by a student who has not previously earned a bachelor degree from the University of Montana-Missoula. Thus, the requirements below also apply to any student who previously earned a bachelor degree at another institution and now is seeking a bachelor degree from the University of Montana-Missoula.

a) A minimum of 30 credits of the required number must be earned from the University of Montana-Missoula. b) A minimum of 30 credits of the required number must be earned in study on the University of Montana-Missoula campus.

c) Of the last 45 credits required for the degree, at least 30 of these must be earned from the University of Montana-Missoula. Students attending elsewhere on a University approved exchange may be exempt from this requirement with the prior written approval of their major department chair or dean.

#### **Requirements for the Second Bachelor Degree**

In regard to residency requirements, a second bachelor degree is defined as any bachelor degree earned by a student who previously had earned a bachelor degree from the University of Montana-Missoula.

A minimum of 20 credits of the required 30 credits must be earned in study on the University of Montana-Missoula campus.

#### **Credit Maximums**

The amount of credit which may be counted toward the minimum credit requirements for the bachelor (B.A./B.S.), associate of

science (A.S.), and associate of arts (A.A.) degrees is limited in certain areas follows:

Category	For Bachelor Degree	For AA or AS Degree
Technical courses (course number suffix of 'T') - up to 15 technical course credits can be applied toward the minimum credit requirement for all students, except up to 20 technical course credits can be applied to the minimum course credits for students with an earned A.A.S. degree.	15-20	15-20
Career skills	0	0
Study skills courses (e.g. AASC 101, C&I 160)	2	2
Physical education activity/skills courses (e.g. DANC 325 (DRAM 385), ACT 101-207 (HHP 100-179), MSL 204 and 315 (MS 203 and 315))	4	4
Military Science Leadership Courses (contracted students may present 24 credits)	12	12
Music performance (MUSI 102A, 135A, 136A (MUS 100A, 115A, 116A) MUSI 123 (MUS 117A), 235 (MUS 215), 236 (MUS 216), 218 (MUS 218))	6	6
Ensemble music (MUSI 112A, 114A, 110A, 131A and 122A (MUS 107A, 110A, 113A, 114A and 150A))	8	8
Credit/No Credit credits	18	18
Internship credits in 198/298/398/498 (or previous numbers 190/290/390/490)	6	6

Credits attempted in these areas which are beyond the maximum applicable will remain on the students' permanent record but cannot be used toward graduation.

#### Grade Average Requirement

A minimum grade average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation.

#### Graduation with Honors or High Honors

Students will be awarded their certificates, associate of applied science, and bachelor degrees with honors if they receive the recommendation of their major department or school and the faculty of the University of Montana-Missoula. At the time of graduation they must have a 3.40 or higher grade average in the following four areas:

1. All work attempted at the University of Montana- Missoula.
2. The combination of all work attempted at the University of Montana-Missoula and all other work, including failing grades, transferred to this University.
3. All work attempted in the major field at the University of Montana-Missoula.
4. The combination of all work attempted in the major field at the University of Montana-Missoula and all other work in the major field, including failing grades, transferred to this University.

Students will be awarded their certificates, associate of applied science, and bachelor degrees with high honors if they have the recommendations mentioned above and, at the time of graduation, have a 3.70 or higher grade average in the four areas listed.

In the School of Law, the grade average for honors is computed on law credits only.

#### Accreditation

The University of Montana-Missoula is accredited by the Northwest Commission on Colleges and Universities (NWCCU).

Accreditation of an institution of higher education by the Northwest Commission on Colleges and Universities indicates that it meets or exceeds criteria for the assessment of institutional quality evaluated through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future.

Institutional integrity is also addressed through accreditation. Accreditation by the Northwest Commission on Colleges and Universities is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding an institution's accredited status by the Northwest Commission on Colleges and Universities should be directed to the administrative staff of the institution.

Individuals may also contact:

Northwest Commission on Colleges and Universities

8060 165th Avenue N.E., Suite 100

Redmond, WA 98052

(425) 558-4224

www.nwccu.org

Accreditation documents may be reviewed in the Provost's Office, located in University Hall Room 126.

Many of the professional schools and departments have special accreditation as well.

**The following table provides detailed information on these special accreditations:**

College of Arts and Sciences	Chemistry	BS, MS, PhD	American Chemical Society (ACS)
College of Arts and Sciences	Computer Science	BS	Computing Accreditation Commission of ABET
College of Arts and Sciences	Psychology, Clinical	PhD	American Psychological Association
College of Arts and Sciences	School Psychology	EdS, PhD	National Association of School Psychologists and American Psychological Association
School of Business Administration	Accounting	BS, MAcct	Association to Advance Collegiate Schools of Business (AACSB-International)
School of Business Administration	Business	BS, MBA	Association to Advance Collegiate Schools of Business (AACSB-International)
Missoula College	Food Service Management	AAS	American Culinary Federation Educational Institute (ACFEI)
Missoula College	Nursing	AAS, AS	Montana State Board of Nursing
Missoula College	Paralegal Studies	AAS	American Bar Association (ABA)
Missoula College	Pharmacy Technology	Certificate	American Society of Health System Pharmacists (ASHSP)
Missoula College	Respiratory Care	AAS	Committee for Accreditation of Respiratory Care (CoARC w/CAAHEP)
Missoula College	Surgical Technology	AAS	Commission on Accreditation of Allied Health Education Programs (CAAHEP)
Phyllis J. Washington College of Education and Human Sciences	Athletic Training	BS	Commission on Accreditation of Allied Health Education (CAATE)
Phyllis J. Washington College of Education and Human Sciences	Counselor Education	MA, Mental Health Counseling; and School Counseling	Council for Accreditation of Counseling and Related Educational Programs (CACREP)
Phyllis J. Washington College of Education and Human Sciences	Communication Science and Disorders	MS in Speech-Language Pathology	American Speech Language Association-Council on Academic Accreditation (ASHA)
Phyllis J. Washington College of Education and Human Sciences	Education	BA, MEd, EdS,	National Council for Accreditation of Teacher Education (NCATE); Montana Board of Public Education
Phyllis J. Washington College of Education and Human Sciences	Co-Teach Preschool, Institute for Educational Research and Service	n/a	National Association for the Education of Young Children (NAEYC)
College of Visual and Performing Arts	Art & Media Arts	BA, BFA, MA, MFA	National Association of Schools of Art and Design (NASAD)
College of Visual and Performing Arts	Theater & Dance	BA, BFA, MA, MFA	National Association of Schools of Theater (NAST)
College of Visual and Performing Arts	Music	BA, BM, BME, MM	National Association of Schools of Music (NASM)
College of Forestry and Conservation	Forest Resources Management	BS	Society of American Foresters (SAF)
College of Forestry and Conservation	Recreation Management	BS	National Recreation and Park Association/American Association for Leisure and Recreation (NRPA/AALR)
School of Journalism	Journalism	BA	Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)
School of Law	Law	JD	American Bar Association (ABA) American Association of Law Schools (AALS)
College of Health Professions and Biomedical Sciences	Pharmacy	PharmD	Accreditation Council for Pharmacy Education (ACPE)
College of Health Professions and Biomedical Sciences	Public Health	MPH	Council on Education for Public Health (CEPH)
College of Health Professions and Biomedical Sciences	Physical Therapy	DPT	Commission on Accreditation in Physical Therapy Education (CAPTE)
College of Health Professions and Biomedical Sciences	Social Work	BA	Council on Social Work Education (CSWE)
College of Health Professions and Biomedical Sciences	Social Work	MSW	Council on Social Work Education (CSWE)

Under construction.

## Contacts, Calendar and Reserved Rights - University of Montana - Missoula

### Contacts

University of Montana Home Page	<a href="http://www.umt.edu">http://www.umt.edu</a>
Enrollment Services/Orientation	(406) 243 6266
Business Services	(406) 243 2223
Missoula College	(406) 243 7882 (In Montana, 1 800 542 6882)
Disability Services TDD	(406) 243 2243
University Villages	(406) 243 6030
Financial Aid	(406) 243 5373
Graduate School	(406) 243 2572
Registrar	(406) 243 2995
Residence Halls	(406) 243 2611
University Switchboard	(406) 243 0211

### Reserved Rights

The right is reserved to change any of the rules and regulations of the University at any time including those relating to admission, instruction and graduation. The right to withdraw curricula and specific courses, alter course content, change the calendar, and to impose or increase fees similarly is reserved. All such changes are effective at such times as the proper authorities determine and may apply not only to prospective students but also to those who already are enrolled in the University.

### The 2013-2014 Calendar

The 2013-2014 Academic Calendar (as well as previous and future calendars) may be viewed via the Provost Office website at the following URL: <http://www.umt.edu/provost/about/academiccalendar.aspx>

A Listing of Important Dates and Deadlines may be viewed via the following URL: [http://events.umt.edu/?calendar\\_id=27&upcoming=upcoming&](http://events.umt.edu/?calendar_id=27&upcoming=upcoming&)

## The Montana University System

The following Strategic Plan was adopted by the Board of Regents in July 2006, and updated in January 2010.

### Mission

The Mission of the Montana University System is to serve students through the delivery of high quality, accessible postsecondary educational opportunities, while actively participating in the preservation and advancement of Montana's economy and society.

### Vision

We will prepare students for success by creating an environment of ideas and excellence that nurtures intellectual, social, economic, and cultural development. We will hold academic quality to be the prime attribute of our institutions, allocating human, physical, and financial resources appropriate to our educational mission. We will encourage scientific development and technology transfer, interactive information systems, economic development and lifelong learning. We will protect academic freedom, practice collegiality, encourage diversity, foster economic prosperity, and be accountable, responsive, and accessible to the people of Montana.

### Introduction

The Montana University System Strategic Plan is the primary planning document of the Board of Regents. The Plan sets forth an agenda for higher education in Montana by delineating the strategic directions, goals, and objectives that guide the Montana University System (MUS).

## History

In July 2006, after several years of study, public dialogue, and internal deliberations, the Board of Regents approved the Strategic Plan. Since then, updates have occurred annually, including revisions to strategic initiatives as well as a refreshing of the data within each goal. The development of the Strategic Plan began with two primary initiatives.

The first was to work more closely with the interim legislature to develop a set of mutually agreed upon accountability measures that would guide the MUS and evaluate progress. Working with the Postsecondary Education Policy and Budget (PEPB) subcommittee of the 57th Legislature, the Board of Regents did develop this set of accountability measures in July 2002. Subsequently, the PEPB subcommittee has updated the accountability measures. This latest set of agreed-upon measures evolved into "shared policy goals" and work to form one base for this strategic plan.

The second initiative was to work with the PEPB Subcommittee to explore new ways for the MUS take a more direct leadership role in the state's economic development. This overall effort, called "Shared Leadership for a Stronger Montana Economy", engaged a broad range of Montanans to prioritize specific initiatives that would help establish a new role for the MUS in strengthening the state's economy. The Governor's Office and several legislative interim committees were included in the effort.

In July 2004, the Board of Regents and the PEPB subcommittee met jointly and agreed on three priority initiatives for immediate implementation:

- Develop stronger business-university system partnerships for workforce training;

- Remove barriers to access for postsecondary education; and

- Expand distance learning programs and training.

## Goals

The Strategic Plan is comprised of three primary goals that contain a series of sub-goal statements and objectives within each area.

### Goal 1: Access & Affordability

Increase the overall educational attainment of Montanans through increased participation, retention and completion rates in the Montana University System.

### Goal 2: Workforce & Economic Development

Assist in the expansion and improvement of the state's economy through the development of high value jobs and the diversification of the economic base.

### Goal 3: Efficiency & Effectiveness

Improve institutional and system efficiency and effectiveness Maintaining the high quality of our institutions and the education provided to our students is not listed as an explicit goal. This is because it is THE MOST IMPORTANT consideration for every goal and initiative of the Montana University System and is considered to be an integral part of every component of this strategic plan.

### More Information

More information is available at the following URL: <http://www.umt.edu/provost/ASP/>

### University of Montana

#### Mission

The University of Montana capitalizes on its unique strengths to create knowledge, provide an active learning environment for



students, and offer programs and services responsive to the needs of Montanans. The University delivers education and training on its four campuses and through telecommunications to sites inside and outside of Montana. With public expectations on the rise, the University asks its students, faculty, and staff to do and accomplish even more than they have in the past. The University has a commitment to education defined in the broadest sense as personal development and citizen preparation, workforce development and training, graduate education and research, service learning, and community building on and off the campuses. The University enhances its programs through continuous quality review University for improvement and remains fully accountable to the citizenry through annual audits and performance evaluations.

### **University of Montana - Missoula**

#### **Mission**

University of Montana-Missoula pursues academic excellence as demonstrated by the quality of curriculum and instruction, student performance, and faculty professional accomplishments. The University accomplishes this mission, in part, by providing unique educational experiences through the integration of the liberal arts, graduate study, and professional training with international and interdisciplinary emphases. The University also educates competent and humane professionals and informed, ethical, and engaged citizens of local and global communities; and provides basic and applied research, technology transfer, cultural outreach, and service benefiting the local community, region, State, nation and the world.

#### **Vision Statements**

In pursuit of its mission, University of Montana-Missoula will:

1. Educate students to become ethical persons of character and values, engaged citizens, competent professionals, and informed members of a global and technological society.
2. Increase the diversity of the students, faculty, and staff for an enriched campus culture.
3. Attain the Carnegie Commission status of Doctoral Research–Extensive University (50 or more doctorates in at least 15 fields annually) and increase funded research to \$100,000,000 annually by 2011.
4. Pursue more partnerships—especially with local communities, businesses and industries, public schools, community and tribal colleges, state and local governments and universities abroad—and expand the training and technology transfer programs to promote community and economic development.
5. Develop the capability and infrastructure for use of information technology to increase the efficiency and productivity of the campus and the state; and
6. Involve and engage the faculty, staff, students, alumni, partners, and friends of the University in institutional governance.

#### **Equal Opportunity**

University of Montana is committed to a program of equal opportunity for education, employment and participation in University activities without regard to race, color, gender, age, religion, creed, political ideas, marital or family status, physical or mental disability, national origin or ancestry, gender identity, or sexual orientation.

### **UNIVERSITY OF MONTANA - MISSOULA Strategic Goals**

The planning context for the University of Montana is framed by the Montana Board of Regents Strategic Plan. The UM Strategic Plan is also known as Core Themes. It is updated annually and its progress is continuously monitored through the compilation and analysis of key outcomes data.

The following five strategic issues form the foundation of the new UM Strategic Plan. The degree to which the University of Montana attends and adheres to these goals will ultimately determine its continued success and value.

#### **PARTNERING FOR STUDENT SUCCESS**

The University will help its students succeed academically and personally so they graduate well-prepared for their careers or further education. The Partnering for Student Success plan identifies six key objectives critical to student success and sets forth actions to promote a successful first year for entering freshmen and to address the needs of returning students. UM seeks to improve students' success by addressing their preparedness for college-level work, improving their transition to

college, providing an integrated early curriculum, increasing student engagement and support, and emphasizing faculty and staff development. As part of the plan, UM created the Office for Student Success, which is charged with developing, implementing, and coordinating initiatives to increase students' persistence toward graduation.

#### EDUCATION FOR THE GLOBAL CENTURY

UM will offer an educational experience at all degree levels that provides graduates the foundation to make positive impacts on a world that is increasingly interconnected. The University's Academic Strategic Plan, endorsed by the Faculty Senate in 2009, identified the need to create a gateway-to-discovery experience focused on the challenges of the global century for all incoming students at each level of postsecondary education. At the same time, the University recognizes the need to support and strengthen foundational academic programs. For all students, curricula will focus on producing workers and leaders who make a difference in the cultural and economic fabric of Montana and the world.

#### DISCOVERY AND CREATIVITY TO SERVE MONTANA AND THE WORLD

The University will transform discovery and creativity into knowledge, applications and experiences in ways that benefit the state, region, nation and world. Scholarship, research, and creative work are central to the lives of faculty, students, and staff, and to academic programming at the University of Montana. Therefore, UM supports research, scholarship, and creative work across the natural and physical sciences, social and behavioral sciences, arts, and humanities, and works to enhance opportunities for interdisciplinary connections. By fostering an entrepreneurial spirit in the community of research and technology, UM transforms discovery into application.

#### DYNAMIC LEARNING ENVIRONMENT

UM will enhance its character as a place where people are passionate about learning, discovery and growth. The University of Montana is consistently recognized as one of the most attractive and enticing campuses in the nation. Community and campus engagement literally means that the lives of the students, faculty, staff, alumni, and friends of the University are centered on the campus. Examples range from sold-out athletic events that feature perennial championship teams, to galleries, campus theaters, and arenas filled to capacity for performances featuring local and world famous artists. UM builds a vibrant and dynamic learning environment, where the natural surroundings are integrated into the curriculum.

#### PLANNING-ASSESSMENT CONTINUUM

The University will model transparency, systematic communication and sound decision-making to ensure that resources are marshaled to achieve UM's mission. The Planning-Assessment Continuum characterizes a cultural orientation of the University of Montana designed to facilitate desired outcomes, clarify the University's vision and mission, and communicate and demonstrate to internal and external stakeholders that the University is making the best use of its resources. Executive leadership provides communication of mission and vision, clear and consistent processes, overarching mission-driven goals, equitably applied parameters, and rules enforcement, while faculty, staff, and students provide ideas, process improvements, work, action, and other vital contributions to the direction of the University.

#### University Officers

June 2013

#### Montana Board of Regents of Higher Education

- Angela McLean (Chair) - Anaconda
- Paul Tuss (Vice Chair) - Havre
- Todd Buchanan - Billings
- Jeffrey Krauss - Bozeman
- Major Robinson - Billings
- Regent (Vacant) - TBA
- Zachary Rogala (Student Regent) - Darby
- Clayton Christian, Commissioner of Higher Education (ex-officio)

- Denise Juneau, Superintendent of Public Instruction (ex-officio)
- Steve Bullock, Governor (ex-officio)

#### Administrators

- Royce C. Engstrom, Ph.D. – President
- Perry J. Brown, Ph.D. – Provost and Vice President for Academic Affairs
- Peggy Kuhr, M.A. – Vice President for Integrated Communication
- Teresa Branch, Ph.D. – Vice President for Student Affairs
- Michael Reid, M.B.A. – Vice President for Administration and Finance
- Scott Wittenburg, Ph.D. – Vice President for Research and Creative Scholarship
- Shane Giese, M.B.A. – President/CEO, University of Montana Foundation
- William Johnston, M.P.A. – President/CEO, University of Montana Alumni Association
- Lucy France, J.D. – Legal Counsel
- Matt Riley, M.B.A. – Chief Information Officer
- Eric Gutiérrez, J.D. – Director, Equal Opportunity and Affirmative Action Office
- Kent Haslam, M.Ed. – Athletic Director

#### Academic Officers

- James Burchfield, Ph.D. - Dean, College of Forestry and Conservation
- Christopher Comer, Ph.D. - Dean, College of Arts and Sciences
- Denise Dowling, M.A. - Interim Dean, School of Journalism
- Roberta Evans, Ph.D. - Dean, Phyllis J. Washington College of Education and Human Sciences
- David Forbes, Ph.D. - Dean, College of Health Professions and Biomedical Sciences
- Larry Gianchetta, Ph.D. - Dean, School of Business Administration
- Barry Good, Ph.D. - Dean, Missoula College
- Joseph Hickman, M.A. - Interim Registrar
- Nancy Hinman, Ph.D. - Interim Associate Provost for Dynamic Learning
- Stephen Kalm, D.M.A. - Dean, College of Visual and Performing Arts
- Roger Maclean, Ed.D. - Dean, School of Extended and Lifelong Learning
- James McKusick, Ph.D. - Dean, Davidson Honors College
- Sharon O'Hare, M.A. - Assistant Vice President for Student Success
- J. B. Alexander Ross, Ph.D. - Dean, Graduate School
- Irma Russell, J.D. - Dean, School of Law
- Arlene Walker-Andrews, Ph.D. - Associate Provost for Global Century Education, and Special Assistant to the President for Accreditation
- Shali Zhang, Ph.D. - Dean, Mansfield Library

#### Helena College University of Montana

\*As part of a Montana Board of Regents renaming and re-branding effort for Montana's two-year institutions, effective beginning with the 2013-2014 Academic Year, The University of Montana - Helena College of Technology name became ***Helena College University of Montana***.

Helena College offers two-year programs in business, trades, technical and health occupations designed to meet the state's business and industry needs for technologically- skilled workers. All of the curricula are industry-approved and emphasize learning in a hands-on environment. In addition, the college offers an Associate of Science degree and Associate of Arts degree designed to transfer to four-year institutions. The college, founded in 1939, is fully accredited by the Northwest Commission on Colleges and Universities (NWCCU), approved by the Montana State Board of Nursing, certified and licensed by the Federal Aviation Administration, and certified by the National Institute for Automotive Service Excellence.

Helena College students take a full complement of courses in mathematics, communications, computer literacy, and career development. Located in Helena, Montana's beautiful capitol city, the College offers its programs in modern classrooms,

shops, and labs, both near the Capitol building and at the Helena airport. For more information, call 1-800-241-4882.

### **Montana Tech of The University of Montana**

Founded in Butte in 1889 as the Montana School of Mines, Montana Tech has a century-old reputation as one of the finest science and engineering colleges in America. Montana Tech is repeatedly recognized year after year among the top 10% of all colleges in America. While still focusing on its original programs in minerals and energy engineering, Montana Tech has expanded its offerings to include new science, engineering, computer science, technical communication, business, and innovative health care programs all designed to meet the needs of today's rapidly changing world.

Montana Tech provides outstanding educational programs to its 2,600 students in a truly personalized setting. Students are treated as individuals and enjoy their close relationships with faculty. Current Montana Tech students come from every Montana county, 38 states and 17 foreign countries. Montana Tech is a friendly campus where students get involved in a wide array of campus events and activities as well as abundant outdoor recreational opportunities. Student satisfaction surveys consistently give the College high marks for its quality of student life.

Upon graduation, Montana Tech graduates enjoy over a 94% overall placement rate with an overall salary of \$52,172. Many of the College's alumni have attained senior leadership positions in the minerals, energy, and natural resource industry and business. Over 19% of Montana Tech alumni give back to the campus each and every year.

Located in the heart of the mountains of Southwest Montana, the 98-acre main campus can be seen for miles. With over \$20 million in recently completed building and renovation projects, the campus blends its historical buildings with new, state-of-the-art laboratory and instructional facilities. The College's two-year campus, Montana Tech College of Technology, is located seven miles south of the main campus and provides occupational and technical program opportunities at the associate degree level. (As part of a Montana Board of Regents renaming and re-branding effort for Montana's two-year institutions, effective the 2013-2014 Academic Year, Montana Tech College of Technology will be known as *Highlands College of Montana Tech*)

Montana's geologic and hydrogeologic research arm, the Bureau of Mines and Geology, is a department of the College. Montana Tech's commitment to research has been rewarded with a 500 percent increase in funding over the past ten years. Inquiries to Montana Tech should be directed to 1-800-445-Tech or Tech's webpage at <http://www.mtech.edu/>.

### **The University of Montana Western**

The unique mission of the University of Montana Western emphasizes experiential learning combining theory and practice through projects and field experiences. Montana Western students learn by doing, collaborating directly with their professors and fellow students in a mentorship environment.

In order to better facilitate this type of learning, UMW adopted a course scheduling system, named Experience One (X1). Under X1, students take a single course at a time for 18 days for three hours per day. Montana Western is the first and only public four-year university in the country to fully adopt this system.

Montana Western embraces the privilege and obligations associated with its mission as a higher education institution within the beautiful landscape of southwest Montana. This mission infuses the University's curriculum: in its century-long tradition for excellence in professional programs in teacher education, business and technology; in its strong interdisciplinary arts and science programs; and in its two-year associate degree programs responding to regional needs.

Montana Western offers the Bachelor of Science degree in: Elementary Education, Secondary Education with options in traditional subject areas, Biology, Business Administration, Early Childhood Education, Environmental Interpretation, Environmental Science, Health & Human Performance, Mathematics, and Natural Horsemanship. In addition, Montana Western offers Bachelor of Arts (BA) and Bachelor of Applied Science (BAS) degrees. Bachelor of Arts options include English, Interdisciplinary Social Science, and Visual Arts. Bachelor of Applied Science students may use an Associate of Applied Science (AAS) degree as a base for the BAS degree with most of the credits from the two-year degree transferring

into the BAS at Montana Western. Montana Western also offers Associate of Arts and Associate of Science degrees for those who want to obtain their general education before transferring to another campus; Associate of Applied Science degrees for those needing entry-level job skills in Business, Early Childhood Education, Education Studies, Equine Studies, Natural Horsemanship, and Tourism & Recreation; and certificate programs in Early Childhood Technology, and Information Technology & Network Administration.

Individualized education has been a campus hallmark for over 100 years. Approximately 1,400 students enroll at Montana Western each fall. Class sizes are kept small (average class size is 18 students). The faculty is nationally recognized for its excellence, creativity, and genuine concern for maintaining the Montana Western tradition of high quality academic and personal experience.

In addition to fulfilling academic life, Montana Western offers National Association of Intercollegiate Athletics Frontier Conference sports in football, volleyball, men's and women's basketball, men's and women's National Intercollegiate Rodeo Association teams, and Equestrian team competition. A varied sports program is also available for students seeking intramural activities.

With close proximity to Yellowstone, Grand Teton, and Glacier national parks, Montana Western's geographic location makes an ideal setting for individuals who enjoy the rugged outdoors. With a friendly, small town atmosphere, Dillon offers many of the amenities of a much larger community. Ranching, mining and tourism are the chief industries of the area. Montana Western's picturesque 34-acre campus and friendly atmosphere enhance the community and area. For more information about the University of Montana Western, call (877) 683-7331.

## African-American Studies

- Requirements for a Minor
- Courses
- Faculty

**Tobin Miller Shearer, Program Director**

African-American Studies at the University of Montana connects African and African-American (including Latin America and the Caribbean) history, experiences, and perspectives with the 21st century. The goal of the African-American Studies curriculum is to develop basic knowledge of, and appreciation for, the diverse experiences of the African Diaspora, and their contributions to the nations into which they were incorporated. Through this study students will recognize that the African-American narrative connects to the core issues of nation formation, identity politics, social movements, and the liberal state. Those who take this minor will likewise be equipped to talk alongside, through, and in the midst of the racial fracture lines that mark this nation as a country where the color of one's skin is socially significant. In all these efforts, we promote scholarship that is driven first and foremost by an interest in creating knowledge and furthering our understanding of the African-American experience. The interdisciplinary curriculum of African-American Studies includes course offerings from the following academic disciplines: anthropology, economics, English, geography, history, music, political science, and sociology. Some topics of study include: African heritage and cultural continuity among African-Americans; African-American identity issues and cultural variation; the history of African-American protest and resistance, including the abolitionist, anti-lynching, and civil rights movements; the Harlem Renaissance; the social dynamics of integration and segregation; and the various circumstances of, and prospects for, African Americans in the 21st century.

### Requirements for a Minor

The African-American studies minor is an interdisciplinary program requiring twenty-four (24) credits drawn from a combination of disciplines—history, anthropology, English, sociology, geography, economics, and political science.

#### 1. African-American Core Courses

**9 credits required from the following:**

- AAS/HSTA 141H Introduction to African-American Studies
- AAS/HSTA 342H African-American History to 1865
- AAS/HSTA 343H African-American History Since 1865

**6 credits required from the following electives, 3 of which must be in an upper division course (i.e. 300 or 400 level):**

- AAS 191 Special Topics
- AAS Discovering Africa
- AAS 260 African Americans and Native Americans
- AAS/HSTA 262 Abolitionism: The First Civil Rights Movement
- AAS 291 Special Topics
- HSTA 327 The Rise and Fall of Atlantic World Slavery
- AAS 372 African-American Identity
- HSTA 347 African-American Religious Experience: Voodoo, Muslim, Church
- AAS 391 Special Topics
- AAS/HSTA 415 The Black Radical Tradition
- AAS/HSTA 417 Prayer and Civil Rights
- HSTA 420 America Divided, 1848-1865
- AAS 491 Special Topics

## 2. Electives

**9 credits required from the following courses. At least two of the courses must be from different disciplines:**

### - Anthropology

- ANTY 122S Race and Minorities
- ANTY 349 Social Change in Non-Western Societies
- ANTY 330X Peoples and cultures of the world

### - Economics

- ECNS 217X (ECON 350) Economic Development

### - English

- LIT 343 (ENLT 337) African-American Literature
- LIT 420 (ENLT 421) Critical Theory

### - Geography

- GPHY 243X (GEOG 207S) Africa

### - History

- HSTR 262 (HIST 283H) Islamic Civilization: The Classical Age
- HSTA 344 (HIST 362) African-American Struggle for Equality
- HSTA 361 (HIST 361H) The American South: From Slavery to Civil Rights
- HSTA 382 (HIST 363H) History of American Law
- HSTR 388 (HIST 388H) Africa to 1880
- HSTR 409 (HIST 409) History of Southern Africa
- HSTA 418 (HIST 470) Women and Slavery
- HSTA 419 (HIST 471) Southern Women in Black and White
- HSTA 420 America Divided, 1848-1865

### - Modern Languages

- FRCH 391 (FREN 395) Special Topics: African-American Literature

### - Music

- MUSI 130L (MUS 132L) History of Jazz

### - Political Science

- PSCI 326H (PSC 326H) Politics of Africa

### - Sociology

- SOCI 220S(SOC 220S) Race, Gender and Class

- SOCI 325 (SOC 325) Social Stratification
- SOCI 443 (SOC 322) Sociology of Poverty

### 3. Exit Interview

minors must meet with the AAS coordinator to discuss their experience and primary learning from the program prior to graduation

### 4. Honors Designation

Students may elect to achieve an honors designation by writing a twenty-five-page research paper in which they develop an argument based on their class learning about a fundamental problem in the study of the African-American experience as part of a three-credit independent study.

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### African-American Studies (AAS) - Course Descriptions

141H, 191, 208H, 260, 262, 291, 342H, 343H, 347, 372, 391, 396, 409, 415, 417, 420, 495, 496, 562

#### Faculty

##### Instructors

George Price, Ph.D., University of Montana, 2006

Tobin Miller Shearer, Ph.D., Northwestern University, 2008 (Director)

##### Emeritus Professor

Ulysses S. Doss, Ph.D., The Union Institute, 1974

## Department of Anthropology

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

#### Gilbert Quintero, Chair

Anthropology is the study of people, both ancient and contemporary, in their biological, archaeological, cultural, and linguistic context. Anthropology uses a holistic approach to integrate findings from the social sciences, natural sciences, and the humanities. The primary educational mission of the Department of Anthropology is teaching, research, and professional service to impart the critical importance of understanding the human condition and its relevancy to an increasingly diverse world. To accomplish this task, the Department of Anthropology provides a curriculum that will help students understand and appreciate the range of human cultures as well as the significance of biological evolution of the human condition. Through our undergraduate and graduate programs students not only achieve a broad cross-cultural education, but prepare to apply their anthropological knowledge in their chosen career paths. A minor, Bachelor of Arts, Master of Arts, and Doctor of Philosophy degrees are offered in anthropology, with options or specializations available at every level. For undergraduates, the B.A. can include an option in Archaeology, Cultural and Ethnic Diversity, Forensic Anthropology, Linguistics, Medical Anthropology - or a general degree crafted to the interests of the student. Parallel missions to promote the study of human diversity and experience are advanced by the Linguistics Program, which is also housed in the Department. Additional offerings include certificates in Forensic Science and Historic Preservation; these certificates are interdisciplinary by nature, but are administered within the Anthropology Department.

#### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See Index.

There are no prerequisites to the undergraduate major. The major requires 36 credits in Anthropology or Linguistics, 12 of which must be the core offerings. In addition to the core courses, students are required to have a course in quantitative methods. Students must complete the core courses and the quantitative course with a letter grade of "C-" (1.70) or better.

Of the remaining 24 credits, two upper-division courses (6 credits) must be selected from Subarea I with 3 credits from the theory section and 3 credits from the methods section. Six additional credits must be selected from two areas of Subareas II, III, or IV. Students must complete the undergraduate anthropology degree requirements by choosing 12 other elective credits in anthropology or approved cognate courses.

The 36 credits must include:

**Lower-Division Core Courses, 12 Credits**

- ANTY 210N (ANTH 210N) Introduction to Physical Anthropology, 3 cr.
- ANTY 220S (ANTH 220S) Culture & Society, 3 cr.
- ANTY 250S (ANTH 250S) Introduction to Archaeology, 3 cr.
- LING 270S Introduction to Linguistics, 3cr.

**Subarea I: Theory and Methods, 6 Credits**

**Anthropological Theory:**

- ANTY 312 (ANTH 410) Human Evolution
- ANTY 400 (ANTH 400) History of Anthropology
- ANTY 403E (ANTH 403E) Ethics and Anthropology
- ANTY 404 (ANTH 404) Anthropological Museology
- ANTY 415 (ANTH 415) Emergence of Modern Humans
- ANTY 430 (ANTH 430) Social Anthropology
- ANTY 450 (ANTH 450) Archaeological Theory
- ANTY 456 (ANTH 456) Historic Sites Archaeology
- ANTY 458 (ANTH 458) Archaeology of Hunter-Gatherers
- LING 472 Generative Syntax

**Anthropological Methods:**

- ANTY 402 (ANTH 448) Quantitative Ethnographic Methods
- ANTY 408 (ANTH 402) Advanced Anthropological Statistics
- ANTY 412 (ANTH 412) Osteology
- ANTY 413 (ANTH 413) Forensic and Mortuary Archaeology
- ANTY 416 (ANTH 416) Dental Anthropology
- ANTY 431 (ANTH 431) Ethnographic Field Methods
- ANTY 451 (ANTH 451) Cultural Resource Management
- ANTY 454 (ANTH 454) Lithic Technology
- ANTY 455 (ANTH 455) Artifact Analysis
- ANTY 466 (ANTH 466) Archaeological Survey
- ANTY 476 (ANTH 476) Methods for Teaching Native Languages
- ANTY 495 (ANTH 487) Field Experience
- LING 475 Linguistic Field Methods

**Subarea II, III, IV, 6 Credits from two areas**

**Subarea II: Human Adaptation and Diversity**

- ANTY 122S (ANTH 102S) Race and Minorities



- ANTY 133H (ANTH 103H) Food and Culture
- ANTY 211N (ANTH 211N) Anthropological Genetics
- ANTY 227 (ANTH 201) Human Sexuality
- ANTY 310 (ANTH 310) Human Variation
- ANTY 333 (ANTH 343) Culture and Population
- NASX 388 (ANTH 388X) Native American Health and Healing
- ANTY 417 (ANTH 417) Adaptation and Nutritional Anthropology
- ANTY 418 (ANTH 418) Ecology and Genetic Variation in Human Populations
- ANTY 426 (ANTH 444) Culture, Health, and Healing

### **Subarea III: World Societies and Cultures**

- ANTY 141H (ANTH 106H) The Silk Road
- ANTY 241H (ANTH 214) Central Asia: People and Environments
- ANTY 251H (ANTH 251H) Foundations of Civilization
- ANTY 254H (ANTH 252H) Archaeological Wonders of the World
- ANTY 323X (ANTH 323X) Native Peoples of Montana
- ANTY 330X (ANTH 330X) Peoples and Cultures of the World
- ANTY 347 (ANTH 346) Central Asia and Its Neighbors
- ANTY 351H (ANTH 351H) Archaeology of North America
- ANTY 352X (ANTH 352X) Archaeology of Montana
- ANTY 353 (ANTH 353) Paleoindian Archaeology
- ANTY 354H (ANTH 354H) Mesoamerican Prehistory
- ANTY 442 (ANTH 462) Cities and Landscapes of Central Asia
- ANTY 444 (ANTH 461) Artistic Traditions of Central and Southwest Asia
- ANTY 457 (ANTH 457) Archaeology of the Pacific Northwest
- ANTY 459 (ANTH 459) Archaeology of the Arctic and Subarctic
- ANTY 465X (ANTH 357X) Archaeology of the Southwest

### **Subarea IV: Concepts and Issues**

- ANTY 311 (ANTH 411) Primatology
- ANTY 314 (ANTH 314) Principles of Forensic Anthropology
- ANTY 326E (ANTH 385E) Indigenous Peoples and Global Development
- ANTY 336 (ANTH 326) Myth, Ritual and Religion
- ANTY 349 (ANTH 329) Social Change in Non-Western Societies
- ANTY 422 (ANTH 422) Mind, Culture and Society
- ANTY 423 (ANTH 328) Culture and Identity
- ANTY 427 (ANTH 327) Anthropology of Gender
- ANTY 435 (ANTH 445) Drugs, Culture and Society
- ANTY 440 (ANTH 340) Contemporary Issues of Southeast Asia
- LING 470 Linguistic Analysis
- LING 473 Language and Culture
- LING 474 Historical Linguistics
- LING 476 Child Language Acquisition
- LING 477 Bilingualism
- LING 479 Pragmatics
- LING 484 North American Indigenous Languages and Linguistics
- LING 489 Morphology
- NASX 306X (ANTH 341X) Contemporary Issues of Native Peoples

**Anthropology or cognate electives, 12 Credits**

**Upper-Division Writing Expectation**

The upper-division writing expectation must be met either by taking an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog (see index), or by taking one of the following courses: ANTY 314, 400, 408, 402, 403E, 450, 451 and 455 (ANTH 314, 400, 402, 448, 450, 451, and 455); LING 473 & 484.

**Archaeology Option**

For a degree in anthropology with an option in archaeology, the student must meet all the general requirements for the major and the following courses:

- Archaeology Core Courses (9 credits). One course from each of the following lists:
  - Area (3 credits): ANTY 351H (ANTH 351H), ANTY 352X (ANTH 352X), ANTY 353 (ANTH 353), ANTY 354H (ANTH 354H), ANTY 465X (ANTH 357), ANTY 451 (ANTH 451), ANTY 457 (ANTH 457), ANTY 459 (ANTH 459).
  - Theory (3 credits): ANTY 450 (ANTH 450), ANTY 456 (ANTH 456), ANTY 458 (ANTH 458).
  - Method (3 credits): Any archaeological field school, ANTY 454 (ANTH 454), ANTY 455 (ANTH 455), ANTY 466 (ANTH 466), ANTY 467 (ANTH 467).
- Complete 6 credits in one of the following allied disciplines: Biology, Geography, or Geology
- Complete 6 credits in one of the following allied disciplines: Computer Science, Environmental Studies, Forestry, History, Mathematical Sciences, or Native American Studies.

**Cultural and Ethnic Diversity Option**

For a degree in anthropology with an option in cultural and ethnic diversity the student must meet all the general requirements for the major and the following courses:

- ANTY 122S (ANTH 102S) Race and Minorities
- ANTY 310 (ANTH 310) Human Variation
- ANTY 423 (ANTH 328) Culture and Identity
- ANTY 330X (ANTH 330X) Peoples and Cultures of the World
- Complete 6 credits, with advisor approval, in one of the following disciplines: anthropology, history, or sociology
- Complete 6 upper-division credits, with advisor approval, in one of the following allied disciplines: African-American Studies, Asian Studies, Native American Studies or Women's Studies.

**Forensic Anthropology Option**

For a degree in anthropology with an option in forensic anthropology, the student must meet all the general requirements for the major and the following courses:

- CJUS 125N (ANTH 286N) Fundamentals of Forensic Science
- ANTY 310 (ANTH 310) Human Variation
- ANTY 314 (ANTH 314) Principles of Forensic Anthropology
- ANTY 412 (ANTH 412) Osteology or ANTY 413 (ANTH 413) Forensic and Mortuary Archaeology
- SOCI 211S (SOC 230S) Introduction to Criminology or SOCI 221 (SOC 235) Criminal Justice System
- Complete 12 credits in additional courses in subjects relevant to the forensic sciences chosen in consultation with the advisor, such as (but not limited to) archaeology, physical anthropology, biology, chemistry, criminology, drawing, geology, pharmacy, photography, public speaking, or psychology.

**Linguistic Option**

For a degree in anthropology with an option in linguistics, the student must meet all the general requirements for the major and complete an additional 12 credits from the following courses:

- LING 470 Linguistic Analysis
- LING 473 Language and Culture
- Any two classes from the following:

- LING 375X
- LING 472
- LING 474
- LING 475
- LING 476
- LING 477
- LING 478
- LING 484
- LING 489

### Medical Anthropology Option

For a degree in anthropology with an option in medical anthropology, the student must meet all the general requirements for the major and complete an additional 12 credits. The student must take:

- ANTY 426 (ANTH 444) Culture, Health and Healing
- And any three classes from the following:
  - ANTY 333 (ANTH 343) Culture and Population
  - ANTY 336 (ANTH 326) Myth, Ritual and Religion
  - NASX 388 (ANTH 388X) Native American Health and Healing
  - ANTY 418 (ANTH 418) Ecology and Genetic Variation in Human Populations
  - ANTY 422 (ANTH 422) Mind, Culture and Society
  - ANTY 435 (ANTH 445) Drugs, Society and Culture

### Suggested Course of Study

Anthropology is an interconnected discipline and majors are urged to acquire a broad background especially in the natural and social sciences and the humanities. Recommended areas of study are biology, economics, English, geography, geology, history, communication studies, linguistics, Native American studies, philosophy, political science, psychology, religious studies, and sociology.

### Suggested course of study for students selecting the general curriculum in Anthropology without an option:

<b>First Year</b>	<b>A</b>	<b>S</b>
ANTY 250S (ANTH 250S) Introduction to Archaeology	-	3
ANTY elective	3	-
WRIT 101 (ENEX 101) College Writing I	3	-
M 115 (MATH 117) Probability and Linear Mathematics	3	-
General Education	6	9
Elective	-	3
Total	15	15
<b>Second Year</b>		
ANTY 210N (ANTH 210N) Introduction to Physical Anthropology	3	-
ANTY 220S (ANTH 220S) Culture & Society	3	-
LING 270S Introduction to Linguistics	-	3
ANTY electives	3	3
General Education	6	9
Total	15	15
<b>Third Year</b>		
ANTY Subarea I, theory, course	3	-
Upper-division ANTY courses, subareas III, IV, or V	6	-
Statistics course	-	3
Upper-division electives	-	12
Electives	6	-
Total	15	15
<b>Fourth Year</b>		
ANTY Subarea II, methods, course	3	-
Upper-division electives	12	-
Electives	-	15
Total	15	15

**Suggested course of study for students completing the archaeology option:**

	<b>First Year</b>	<b>A</b>	<b>S</b>
ANTY 250S (ANTH 250S) Introduction to Archaeology		-	3
WRIT 101 (ENEX 101) College Writing I		3	-
M 115 (MATH 117) Probability and Linear Mathematics		3	-
ANTY elective		3	-
General Education		6	9
Elective		-	3
<b>Total</b>		<b>15</b>	<b>15</b>
	<b>Second Year</b>		
ANTY 210N (ANTH 210N) Introduction to Physical Anthropology		3	-
ANTY 220S (ANTH 220S) Culture and Society		3	-
LING 270S Introduction to Linguistics		-	3
ANTY electives		3	6
General Education		6	6
<b>Total</b>		<b>15</b>	<b>15</b>
	<b>Third Year</b>		
ANTY 450 (ANTH 450) Archaeological Theory		3	-
ANTY 455 (ANTH 455) Artifact Analysis (or ANTY 466 (ANTH 466) in the fall)		-	3
Upper-Division ANTY courses		3	3
ANTH elective		3	-
Statistics course		-	3
Allied discipline courses (biology computer science, environmental studies, forestry, geography, geology, history, mathematics)		6	6
<b>Total</b>		<b>15</b>	<b>15</b>
	<b>Fourth Year</b>		
ANTY 351H or 352X, 354H, 353, 465X, 451, 457, 459 (ANTH 351H or 352X, 354, 353, 357, 451, 457, 459)		3	-
Electives		12	15
<b>Total</b>		<b>15</b>	<b>15</b>

**Suggested course of study for students completing the forensic anthropology option:**

	<b>First Year</b>	<b>A</b>	<b>S</b>
ANTY 210N (ANTH 210N) Introduction to Physical Anthropology		3	-
ANTY 213N Introduction to Physical Anthropology Lab		1	-
ANTY 220S (ANTH 220S) Culture & Society		3	-
ANTY 250S (ANTH 250S) Introduction to Archaeology		-	3
LING 270 Introduction to Linguistics		-	3
WRIT 101 (ENEX 101) College Writing I		3	-
M 115 (MATH 117) Probability and Linear Mathematics		-	3
SOCI 101S (SOC 110S) Principles of Sociology		-	3
General Education		6	3
<b>Total</b>		<b>16</b>	<b>15</b>
	<b>Second Year</b>		
CJUS 125N (ANTH 286N) Fundamentals of Forensic Science		3	-
SOCI 221 (SOC 245) Criminal Justice System		-	3
ANTY 211N (ANTH 211N) Human Genetics (recommended, otherwise an elective)		-	3
Forensic Science related course(s)		3-5	3-5
General Education		3	3
General Education writing class one semester and an elective the other		3	3
Elective		1-3	
<b>Total</b>		<b>15-</b>	<b>15-</b>
		<b>17</b>	<b>17</b>
	<b>Third Year</b>		
ANTY 401 (ANTH 401) Anthropological Data Analysis (or another statistics course)		3	-
ANTY 314 (ANTH 314) Principles of Forensic Anthropology		3	-
ANTY 310 (ANTH 310) Human Variation		-	3
Upper-division ANTY courses		3	3
Writing Proficiency Assessment		-	-
Forensic Science related course		3	3
Upper division elective		-	3
Elective		-	3
<b>Total</b>		<b>15</b>	<b>15</b>
	<b>Fourth Year</b>		
ANTY 412 (ANTH 412) Osteology in the Autumn or ANTY 413 (ANTH 413) Forensic and Mortuary Archaeology in the Spring and an upper division ANTY elective the other semester		3	3
ANTH theory course (Subarea I Anthropological Theory) either semester and an upper division ANTY elective the other semester		3	3
CJUS 488 (ANTH 488) Forensic Science Beyond the Crime Lab (recommended otherwise an upper division elective) either semester and an elective the other semester		3	3
Upper division elective		3	3

Electives	3	3
Total	15	15

**Suggested course of study for students completing the linguistics option:**

<b>First Year</b>		<b>A</b>	<b>S</b>
ANTY 250S (ANTH 250S) Introduction to Archaeology	-	3	
WRIT 101 (ENEX 101) College Writing I	3	-	
M 115 (MATH 117) Probability and Linear Mathematics	3	-	
ANTY elective	3	-	
General Education	6	9	
Elective	-	3	
Total	15	15	
<b>Second Year</b>			
ANTY 210N (ANTH 210N) Introduction to Physical Anthropology	3	-	
ANTY 220S (ANTH 220S) Culture and Society	3	-	
LING 270S Introduction to Linguistics	-	3	
ANTY electives	3	3	
General Education	6	9	
Total	15	15	
<b>Third Year</b>			
LING 470 Linguistic Analysis	3	-	
Statistics course	-	3	
Upper-division ANTY courses in subarea II or III	3	-	
ANTY Subarea II, methods course, LING 475 recommended	-	3	
ANTY electives	6	9	
Elective	3	-	
Total	15	15	
<b>Fourth Year</b>			
LING 471 Phonetics and Phonology	3	-	
LING 472 Generative Syntax	-	3	
Two of: LING 473, 474, 475 or 484	3	3	
Electives	6	6	
Total	15	15	

**Suggested course of study for students completing the medical anthropology option:**

<b>First Year</b>		<b>A</b>	<b>S</b>
ANTY 250S (ANTH 250S) Introduction to Archaeology	-	3	
ANTY elective	3	-	
WRIT 101 (ENEX 101) College Writing I	3	-	
M 115 (MATH 117) Probability and Linear Mathematics	3	-	
General Education	6	9	
Elective	-	3	
Total	15	15	
<b>Second Year</b>			
ANTY 210N (ANTH 210N) Introduction to Physical Anthropology	3	-	
ANTY 220S (ANTH 220S) Culture and Society	3	-	
LING 270S Introduction to Linguistics	-	3	
ANTY electives	3	3	
General Education	6	9	
Total	15	15	
<b>Third Year</b>			
ANTY Subarea I, theory, course, ANTY 400 or 430 recommended	3	-	
Statistics course	-	3	
Upper-division electives	3	9	
Electives	6	-	
One of ANTY 333, 418, 422 (ANTH 343, 418 or 422)	3	-	
One of NASX 388X (ANTH 388X) or ANTY 435 (ANTH 445)	-	3	
Total	15	15	
<b>Fourth Year</b>			
ANTY 426 (ANTH 444)	3	-	
Upper-division electives	3	-	
ANTY Subarea II, methods, course, ANTY 402, 408 or 431 (ANTH 448, 402, 431) recommended	3	-	
Electives	3	12	
One of ANTY 333, 418, 422 (ANTH 343, 418 or 422) (autumn) OR one of NASX 388X (ANTH 388X) or ANTY 435 (ANTH 445) (spring)	3	3	
Total	15	15	

**Certificate in Forensic Studies**

The certificate in forensic studies is designed so that students may complete the requirements either as resident students at UM-Missoula or completely online through UM-Missoula's online facility.

To earn a certificate in forensic studies the student must complete a minimum of 18 credits, including 6 credits in core forensic science courses.

6 credits in science:

Appropriate courses include any that have been designated as University of Montana-Missoula General Education Perspective 6 (Natural Science) courses or selected courses from Anthropology (forensics, physical anthropology, archaeology method and theory); Biology, Chemistry; Computer Science; Geology; Mathematical Sciences (statistics); Physics; Psychology; Sociology 110S, criminology.

**3 credits in written, oral, or pictorial communication:**

Appropriate courses include selected courses in Art (drawing, photography); Curriculum & Instruction (communication, multimedia); Communications (any numbered 100 or higher); Communication Studies; CAPP 171 (CS 171) CS 181; WRIT 101 (ENEX 101); WRIT 222 (FOR 220); Journalism; and Media Arts.

**3 credits in ethics:**

An appropriate course is one that has been designated as a University of Montana-Missoula General Education Perspective 5 (Ethical and Human Values) course.

**Certificate in Historic Preservation**

Historic Preservation is the interdisciplinary field that seeks to identify, document, preserve and protect significant structures, sites and landscapes. To earn a certificate in historic preservation the student must complete a minimum of 21 credits to include:

**15 credits in Core Courses**

**3 Credits in History Electives**

**3 Credits in Internship or Independent Study** (must be with an approved, appropriate preservation based agency or focused on an approved preservation based topic)

**Requirements for a Minor**

To earn a minor in anthropology the student must complete the core courses. Afterward, the student must complete one upper-division course in Subarea I and one upper-division course from Subareas II, III, or IV.

**Lower-Division Core Courses, 12 Credits**

**Subarea I, 3 Upper-Division Credits**

**Subareas II, III, or IV, 3 Upper-Division Credits**

**Please see the Historic Preservation section for all HPRV courses.**

**Please see the Linguistics section for all LING courses.**

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Anthropology (ANTY) - Course Descriptions**

101H, 102H, 103H, 122S, 124, 133H, 141H, 191, 192, 193, 198, 210N, 211N, 213N, 220S, 224, 227, 231X, 241H, 250S,

251H, 254H, 291, 310, 311, 312, 314, 318, 323X, 326E, 330X, 333, 336, 345, 346, 347, 349, 351H, 352X, 353, 354H, 391, 398, 400, 401, 402, 403E, 404, 408, 409, 412, 413, 415, 416, 417, 418, 422, 423, 426, 427, 430, 431, 432, 435, 440, 442, 444, 450, 451, 452, 454, 455, 456, 457, 458, 459, 465X, 466, 467, 476, 491, 492, 494, 495, 500, 501, 502, 503, 510, 512, 513, 514, 515, 520, 521, 522, 550, 551, 552, 553, 593, 595, 596, 597, 598, 599, 600, 601, 602, 694, 697, 699

### **Fundamentals of Forensic Science (CJUS) - Course Descriptions**

125N, 488

### **Historic Preservation (HPRV) - Course Descriptions**

400

#### **Faculty**

##### **Professors**

Gregory R. Campbell, Ph.D., University of Oklahoma, 1987

John E. Douglas, Ph.D., University of Arizona, 1990

S. Neyooxet Greymorning, Ph.D., University of Oklahoma, 1992

Kimber Haddix McKay, Ph.D., University of California, Davis, 1998 (Vice Chair)

Anna M. Prentiss, Ph.D., Simon Fraser University, 1993

Randall R. Skelton, Ph.D., University of California, Davis, 1983

Gilbert Quintero, Ph.D., University of Arizona, 1997 (Chair)

G.G. Weix, Ph.D., Cornell University, 1990

##### **Associate Professors**

Irene Appelbaum, Ph.D., University of Chicago, 1995 (Director, Linguistics Program)

Leora Bar-el, Ph.D., University of British Columbia, 2005

Kelly J. Dixon, Ph.D., University of Nevada-Reno, 2002

Ardeshir Kia, Ph.D., University of Wisconsin-Madison, 1988 (Associate Director, Central & SW Asia Program)

Ashley H. McKeown, Ph.D., University of Tennessee, Knoxville, 2000

Mizuki Miyashita, Ph.D., University of Arizona, 2002

Douglas MacDonald, Ph.D., Washington State University, Pullman, 1998

Tully J. Thibeau, Ph.D., University of Arizona, 1999

##### **Adjunct Faculty**

Linda J. Brown, M.A., University of Arizona, 1990

Jeanie Castillo, M.A., California State University, Fresno, 1998

Udo Fluck, Ph.D., University of Montana, 2003

##### **Lecturers**

D. Garry Kerr, M.A., University of Montana, 1994

Richard Sattler, Ph.D., University of Oklahoma, 1987

**Emeritus Professors**

Thomas A. Foor, Ph.D., University of California, Santa Barbara, 1982

Anthony Mattina, Ph.D., University of Hawaii, 1973

Charlene G. Smith, Ph.D., University of Utah, 1970

Katherine M. Weist, Ph.D., University of California, Berkeley, 1970

## Applied Science

### Lynn Stocking, Advisor

The Bachelor of Applied Science program is available to students completing an Associate of Applied Science degree program at a regionally accredited institution. The Missoula College section of the University of Montana-Missoula catalog identifies Associate of Applied Science degree programs offered at The University of Montana.

Students considering a B.A.S. degree program must have completed an accredited A.A.S. degree program with a 2.50 grade point average. Because approval of a B.A.S. degree plan is required, students considering such a degree must meet with a designated B.A.S. advisor to identify a degree plan, to create a Degree Program Committee, and to identify the procedure required for degree plan approval.

Students are urged to begin the application process one semester prior to the completion of an AAS degree if the degree is in process.

Bachelor of Applied degree students must meet all the University of Montana requirements for graduation. Fifty credits from an accredited A.A.S. program will count toward the total credits required for graduation. Student earning this degree will receive a diploma identifying the degree of Bachelor of Applied Science without designation of an area of concentration.

## Asian Studies

The University of Montana-Missoula offers students multiple opportunities to study Asian lands, peoples, cultures and languages. Students may choose to pursue one or more of the following:

- A major or minor in Central and Southwest Asia Studies (see Central and Southwest Asian Studies Center)
- A major or minor in Japanese (see Modern and Classical Languages and Literatures)
- A major in Liberal Studies with an Option in Asian Studies (see Liberal Studies Program)
- A minor in Chinese (see Modern and Classical Languages and Literatures)
- A minor in South and Southeast Asia (See Liberal Studies Program)

## Biochemistry

### Bruce E. Bowler, Program Director

The Biochemistry Program is a joint program between the Department of Chemistry and Biochemistry and the Division of Biological Sciences. Biochemistry is an interdisciplinary science that integrates chemistry and biology to understand the molecular basis of life. The program offers a B.S. in Biochemistry and M.S. and Ph.D. degrees in Biochemistry & Biophysics.

Undergraduate majors receive a solid foundation in both chemistry and biology. Biochemistry courses are usually taken in the junior year allowing majors to become involved in research with faculty and to take electives in their senior year. The major also introduces students to computer science and bioinformatics, essential tools in modern biochemistry. The B.S. in Biochemistry prepares students for advanced degrees in biochemistry or biophysics, for medical, dental or veterinary schools and for careers in the pharmaceutical and biotechnology industries. A Health Professions option is also offered within the B.S. in Biochemistry for students whose career goals are in fields related to biochemistry. This option allows more flexibility in



upper division electives, permitting students to tailor the degree to their needs.

The graduate degrees in Biochemistry & Biophysics prepare students to be independent researchers in academic laboratories or in the biotechnology and pharmaceutical industries. Through coursework and independent research, graduate students in this program will become adept at the physical and structural methods necessary to probe important problems in the life sciences at the molecular level. In collaboration with the Center for Biomolecular Structure & Dynamics, the Biochemistry Program provides state-of-the-art facilities for research in biochemistry, biophysics and structural biology.

Prospective students desiring further information on these degrees should contact the Program Director by visiting the Biochemistry Program web site: <http://www.cas.umt.edu/chemistry/biochemistryProgram/>.

**High School Preparation:** In addition to the general University admission requirements, it is strongly recommended that a student take four years of mathematics, four years of science, and a foreign language.

#### Bachelor of Science in Biochemistry

- CHMY 141N-143N (CHEM 161N-162N); College Chemistry I & II + Lab - 10 cr.
- CHMY 221-224 (CHEM 221-224); Organic Chemistry I & II + Lab - 10 cr.
- CHMY 225 (CHEM 264); Organic Majors Lab may be substituted for CHMY 224 (CHEM 224)
- CHMY 311-421 (CHEM 341-342); Quantitative Analysis and Instrumental Methods - 8 cr.
- CHMY 360 (CHEM 370); Applied Physical Chemistry - 3 cr.
- CHMY 373 (CHEM 371); Phys Chem-Kntcs & Thrmdynmcs may be substituted for CHMY 360 (CHEM 370). Students planning to attend graduate school in biochemistry or biophysics are strongly advised to take the CHMY 373-371 sequence.
- CHMY 401 (CHEM 452); Advanced Inorganic Chemistry - 3 cr.
- BCH 110-111 (BIOC 110-111); Biochemistry of Life + Lab - 4 cr.
- BCH 294 (BIOC 210); Introductory Biochemistry Seminar - 1 cr.
- BCH 480-482 (BIOC 481-482); Advanced Biochemistry I & II - 6 cr.
- BCH 486 (BIOC 486); Biochemistry Research Laboratory - 3 cr.
- BIOB 260 (BIOL 221); Cellular and Molecular Biology - 4 cr.
- BIOB 272 (BIOL 223); Genetics and Evolution - 4 cr.
- BIOB 425 (BIOL 464); Advanced Cellular and Molecular Biology - 3 cr.
- M 171-172 (MATH 152-153); Calculus I & II - 8 cr.
- PHSX 215N/216N and 217N/218N (PHYS 211N/213N and 212N/214N); Fundamentals of Physics with Calculus I & II + Lab - 10 cr.
- CSCI 250 (CS 177); Computer Modeling for Science Majors - 3 cr.
- CSCI 451 (CS 458); Computational Biology - 3 cr.

13 credits of electives from BCH 490<sup>1</sup> (BIOC 497); BIOB 301, 375, 410, 411, 440, 486, 490<sup>1</sup> (BIOL 301, MICB 410, 411, BIOL 440, 490); BIOH 345, 360, 365, 370, 405, 462 (BIOL 313, 345, 312, 347, 460, MICB 309); BIOM 360, 361, 400, 410, 411, 427, 428, 435 (MICB 300, 301, 302, 404, 405, 420; BIOL 400, 401); PHAR 347, 421, 422 (BMED 347, 421, 422); CHMY 371, 397<sup>1</sup>, 402, 403, 442, 465, 466, 485, 490,<sup>1</sup> 494,<sup>1</sup> 498<sup>1</sup> (CHEM 372, 380, 453, 455, 442, 465, 466, 485, 489, 498).

<sup>1</sup>No more than 3 credits combined of BCH 490 (BIOC 497), CHMY 490, 498 (CHEM 489, 498) or BCH 490 (BIOC 497) and no more than 3 credits of CHMY 397/494 may be counted toward the 13 credit elective requirement.

For Group I of the General Education requirements (English Writing Skills), all students must complete WRIT 101 (ENEX 101), a lower division writing course, an upper division writing course, and need to obtain a score of 3 or better on the WPA exam. The upper division requirement will be satisfied by BCH 482 (BIOC 482) (1/3 of requirement) and BCH 486 (BIOC 486) (2/3 of requirement).

Group II of the General Education requirement (Mathematics) is fulfilled by M 171 (MATH 152).

The Foreign Language/Symbolic Systems requirement (Group III of the General Education Requirement) is fulfilled by M 171

(MATH 152).

All students must complete 27 credit hours from groups IV to XI of the General Education requirement to graduate (CHMY 141N-143N (CHEM 161N- 162N) counts as the 6 credit group XI requirement). One of these courses should be an approved lower division writing course.

**Credits to Graduate:**

Required courses: 83

Elective courses: 13

General education:<sup>1</sup> 21

WRIT 101 (ENEX 101): 3

**Total: 120**

<sup>1</sup>Groups IV to X account for 21 credit hours.

**Bachelor of Science in Biochemistry: Health Professions Option**

- CHMY 141N-143N; (CHEM 161N-162N) College Chemistry I & II + Lab - 10 cr.
- CHMY 221-224 (CHEM 221-224); Organic Chemistry I & II + Lab - 10 cr.
- CHMY 225 (CHEM 264); Organic Majors Lab may be substituted for CHMY 224 (CHEM 224)
- CHMY 302E (CHEM 334); Chem. Lit and Science Writing - 3 cr.
- CHMY 311-421; (CHEM 341-342) Quantitative Analysis and Instrumental Methods - 8 cr.
- CHMY 360 (CHEM 370); Applied Physical Chemistry - 3 cr.
- CHMY 373 (CHEM 371); Phys Chem-Kntcs & Thrmdynmcs may be substituted for CHMY 360 (CHEM 370)
- CHMY 401 (CHEM 452); Advanced Inorganic Chemistry - 3 cr.
- BCH 110-111 (BIOC 110-111); Biochemistry of Life + Lab - 4 cr.
- BCH 294 (BIOC 210); Introductory Biochemistry Seminar - 1 cr.
- BCH 480-482 (BIOC 481-482); Advanced Biochemistry I & II - 6 cr.
- BIOB 260 (BIOL 221); Cellular and Molecular Biology - 4 cr.
- BIOB 272 (BIOL 223); Genetics and Evolution - 4 cr.
- BIOM 360/361 (MICB 300/301); General Microbiology + Lab - 5 cr.
- M 162 (MATH 150); Applied Calculus - 4 cr.
- M 274 (MATH 158); Intro to Differential Equations - 3 cr.
- PHSX 205N/206N-207N/208N (PHYS 111N/113N-112N/114N); College Physics I&II + Lab - 10 cr.
- 23 credits of electives from BCH 486, 490<sup>1</sup> (BIOC 486, 497); BIOB 301, 375, 410, 411, 425, 440, 486, 490<sup>1</sup> (BIOL 301, MICB 410, 411, BIOL 464, 440, 490); BIOH 345, 360, 365, 370, 405, 462 (BIOL 312, 313, 345, 347, 460, MICB 309); BIOM 400, 410, 411, 427, 428, 435 (MICB 302, 404, 405, BIOL 400, 401, MICB 420); PHAR 347, 421, 422 (BMED 347, 421, 422); CHMY 371, 397, 402, 403, 442, 465, 466, 485, 490,<sup>1</sup> 494,<sup>1</sup> 498<sup>1</sup> (CHEM 372, 380, 453, 455, 442, 465, 466, 485, 489, 498).

- <sup>1</sup>No more that 3 credits combined of BIOB 490 (BIOL 497), CHMY 490, 498 (CHEM 489, 498) or BCH 490 (BIOC 497) and no more than 3 credits of CHMY 397/494 may be counted toward the 23 credit elective requirement.

For Group I of the General Education requirements (English Writing Skills), all students must complete WRIT 101 (ENEX 101), a lower division writing course, an upper division writing course, and need to obtain a score of 3 or better on the WPA exam. CHMY 302E (CHEM 334) is the formal requirement to satisfy the upper division requirement in this option. It can also be satisfied by taking the following combinations of required and elective courses: BCH 482 (BIOC 482) (1/3 of requirement), and BCH 486 (BIOC 486) (2/3 of requirement); BCH 482 (BIOC 482) or BIOB 410 ( MICB 410) (1/3 of requirement) and BIOM 410 or BIOB 411 (MICB 404 or MICB 411) (2/3 of requirement).

Group II of the General Education requirement (Mathematics) is fulfilled by M 162 (MATH 150).

The Foreign Language/Symbolic Systems requirement (Group III of the General Education Requirement) is fulfilled by M 162 (MATH 150).

All students must complete 27 credit hours from groups IV to XI of the General Education requirement to graduate (CHMY 141N-143N (CHEM 161N-162N) counts as the 6 credit group XI requirement; If CHMY 302E (CHEM 334) is taken to satisfy the upper division writing requirement it also satisfies the group VIII requirement). One of these courses should be an approved lower division writing course.

**Credits to Graduate:**

Required courses: 78

Elective courses: 21

General education:<sup>1</sup> 18

WRIT 101 (ENEX 101): 3

**Total: 120**

<sup>1</sup>Groups IV to VII, IX and X account for 18 credit hours, assuming CHMY 302E is used for group VIII.

**Suggested Course of Study for B.S. Degree in Biochemistry**

<b>First Year</b>	<b>A</b>	<b>S</b>
CHMY 141N (CHEM 161N) College Chemistry I	5	-
CHMY 143N (CHEM 162N) College Chemistry II	-	5
M 171 (MATH 152) Calculus I	4	-
M 172 (MATH 153) Calculus II	-	4
WRIT 101 (ENEX 101) College Writing I	3	-
BCH 110 (BIOC 110) Biochemistry of Life Lecture	-	3
BCH 111 (BIOC 111) Biochemistry of Life Laboratory	-	1
General Education	-	3
<b>Total</b>	<b>15</b>	<b>16</b>
<b>Second Year</b>		
CHMY 221-222 (CHEM 221-222) Organic Chemistry I and Lab	5	-
CHMY 223-224 (CHEM 223-224) Organic Chemistry II and Lab	-	5
PHSX 215N/216N (PHYS 211N/213N) Fundamentals of Physics I with Calculus and Lab	5	-
PHSX 217N/218N (PHYS 212N/214N) Fundamentals of Physics II with Calculus and Lab	-	5
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4	-
BIOB 272 (BIOL 223) Genetics and Evolution	-	4
BCH 294 (BIOC 210) Introductory Biochemistry Seminar	-	1
<b>Total</b>	<b>14</b>	<b>15</b>
<b>Third Year</b>		
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis	4	-
CHMY 360 (CHEM 370) Applied Physical Chemistry (or CHMY 373 (CHEM 371) offered autumn). Students planning to attend graduate school in biochemistry or biophysics are strongly advised to take the CHMY 373-371 sequence.)	-	3
CHMY 421 (CHEM 342) Advanced Instrument Analysis	-	4

BCH 480 (BIOC 481) Advanced Biochemistry I	3 -
BCH 482 (BIOC 482) Advanced Biochemistry II	- 3
BCH 486 (BIOC 486) Biochemistry Research Laboratory	- 3
CSCI 250 (CS 177) Computer Modeling for Science Majors	3 -
General Education	6 -
Total	16 13

**Fourth Year**

CHMY 401 (CHEM 452) Advanced Inorganic Chemistry	3 -
CSCI 451 (CS 458) Computational Biology	3 -
BIOB 425 (BIOL 464) Advanced Cellular & Molecular Biology	- 3
Advanced Electives *	6 7
General Education	3 6
Total	15 16

\*Advanced Biochemistry Electives:

BCH 490 (BIOC 497), BIOB 301  
(BIOL 301), BIOB 375, BIOB 410  
(MICB 410), BIOB 411 (MICB 411),  
BIOB 440 (BIOL 440), BIOB 486,  
BIOB 490 (BIOL 490), BIOH 345  
(BIOL 345), BIOH 360 (BIOL 347),  
BIOH 365 (BIOL 312), BIOH 370  
(BIOL 313), BIOH 405 (MICB 309),  
BIOH 462 (BIOL 460), BIOM 360  
(MICB 300), BIOM 361 (MICB 301),  
BIOM 400 (MICB 302), BIOM 410  
(MICB 404), BIOM 411 (MICB  
405), BIOM 427 (BIOL 400), BIOM  
428 (BIOL 401), BIOM 435 (MICB  
420), PHAR 347 (BMED 347), PHAR  
421 (BMED 421), PHAR 422 (BMED  
422), CHMY 371 (CHEM 372), CHMY  
397 (CHEM 380), CHMY 402 (CHEM  
455), CHMY 403 (CHEM 453), CHMY  
442 (CHEM 442), CHMY 465 (CHEM  
465), CHMY 466 (CHEM 466), CHMY  
485 (CHEM 485), CHMY 490 (CHEM  
489), CHMY 494, CHMY 498 (CHEM  
498)

**Suggested Course of Study for B.S. Degree in Biochemistry: Health Professions Option**

<b>First Year</b>	<b>A S</b>
CHMY 141N (CHEM 161N) College Chemistry I	5 -
CHMY 143N (CHEM 162N) College Chemistry II	- 5
M 162 (MATH 150) Applied Calculus	4 -
M 274 (MATH 158) Intro to Differential Equations	- 3
WRIT 101 (ENEX 101) College Writing I	3 -
BCH 110 (BIOC 110) Biochemistry of Life Lecture	- 3
BCH 111 (BIOC 111) Biochemistry of Life Laboratory	- 1
General Education	3 3
Total	15 15

**Second Year**

CHMY 221-222 (CHEM 221-222) Organic Chemistry I and Lab	5 -
CHMY 223-224 (CHEM 223-224) Organic Chemistry II and Lab	- 5
PHSX 205N/206N (PHYS 111N/113N) College Physics I and Lab	5 -
PHSX 207M/208N (PHYS 112N/114N) College Physics II and Lab	- 5
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4 -

BIOB 272 (BIOL 223) Genetics and Evolution	-	4
BCH 294 (BIOC 210) Introductory Biochemistry Seminar	-	1
Total		14 15

**Third Year**

CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis	4	-
CHMY 302E (CHEM 334) Chemistry Lit and Science Writing	3	-
CHMY 360 (CHEM 370) Applied Physical Chemistry (or CHMY 373 (CHEM 371) offered autumn)	-	3
CHMY 421 (CHEM 342) Advanced Instrument Analysis	-	4
BIOM 360/361 (MICB 300/301) General Microbiology + Lab	-	5
Advanced Electives*	3	3
General Education	6	-
Total	16	15

**Fourth Year**

CHMY 401 (CHEM 452) Advanced Inorganic Chemistry	3	-
BCH 480 (BIOC 481) Advanced Biochemistry I	3	-
BCH 482 (BIOC 482) Advanced Biochemistry II	-	3
Advanced Electives *	3	9
General Education	6	3
Total	15	15

\*Advanced Biochemistry Electives:

BCH 486 (BIOC 486), BCH 490 (BIOC 497), BIOB 301 (BIOL 301), BIOB 375, BIOB 410 (MICB 410), BIOB 411 (MICB 411), BIOB 425 (BIOL 464), BIOB 440 (BIOL 440), BIOB 486, BIOB 490 (BIOL 490), BIOH 345 (BIOL 345), BIOH 360 (BIOL 347), BIOH 365 (BIOL 312), BIOH 370 (BIOL 313), BIOH 405 (MICB 309), BIOH 462 (BIOL 460), BIOM 400 (MICB 302), BIOM 410 (MICB 404), BIOM 411 (MICB 405), BIOM 427 (BIOL 400), BIOM 428 (BIOL 401), BIOM 435 (MICB 420), PHAR 347 (BMED 347), PHAR 421 (BMED 421), PHAR 422 (BMED 422), CHMY 371 (CHEM 372), CHMY 397 (CHEM 380), CHMY 402 (CHEM 455), CHMY 403 (CHEM 453), CHMY 442 (CHEM 442), CHMY 465 (CHEM 465), CHMY 466 (CHEM 466), CHMY 485 (CHEM 485), CHMY 490 (CHEM 489), CHMY 494, CHMY 498 (CHEM 498).

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Biochemistry (BCH) - Course Descriptions**

110, 111, 294, 380, 480, 482, 486, 490, 491, 499, 547, 561, 562, 570, 581, 582, 584, 594, 595, 597, 599, 600, 685, 694, 699

**Faculty****Professors:**

Bruce E. Bowler (Director), Chemistry & Biochemistry, Ph.D., Massachusetts Institute of Technology, 1986

J. Stephen Lodmell, Division of Biological Sciences, Ph.D., Brown University, 1996

J.B.A. (Sandy) Ross, Chemistry & Biochemistry, Ph.D., University of Washington, 1976

D. Scott Samuels, Division of Biological Sciences, Ph.D., University of Arizona, 1991

Stephen R. Sprang, Division of Biological Sciences, Ph.D., University of Wisconsin, Madison, 1977

Kent D. Sugden, Chemistry & Biochemistry, Ph.D., Montana State University, 1992

**Associate Professor:**

Michele A. McGuirl, Division of Biological Sciences, Ph.D., Montana State University, 1999

Klara Briknarova, Chemistry & Biochemistry, Ph.D., Carnegie Mellon University, 1999

**Assistant Professors:**

Doug Raiford, Computer Science, Ph.D., Wright State University, Dayton, Ohio, 2008

Brent Ryckman, Division of Biological Sciences, Ph.D., University of Iowa, 2003

Valeriy Smirnov, Chemistry & Biochemistry, Ph.D., University of Nebraska, 2004

## Central and Southwest Asian Studies

### Dr. Ardi Kia, Advisor

The University of Montana has emerged as a national and international leader in recognizing the significance of Central and Southwest Asia, and translating that awareness into a major academic program. The program builds on significant faculty experience and expertise in the region, and includes scholars from a variety of academic disciplines. The program has also organized intensive summer language training programs at UM, as well as summer study tours for K-12 teachers to Central Asia, and also hosts an annual conference that brings leading scholars, diplomats, analysts, and journalists to the UM campus.

The University of Montana offers an undergraduate major as well as a Minor in Central and Southwest Asian Studies. Arabic, Chinese, Persian, Russian and Turkish language instruction are also offered. Faculty exchanges have been organized with universities in China, Egypt, Georgia, Kazakhstan, Kyrgyzstan, Morocco, Russia and Tajikistan.

### Major in Central and Southwest Asia:

#### Suggested Course of Study in Central and Southwest Asian Studies (CSWA)

	<b>First Year</b>	<b>A S</b>
CSWA 146 H Silk Road (Anthropology106H/History 146H)		3 -
WRIT 101 (ENEX 101) Composition		3 -
Languages (First Year)(Arabic OR Chinese OR Persian OR Russian)		5 5
Math General Education requirement		3
General Education Electives (Groups IV, V, VII, VIII, IX, XI)*		4 7
Total		15 15
	<b>Second Year</b>	<b>A S</b>
Three 200-level Central and Southwest Asian Studies (CSWA) courses.		3 6
Languages (Second Year)(Arabic OR Chinese OR Persian OR Russian)WPE (Writing Proficiency Examination)		5± 5±
General Education Electives (Groups IV, V, VII, VIII, IX, XI)*		7 4
Total		15 15
	<b>Third Year</b>	<b>A S</b>
Three upper level courses in Central and Southwest Asian Studies courses (CSWA) (300 level or above)		3 6
Upper Division Electives(Third and Fourth Year language study strongly encouraged)		12 9
Total		15 15
	<b>Fourth Year</b>	<b>A S</b>
Capstone Requirement: CSWA/ANTH/HSTR 441(HIST 110): Seminar Central Asia OR CSWA 496: Independent Study (Twenty-five page research paper) Either course fulfills the Upper Division Writing Requirement in the Major		3
Upper Division Electives		15 12
Total		15 15

± Some languages may require 4 credits at the sophomore level.

\* See General Education section in the catalogue.

### Central & Southwest Asian Studies Program (CSWA)

1. CSWA/HSTR 146 (HIST 106)/ANTY 141H (ANTH 106H): The Silk Road
2. CSWA/HSTR 241 (HIST 214S)/ANTY 241 (ANTH 214): Central Asia: Peoples and Environments
3. CSWA/HSTR 262 (HIST 283H)/ANTY 243 (ANTH 283): Islamic Civilization: The Classical Age
4. CSWA/HSTR 264 (HIST 284H)/ANTY 244 (ANTH 284): Islamic Civilization: The Modern Era
5. CSWA/HSTR 347 (HIST 346)/ANTY 347 (ANTH 346): Central Asia and Its Neighbors
6. CSWA/HSTR (HIST 386H)/ANTY 345 (ANTH 386): Nationalism in the Middle East & Central Asia
7. CSWA/HSTR 368 (HIST 387)/ANTY 346 (ANTH 387): Iran Between Two Revolutions
8. CSWA/HSTR 442 (HIST 402)/ANTY 442 (ANTH 462): Cities and Landscapes of Central and Southwest Asia
9. CSWA 457: Artistic Traditions of Central Asia (same as ANTY 444 (ANTH 461)/HSTR 459 (HIST 457))
10. CSWA/HSTR 441 (HIST 462)/ANTY 494 (ANTH 460): Central Asia Seminar

### Department of Anthropology

- ARAB 101: Elementary Modern Standard Arabic I
- ARAB 102: Elementary Modern Standard Arabic I
- ARAB 195: Special Topics Variable
- ARAB 201: Intermediate Modern Standard Arabic I
- ARAB 202: Intermediate Modern Standard Arabic II
- ARAB 295: Special Topics Variable
- ARAB 301: Advanced Modern Standard Arabic I
- ARAB 302: Advanced Modern Standard Arabic II
- ARAB 307: Model Arab League Delegates
- ARAB 317: Model Arab League Staff
- ARAB 391: The Arab World
- ARAB 392: Independent Study Variable
- ARAB 395: Special Topics Variable
- CHIN 101: Elementary Chinese I
- CHIN 102: Elementary Chinese II
- CHIN 201: Intermediate Chinese I
- CHIN 202: Intermediate Chinese II
- CHIN 301: Advanced Chinese I
- CHIN 302: Advanced Chinese II
- CHIN 313L: Classical Chinese Poetry in English Translation
- CHIN 314L: Traditional Chinese Literature in English Translation
- CHIN 432L: Twentieth Century Chinese Fiction in English Translation
- CHIN 211H: Chinese Culture and Civilization
- MCLG 380L: Chinese Folktales
- MCLG 195: Elementary Persian I
- MCLG 195: Elementary Persian II
- MCLG 295: Intermediate Persian I
- MCLG 295: Intermediate Persian II
- RUSS 101: Elementary Russian I
- RUSS 102: Elementary Russian II
- RUSS 105: Introduction to Russian Culture (same as MCLG/LS 105)
- RUSS 201: Intermediate Russian I
- RUSS 202: Intermediate Russian II

- ⌘ RUSS 301: Oral and Written Expression I
- ⌘ RUSS 302: Oral and Written Expression II
- ⌘ RUSS 312L: Introduction to Russian Literature I (same as MCLG/LS 306)
- ⌘ RUSS 313L: Introduction to Russian Literature II (same as MCLG/LS 307)
- ⌘ RUSS 308: Russian Cinema and Culture (same as MCLG/LS/ENFM 308)
- ⌘ RUSS 411: 19th Century Major Russian Authors
- ⌘ RUSS 424: Russian Short Story
- ⌘ RUSS 440: Russian Poetry
- ⌘ RUSS 494: Seminar in Russian Studies [Variable] (same as MCLG/HRS 494)

### Department of Anthropology

- ⌘ ANTY 141 H (ANTH 106H): The Silk Road (same as CSWA 146/HSTR 146 (HIST 106H))
- ⌘ ANTY 241 (ANTH 214): Central Asia: Peoples and Environments (HSTR 241 (HIST 214S))
- ⌘ ANTY 243 (ANTH 283): Islamic Civilization: The Classical Age (same as CSWA 262/HSTR 262 (HIST 283H))
- ⌘ ANTY 244 (ANTH 284): Islamic Civilization: The Modern Era (same as CSWA 264/HSTR 264 (HIST 284H))
- ⌘ ANTY 347 (ANTH 346): Central Asia and Its Neighbors (same as CSWA 346/HSTR 347 (HIST 346))
- ⌘ ANTH 367: Iran Between Two Revolutions (same as CSWA 368/HSTR 368 (HIST 387))
- ⌘ ANTY 442 (ANTH 462): Cities and Landscapes of Central and Southwest Asia (same as CSWA 442/HSTR 442 (HIST 402))
- ⌘ ANTY 444 (ANTH 461): Artistic Traditions of Central Asia (same as CSWA 457/HSTR 459 (HIST 457))
- ⌘ ANTY 494 (ANTH 460): Central Asia Seminar (same as CSWA 441/HSTR 441 (HIST 462))

### Department of History

- ⌘ HSTR 146 (HIST 106): The Silk Road (same as ANTH106H/AS 146)
- ⌘ HSTR 241 (HIST 214S): Peoples and Environments (same as ANTH 214/CSWA 241)
- ⌘ HSTR 262 (HIST 283H): Islamic Civilization: The Classical Age (same as ANTH 283)
- ⌘ HSTR 264 (HIST 284H): Islamic Civilization: The Modern Era (same as ANTH 284)
- ⌘ HSTR 357 (HIST 344): Russia to 1881
- ⌘ HSTR 358 (HIST 245): Russia Since 1881
- ⌘ HSTR 347 (HIST 346): Central Asia & Its Neighbors
- ⌘ HSTR 380H (HIST 331H): Modern China
- ⌘ HSTR 386H (HIST 386H): Nationalism in the Middle East and Central Asia
- ⌘ HSTR 368 (HIST 387): Iran Between Two Revolutions
- ⌘ HSTR 442 (HIST 402): Cities and Landscapes of Central and Southwest Asia (same as ANTH 462/CSWA 442)
- ⌘ HSTR 457 (HIST 445): World of Anna Karnina
- ⌘ HSTR 458 (HIST 446): Russian Revolution 1900-1930
- ⌘ HSTR 459 (HIST 457): Artistic Traditions of Central Asia (same as ANTH 461/CSWA 457)
- ⌘ HSTR 441 (HIST 462): Central Asia Seminar (same as ANTH 460/CSWA 441)
- ⌘ HSTR 544 (HIST 544): Modern Russia
- ⌘ HSTR 586 (HIST 586): Modern Islamic Politics

### Requirements for a Minor in Central and Southwest Asia

The Central and Southwest Asian Studies Minor is available to all students. It consists of eighteen credits. Students selecting the minor are required to successfully complete HSTR 146 (HIST106)/ANTH 106H/AS 106H and six credits in foundational Central and Southwest Asian Studies courses (200-level courses). Students must then complete nine credits of additional course work at the 300- or 400- level. No language courses are required; however, students pursuing the minor are strongly encouraged to meet the University-wide general education foreign language competency requirement by completing at least the second semester of one of the following languages (100 level or higher): Chinese, Persian, Arabic, Turkish or Russian. Participation in a study-abroad program is strongly recommended.



To earn a minor in Central and Southwest Asian Studies, students must successfully complete 18 credits as follows:

1. Three credits: The Silk Road - Central and Southwest Asian Studies 106 (ANTY 141H (ANTH 106H) or HSTR 146H (HIST 106H)).
2. Six credits in approved 200-level foundational Central and Southwest Asian Studies courses
3. Nine credits in approved 300 or 400-level Central and Southwest Asian Studies courses.

In addition, it is expected that students will study one of the following languages: Turkish, Persian, Arabic, Russian or Chinese.

A list of approved Central and Southwest Asian courses is available from advisors.

#### **Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### **Central & Southwest Asian Studies Program (CSWA) - Course Descriptions**

146H, 241, 262, 264, 346, 368, 386, 441, 442, 457

#### **FACULTY**

Donald Bedunah, Ph.D., Texas Tech University, 1981

Samir Bitar, M.I.S., The University of Montana, 2009

Timothy Bradstock, Ph.D., Harvard University, 1984

Zhen Cao, Ed.D., The University of Montana, 1997

Robert H. Greene, Ph.D., University of Michigan, 2004

Louis D. Hays, Ph.D., University of Arizona, 1966

Marc Hendrix, Ph.D., Stanford University, 1992

Khaled Huthaily, Ed.D., The University of Montana, 2008

Ardi Kia, Ph.D., University of Wisconsin, 1988

Mehrdad Kia, Ph.D., University of Wisconsin, 1986

Ona Renner-Fahey, Ph.D., Ohio State University, 2003

Bharath Sriraman, Ph.D., Northern Illinois University, 2002

Clint Walker, Ph.D., University of Wisconsin, 2006

#### **Department of Chemistry and Biochemistry**

- ◌ Special Degree Requirements
- ◌ Suggested Course of Study
- ◌ Courses
- ◌ Faculty

**Mark S. Cracolice, Chair**

Chemistry is the central science that involves the study of molecules, their structures, their combinations, their interactions,

and the energy changes accompanying chemical processes.

The Department offers the following degrees: B.S., B.A., M.S., and Ph.D.

Prospective students desiring further information on any program of the Department of Chemistry and Biochemistry should visit the Department of Chemistry and Biochemistry website.

**High School Preparation:** In addition to the general University admission requirements, it is strongly recommended that a student take four of mathematics, four (or more) years of science (earth and space science, biology, chemistry, and physics), four years of a foreign language, and four years of English.

Refer to graduation requirements listed previously in the catalog. See index.

### Special Degree Requirements

All chemistry and biochemistry majors must use the traditional letter grade option in registering for their required science and mathematics courses. The beginning mathematics course for a particular student depends upon a placement examination described at <http://www.umt.edu/mathplacement/>. Students are reminded of the University requirements that 39 of the 120 credits presented for graduation must be at the 300 or higher level, and that at least a 2.00 GPA must be earned in all credits attempted in the major. In addition, courses taken to satisfy the requirements of the major or minor must be completed with a grade of C- or better.

### Bachelor of Science (American Chemical Society Certified)

The courses required for the B.S. degree provide a solid education in chemistry for the professional chemist and in preparation for graduate work in most areas of chemistry. These requirements meet the latest certification standards of the American Chemical Society.

Course	Credits
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II	10
CHMY 221-223 (CHEM 221-222) Organic Chemistry I, II	6
CHMY 222 (CHEM 223) Organic Chemistry I Laboratory	2
CHMY 225 (CHEM 264) Organic Chemistry Laboratory for Chemistry Majors (preferred) or 224 Organic Chemistry II Laboratory	2-3
CHMY 302E (CHEM 334) Chemistry Literature and Scientific Writing (satisfies the Upper-division Writing Expectation)	3
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis	4
CHMY 421 (CHEM 342) Advanced Instrumental Analysis	4
CHMY 373-371 (CHEM 371-372) Phys Chem-Kntcs & Thrmndymcs & Phys Chem-Qntm Chm & Spctrscopy	8
CHMY 401-403 (CHEM 452-453) Advanced Inorganic Chemistry & Descriptive Inorganic Chem	6
CHMY 402 (CHEM 455) Advanced Inorganic Chemistry Laboratory	2
BCH 480 (BIOC 481) Advanced Biochemistry or equivalent	3
BCH 486 (BIOC 486) Biochemistry Research Laboratory	3
Advanced Electives (from CHMY 391, 442, 445, 465, 491 and 3 credits maximum of 492, or 3 credit maximum of 499, or with consent of chemistry advisor, from advanced courses in chemistry, physics, geology, biochemistry, or mathematics (CHEM 395, 442, 445, 465, 495, 3 credits maximum of 497, or 3 credit maximum of 499, or with consent of chemistry advisor, from advanced courses in chemistry, physics, geology, biochemistry or mathematics)).	3
<b>Cognate courses:</b>	
CSCI 172 (CS 172) Introduction to Computer Modeling (or similar computing experience with consent of chemistry advisor)	3
M 171-172 and 273 (MATH 152-153 and 251) Calculus I, II, III	12
M 311 (MATH 311) Ordinary Differential Equations and Systems or M 221 (MATH 221) Linear Algebra	3
PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus	10
Modern foreign language	10
WRIT 101 (ENEX 101)	3

At the time of graduation a recipient of this degree has the option of taking two semesters of one modern foreign language which, as a departmental requirement, may be taken credit/no credit. Students not taking this option will be required to take 2 additional advisor-approved Chemistry & Biochemistry or related discipline electives for 3 credits each. This will bring the elective credits for this option to 9.

### Bachelor of Science with a major in Chemistry, Option in Environmental Chemistry

Course	Credits
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II	10
CHMY 221-223 (CHEM 221-222) Organic Chemistry and Laboratory I, II	6

CHMY 222 (CHEM 223) Organic Chemistry Laboratory I	2
CHMY 225 (CHEM 264) Organic Chemistry Laboratory for Chemistry Majors or 224 Organic Chemistry II Laboratory	2-3
CHMY 302E (CHEM 334) Chemistry Literature and Scientific Writing (satisfies the Upper-division Writing Expectation)	3
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis	4
CHMY 421 (CHEM 342) Advanced Instrumental Analysis	4
CHMY 360 (CHEM 370)Applied Physical Chemistry or CHMY 373 (CHEM 371) Phys Chem-Kntcs & Thrmdynmcs	3-4
CHMY 401 (CHEM 452) Advanced Inorganic Chemistry	3
BCH 480 (BIOC 481) Advanced Biochemistry I	3
BIOB 160N (BIOL 110N) Principles of Living Systems or equivalent	4
BIOB 260/261 (BIOL 221) Cellular and Molecular Biology	4
BIOB 275 (BIOL 223) General Genetics	4
GEO 101N-102N (GEOS 100N-101N) General Geology and Laboratory	3
GEO 327 (GEOS 327) Geochemistry	3
Electives from CHMY 373, 371, 442, 445, 403, 402, 465, 466; (CHEM 371, 372, 442, 445, 453, 455, 465, 466); 3 credits maximum of 792 (CHEM 497); BIOE 370 (BIOL 340), BIOL 453, 454, 455, BIOB 490 (BIOL 497), 3 credits maximum of 497; GEO 320, 382, 431, 420 (GEOS 320, 382, 431, 480), 3 credits maximum of 497; BIOM 360 (MICB 300), 3 credits maximum of 497; STAT 452 (MATH 445); Modern Foreign Language (5 credits maximum)	8
M 171 (MATH 152) Calculus I	4
M 172 (MATH 153), Calculus II	3-4
STAT 451, 457 (MATH 444, 447) Statistics	4
PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus	10

#### **Bachelor of Science with a major in Chemistry, Option in Forensic Chemistry**

The Chemistry B.S. degree with the option in Forensic Chemistry forms a solid base for students interested in careers in forensic chemistry or advanced work in chemistry including graduate school.

At the time of graduation a recipient of this degree has the option of taking two semesters of one modern foreign language which, as a departmental requirement, may be taken credit/no credit. Students not taking this option will be required to take 2 additional advisor-approved Chemistry & Biochemistry or related discipline electives for 3 credits each. This will bring the elective credits for this option to 9.

<b>Course</b>	<b>Credits</b>
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II	10
CHMY 221-223 (CHEM 221-222) Organic Chemistry I, II	6
CHMY 222 (CHEM 223) Organic Chemistry I Laboratory	2
CHMY 225 (CHEM 264) Organic Chemistry Laboratory for Chemistry Majors of CHMY 223 (CHEM 223) Organic Chemistry II Laboratory	2-3
CHMY 302E (CHEM 334) Chemistry Literature and Scientific Writing (satisfies the Upper-division Writing Expectation)	3
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis	4
CHMY 421 (CHEM 342) Advanced Instrument Analysis	4
CHMY 360 (CHEM 370)Applied Physical Chemistry or CHMY 373 (CHEM 371) Phys Chem-Kntcs & Thrmdynmcs	3-4
BCH 480-482 (BIOC 481-482) Advanced Biochemistry I, II or equivalent	6
CHMY 401 (CHEM 452) Advanced Inorganic Chemistry	3
CHMY 488 (CHEM 488) Forensic Research or CHEM 498 Internship	3
CHMY 489 (CHEM 489) Forensic Science Seminar	1
ANTH 286N Survey of Forensic Science	3
BIOB 106N (BIOL 110N) Principles of Living Systems	4
BIOB 260/261 (BIOL 221) Cellular and Molecular Biology	4
COMX 111A (COMM 111A) Public Speaking	3
M 171-172 (MATH 152-153) Calculus I, II	8
STAT 451 (MATH 444) Statistical Methods	3
STAT 457 (MATH 447) Computer Data Analysis	1
PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus	10
SOCI 211S (SOC 230S) Criminology	3

SOCI 221 (SOC 235) Criminal Justice	3
Electives from CHMY 465, 466, 542 (CHEM 465, 466, 542); ANTH 488; BIOB 275 (BIOL 223), 440; PHAR 110. (at least 8 of these credits must be in courses numbered 300 and above)	11

#### Bachelor of Science with a major in Chemistry, Option in Pharmacology

Course	Credits
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II	10
CHMY 221-223 (CHEM 221-222) Organic Chemistry and Laboratory I, II	6
CHMY 222 (CHEM 223) Organic Chemistry I Laboratory	2
CHMY 225 (CHEM 264) Organic Chemistry Laboratory for Chemistry Majors or 224 (CHEM 224) Organic Chemistry II Laboratory	2-3
CHMY 302E (CHEM 334) Chemistry Literature and Scientific Writing (satisfies the Upper-division Writing Expectation)	3
CHMY 311 (CHEM 341) Quantitative Analysis & Instrumental Methods	4
CHMY 421 (CHEM 342) Advanced Instrument Analysis	4
CHMY 360 (CHEM 370) Applied Physical Chemistry or CHMY 373 (CHEM 371) Phys Chem-Kntcs & Thrmdynmcs	3-4
CHMY 401 (CHEM 452) Advanced Inorganic Chemistry	3
BCH 481-482 (BIOC 481-482) Advanced Biochemistry I, II	6
BIOB 160N (BIOL 110N) Principles of Living Systems or equivalent	4
BIOB 260/261 (BIOL 221) Cellular and Molecular Biology	4
BIOM 400 (MICB 302) Medical Microbiology	3
PHAR 341-342 Applied Anatomy and Physiology	8
PHAR 443-444 Pharmacology and Toxicology	8
Electives from CHMY 373, 371, 442, 445, 403, 402, 465, 466 (CHEM 371, 372, 442, 445, 453, 455, 465, 466), 3 credits maximum of 492 (CHEM 497); BIOB 490 (BIOL 497) 3 credits maximum; PHAR 421, 422, 3 credits maximum of 497	3
<b>Cognate courses:</b>	
M 162 (MATH 150) Applied Calculus or 171 (MATH 152) Calculus I	4
M 274 (MATH 158) Applied Differential Equations or 172 (MATH 153) Calculus II	3-4
PHSX 205N-206N and 207N-208N (PHYS 111N-113N and 112N-114N) Fundamentals of Physics I, II or PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus	10

#### Bachelor of Arts Degree

The courses required for the B.A. degree provide a less extensive training in chemistry than do the courses required for the American Chemical Society certified B.S. degree. This is to allow the student to supplement his or her program with courses that meet his or her specific needs. Thus this degree provides the core of traditional preparation in chemistry together with latitude for combination with an interdisciplinary field or the Teacher Preparation program. It is strongly advised that students using this degree obtain faculty advice in planning their program.

Course	Credits
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II	10
CHMY 221-223 (CHEM 221-222) Organic Chemistry I, II	6
CHMY 222 (CHEM 223) Organic Chemistry I Laboratory	2
CHMY 225 (CHEM 264) Organic Chemistry Laboratory for Chemistry Majors or 224 (CHEM 224) Organic Chemistry II Laboratory	2-3
CHMY 302E (CHEM 334) Chemistry Literature and Scientific Writing (satisfies the Upper-division Writing Expectation)	3
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis	4
CHMY 421 (CHEM 342) Advanced Instrument Analysis	4
CHMY 373-371 (CHEM 371-372) Phys Chem-Kntcs & Thrmdynmcs & Phys Chem-Qntm Chm & Spctrscopy	8
* Advanced electives	15
<b>Cognate courses:</b>	
CSCI 172 (CS 172) Introduction to Computer Modeling (or similar computing experience with approval of Chemistry advisor)	3
M 171, 172, 273 (MATH 152, 153, 251) Calculus I, II and III	12
PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus (preferred) or PHSX 205N-206N and 207N-208N (PHYS 111N-113N and 112N-114N) Fundamentals of Physics I, II or	10
Modern Foreign Language	10
WRIT 101 (ENEX 101) Composition.	3

\*As preparation for teaching at the secondary level, students should elect CHMY 401, 403, 485 (CHEM 452, 453, and 485), BCH 380 (BIOC 380), STAT 216 (MATH 241), SCI 350 and teaching licensure requirements including EDU 497 (C&I 426). A student should consult his or her chemistry advisor for other options.

At the time of graduation a recipient of this degree must have completed two semesters of one foreign language. The Department of Chemistry waives the foreign language requirement for a student who completes the B.A. degree in preparation for secondary teaching and who meets the requirements for teaching licensure, including the student teaching requirement. These students still must meet the foreign language/symbolic systems competency requirement (likely via M 171 and 172

(MATH 152 and 153) for General Education as described in the Academic Policies and Procedures section of this catalog.

#### Teacher Preparation in Chemistry

**Major Teaching Field of Chemistry:** For an endorsement in the major teaching field of Chemistry, a student must complete the requirements for the above B.A. degree with a major in Chemistry with appropriate electives but without the foreign language requirement, and with the addition of CHMY 401, 403, and 485 (CHEM 452, 453, and 485). Students also must complete BCH 380 (BIOC 380), STAT 216 (MATH 241), SCI 350, and EDU 497 (C&I 426), gain admission to Teacher Education Program and meet the requirements for teaching licensure (see the College of Education section of this catalog).

**Minor Teaching Field of Chemistry:** For an endorsement in the minor teaching field of Chemistry, a student must complete CHMY 101N, 141N-143N, 221-222-223, 311, 360 or 373 and 485 (CHEM 101N, 161N-162N, 221-222-223, 341, 370 or 371, and 485); BCH 380 (BIOC 380), CSCI 100 or 172 (CS 101 or 172), M 162 (MATH 150) and STAT 216 (MATH 241), PHSX 205N-206N, 207N-208N (PHYS 111N-113N, 112N-114N) and SCI 350. Students also must complete EDUC 497 (C&I 426), gain admission to Teacher Education Program and meet other requirements for teaching licensure (see the College of Education section of this catalog).

#### Suggested Course of Study

##### For B.S. Degree (American Chemical Society Certified)

	<b>First Year</b>	<b>A S</b>
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II		5 5
CSCI 172 (CS 172) Computer Modeling		- 3
M 171-172 (MATH 152-153) Calculus I, II		4 4
WRIT 101 (ENEX 101) Composition		3 -
Electives and General Education		3 3
		15 15
	<b>Second Year</b>	<b>A S</b>
CHMY 221-223 (CHEM 221-222) Organic Chemistry I, II		3 3
CHMY 222 (CHEM 223) Organic Chemistry I Laboratory		2 -
CHMY 225 (CHEM 264) (or 224) Organic Chemistry Laboratory		- 3
M 273 (MATH 251) Calculus III		4 -
M 311 (MATH 311) Ordinary Differential Equations and Systems or M 221 (MATH 221) Linear Algebra		- 3
PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus		5 5
Electives and General Education		- 3
		14 17
	<b>Third Year</b>	<b>A S</b>
CHMY 302E (CHEM 334) Chem Literature & Scientific Writing		3 -
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis		4 -
CHMY 421 (CHEM 342) Advanced Instrument Analysis		- 4
CHMY 373-371 (CHEM 371-372) Phys Chem-Kntcs & Thrmdynmcs & Phys Chem-Qntm Chm & Spctrscopy		4 4
General Education (one upper-division)		6 9
		17 17
	<b>Fourth Year</b>	<b>A S</b>
CHMY 401-403 (CHEM 452-453) Advanced Inorganic Chemistry		3 3
CHMY 402 (CHEM 455) Advanced Inorganic Chemistry Laboratory		- 2
BCH 480 (BIOC 481) Advanced Biochemistry I		3 -
BCH 486 (BIOC 486) Biochemistry Research Laboratory		3 -
Advanced CHEM elective		3 3
General Education		- 3
Upper-division elective		6 6
		15 17

##### For B.S. Degree, Option in Environmental Chemistry

	<b>First Year</b>	<b>A S</b>
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II		5 5
M 171 (MATH 152) Calculus I		4 -
M 172 (MATH 153) Calculus II		- 4
BIOB 160N (BIOL 110N) Principles of Living Systems or equivalent		- 4
WRIT 101 (ENEX 101) Composition		3 -
Electives and General Education		4 2
		16 14-15
	<b>Second Year</b>	<b>A S</b>

CHMY 221-223 (CHEM 221-222) Organic Chemistry	3	3
CHMY 222 (CHEM 223) Organic Chemistry I Laboratory	2	-
CHMY 225 or 224 (CHEM 264 or 224) Organic Chemistry Laboratory	-	3
PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus	5	5
BIOB 260/261 (BIOL 221) Cellular and Molecular Biology	4	-
BIOB 275 (BIOL 223) General Genetics	-	4
GEO 101N-102N (GEOS 100N-101N) General Geology and Laboratory	3	-
	17	15

**Third Year****A S**

CHMY 302E (CHEM 334) Chem Literature & Scientific Writing	3	-
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis	4	-
CHMY 421 (CHEM 342) Advanced Instrument Analysis	-	4
CHMY 360 (CHEM 370) Applied Physical Chemistry or CHMY 373 (CHEM 371) Phys Chem-Kntcs & ThrmDymcs	-	3-4
GEO 327 (GEOS 327) Geochemistry	3	-
Electives and General Education	6	9
	16	16-17

**Fourth Year****A S**

BCH 480-482 (BIOC 481-482) Advanced Biochemistry I, II	3	-
CHMY 401 (CHEM 452) Advanced Inorganic Chemistry	3	-
CHMY 494 (CHEM 494) Seminar/Workshop	-	1
STAT 451/457 (MATH 444/447) Statistical Methods	4	-
Electives and General Education	4	15
	17	16

**For B.S. Degree, Option in Forensic Chemistry****First Year****A S**

CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II	5	5
M 171-172 (MATH 152-153) Calculus I, II	4	4
BIOB 160N (BIOL 110N) Principles of Living Systems or equivalent	-	4
COMX 111A (COMM 111A) Public Speaking	3	-
WRIT 101 (ENEX 101) Composition	-	3
Electives and General Education	3	-
	15	16

**Second Year****A S**

CHMY 221-223 (CHEM 221-222) Organic Chemistry	3	3
CHMY 223 (CHEM 223) and CHMY 225 or 224 (CHEM 264 or 224) Organic Chemistry I Laboratory	2	2
PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus	5	5
BIOB 260/261 (BIOL 221) Cellular and Molecular Biology	4	-
SOCI 211S (SOC 230S) Criminology	3	-
CJUS 125N (ANTH 286N) Fundamentals of Forensic Science	-	3
General Education	-	3
	17	16

**Third Year****A S**

CHMY 302E (CHEM 334) Chem Literature & Scientific Writing	3	-
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis	4	-
CHMY 421 (CHEM 342) Advanced Instrument Analysis	-	4
CHMY 360 (CHEM 370) Applied Physical Chemistry	-	3
STAT 451/457 (MATH 444/447) Statistical Methods	4	-
SOCI 221 (SOC 235) Criminal Justice	-	3
Electives and General Education	6	6
	15	16

**Fourth Year****A S**

BIOC 480-482 (BIOC 481-482) Advanced Biochemistry I	3	3
CHMY 401 (CHEM 452) Advanced Inorganic Chemistry	3	-
CHMY 488 (CHEM 488) Forensic Research	-	3
CHMY 489 (CHEM 489) Forensics Research Seminar	1	-
Electives and General Education	9	9
	16	15

**For B.S. Degree, Option in Pharmacology****First Year****A S**

CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II	5	5
M 162 (MATH 150) Applied Calculus or 171 (MATH 152) Calculus I	4	-
M 274 (MATH 158) Applied Differential Equations or M 172 (MATH 153) Calculus II	-	3-4
BIOB 160N (BIOL 110N) Principles of Living Systems or equivalent	-	4
WRIT 101 (ENEX 101) Composition	3	-
Electives and General Education	4	2

		14- 16 15
	<b>Second Year</b>	<b>A S</b>
CHMY 221-223 (CHEM 221-222) Organic Chemistry		3 3
CHMY 222 (CHEM 223) Organic Chemistry I Laboratory		2 -
CHMY 225 or 224 (CHEM 264 or 224) Organic Chemistry Laboratory		- 3
PHSX 205N-206N and 207N-208N (PHYS 111N-113N and 112N-114N) Fundamentals of Physics I, II or PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus		5 5
BIOB 260-261 (BIOL 221) Cellular and Molecular Biology		4 -
Electives and General Education		- 6
		17 15
	<b>Third Year</b>	<b>A S</b>
CHMY 302E (CHEM 334) Chem Literature & Scientific Writing		3 -
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis		4 -
CHMY 421 (CHEM 342) Advanced Instrument Analysis		- 4
CHMY 360 (CHEM 370) Applied Physical Chemistry or CHMY 373 (CHEM 371) Phys Chem-Kntcs & ThrmDymcs		- 3-4
BIOM 400 (MICB 302E) Medical Microbiology		3 -
PHAR 341-342 Applied Anatomy and Physiology		4 4
Electives and General Education		3 6
		17 17- 18
	<b>Fourth Year</b>	<b>A S</b>
BCH 480-482 (BIOC 481-482) Advanced Biochemistry I, II		3 3
CHMY 401 (CHEM 452) Advanced Inorganic Chemistry		3 -
PHAR 443-444 Pharmacology and Toxicology		4 4
Electives and General Education		6 7
		16 14
 <b>For B.A. Degree</b>		
	<b>First Year</b>	<b>A S</b>
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I, II		5 5
CSCI 172 (CS 172) Introduction to Computer Modeling		- 3
WRIT 101 (ENEX 101) Composition		3 -
M 171-172 (MATH 152-153) Calculus I and II		4 4
General Education or electives		3 3
		15 15
	<b>Second Year</b>	<b>A S</b>
CHMY 221-223 (CHEM 221-222) Organic Chemistry		3 3
CHMY 222 (CHEM 223) Organic Chemistry I Laboratory		2 -
CHMY 225 (CHEM 264) (or 224) Organic Chemistry Laboratory		- 3
M 273 (MATH 251) Calculus III		4 -
PHSX 215N-216N and 217N-218N (PHYS 211N-213N or 212N-214N) Fundamentals of Physics I and II with Calculus (preferred) or PHSX 205N-206N and 207N-208N (PHYS 111N-113N and 112N-114N) Fundamentals of Physics I, II		5 5
General Education or electives		- 6
		14 17
	<b>Third Year</b>	<b>A S</b>
CHMY 302E (CHEM 334) Chem Literature & Scientific Writing		3 -
CHMY 311 (CHEM 341) Analytical Chem-Quant Analysis		4 -
CHMY 421 (CHEM 342) Advanced Instrument Analysis		- 4
CHMY 373-371 (CHEM 371-372) Phys Chem-Kntcs & ThrmDymcs & Phys Chem-Qntm Chm & Spctrscopy		4 4
Advanced electives		3 3
General Education		3 6
		17 17
	<b>Fourth Year</b>	<b>A S</b>
Advanced CHEM elective		3 3
General Education or elective		3 -
Modern Foreign Language		5 5
Upper-division elective		6 6
		17 14

**Requirements for a Minor** To earn a minor in chemistry the student must complete CHMY 141N, 143N, 221, 222, 223, 311, 360 or 373 (CHEM 161N, 162N, 221, 222, 223, 341, 370 or 371) and at least two courses from one of the following groups:

(a) CHMY 422, 371, 442, 445, 401, 403, 465 (CHEM 342, 372, 442, 445, 452, 453, 465)

(b) If the student's major does not require biochemistry, BCH 380 or 480 and 482 (BIOC 380 or 481 and 482)

For teaching minor requirements, see the Teacher Preparation in Chemistry section above.

### **Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### **Chemistry (CHMY) - Course Descriptions**

101N, 104, 121N, 122, 123N, 124N, 141N, 143N, 191, 221, 222, 223, 224, 225, 291, 292, 302E, 311, 360, 371, 373, 391, 397, 398, 401, 402, 403, 421, 442, 445, 465, 466, 480, 485, 488, 489, 490, 491, 492, 494, 498, 499, 501, 541, 542, 544, 553, 561, 562, 563, 564, 566, 568, 569, 573, 580, 581, 593, 595, 596, 597, 598, 599, 630, 640, 650, 697, 699

### **Faculty**

#### **Professors**

Bruce E. Bowler, Ph.D., Massachusetts Institute of Technology, 1986

Mark S. Cracolice, Ph.D., University of Oklahoma, 1994 (Chair)

Michael D. DeGrandpre, Ph.D., University of Washington, 1990

Daniel J. Dwyer, Ph.D., Lehigh University, 1976

Christopher P. Palmer, Ph.D., University of Arizona, 1991

Nigel D. Priestley, Ph.D., Southampton University, 1991

Edward Rosenberg, Ph.D., Cornell University, 1970

J.B.A. (Sandy) Ross, Ph.D., University of Washington, 1976

Garon C. Smith, Ph.D., Colorado School of Mines, 1983

Kent Sugden, Ph.D., Montana State University, 1992

#### **Associate Professors**

Klára Briknarová, Ph.D., Carnegie Mellon University, 1999

Xi Chu, Ph.D., University of Kansas, 2001

Aaron Thomas, Ph.D., University of Florida, 2001

#### **Assistant Professors**

Orian Berryman, Ph.D., University of Oregon, 2008

Valeriy Smirnov, Ph.D., University of Nebraska, 2004

#### **Lecturer**

Holly A. Thompson, Ph.D., Kansas State University, 1982

#### **Research Professor**

Robert Yokelson, Ph.D., Yale University, 1991

#### **Research Associate Professors**

William R. Laws, Ph.D., The Johns Hopkins University, 1977



Brooke D. Martin, Ph.D., Dartmouth College, 1998

**Research Assistant Professor**

Earle R. Adams, Ph.D., Montana State University, 1994

**Emeritus Professors**

James W. Cox, Ph.D., Montana State University, 1969

Ralph J. Fessenden, Ph.D., University of California, 1958

Richard J. Field, Ph.D., University of Rhode Island, 1968

Donald E. Kiely, Ph.D., University of Connecticut, 1965

R. Keith Osterheld, Ph.D., University of Illinois, 1950

Edward E. Waali, Ph.D., University of Wyoming, 1970

George W. Woodbury, Jr., Ph.D., University of Minnesota, 1964

**Department of Communication Studies**

- ◌ Special Degree Requirements
- ◌ Suggested Course of Study
- ◌ Courses
- ◌ Faculty

[This portion of the catalog was edited after the catalog was published. Updated September 20, 2013.](#)

**Steve Schwarze, Chair**

Communication Studies engages in both social-scientific and humanistic approaches to the analysis, understanding and improvement of human communication. The discipline traces its roots to ancient Greek and Roman studies of the functions of public discourse in society, but in the twentieth century communication came to embrace the studies of interpersonal and small group interaction, human relations in organizations, media and society, and intercultural interaction. Although interdisciplinary in spirit, the discipline has a core of knowledge, theory, and concepts concentrating on such things as symbols, messages, interactions, networks, audiences, and persuasive campaigns. Uniting the field is the belief that the role of communication in human experience is basic to comprehending complex situations and problems in the modern world. The discipline has roles in both the broad traditions of liberal arts education and in the development and refinement of practical skills.

The Department of Communication Studies at The University of Montana-Missoula focuses on three broad areas of study: interpersonal interaction and human relationships, organizational communication, and rhetoric and public discourse. The knowledge and skills the student may acquire in each of these areas are important to functioning effectively in one's personal life, at work, and as a citizen of the larger society in a rapidly changing world.

The program in Communication Studies helps to prepare students for such diverse professions as: public relations officer, marketing analyst, human resources or personnel manager, community mediator, political speech writer, health communication trainer, social services director, or student services coordinator. Also, undergraduate and graduate study can assist the student in pursuing advanced studies for law, the ministry, and higher education.

**Special Degree Requirements**

**Admission Requirements**

To be admitted to the Communication Studies major, a student must complete COMX 111A (COMM 111A) and two other lower-division COMX (COMM) courses.

Students who intend to major in communication studies but who have not yet met the above requirements are admitted to the program as Pre-Communication (PCOM) majors. (PCOM) majors may enroll in 100- and 200-level COMX (COMM) courses only. Students must be fully admitted as Communication Studies (COMM) majors to enroll in 300- and 400-level courses.

#### Core Requirements

To graduate with a degree in Communication Studies, the student must complete 36 COMX (COMM) credits with 18 of those credits in courses numbered 300 or above. A maximum of 6 credits in COMX 312 (COMM 360) and a maximum of 6 credits in COMX 398 (COMM 398) may count toward a major in communication studies. The following courses are required:

- A course in statistics (does not count toward 36 credits in Communication)
- COMX 115S (COMM 110S) Introduction to Interpersonal Communication
- COMX 111A (COMM 111A) Introduction to Public Speaking
- COMX 220S (COMM 230S) Introduction to Organizational Communication
- COMX 240H (COMM 250H) Introduction to Rhetorical Theory
- COMX 460 (COMM 460) Research Methods

To meet the Upper-division Writing Expectation for the major in Communication Studies, students must successfully complete one of the following courses: COMX 347, 414, 413, 421, 422, 424, 445, 447, 449 (COMM 377, 410, 413, 421, 422, 424, 455, 480, 481) or another course approved for this purpose by the University curriculum committee.

#### Options and Allied Fields

COMM majors are advised to take courses in other allied disciplines throughout the University that will provide an increased understanding of communication, such as anthropology, business, English, environmental studies, linguistics, management, marketing, political science, psychology, social work, and sociology and women's and gender studies.

Students also are encouraged to consider a second major and/or minor in fields that complement their communication degree.

For instance, students interested in helping professions and associated content areas (e.g., children, families, aging) may choose the human and family development minor or the minor in gerontology. Student interested in new communication technology and its use within organizations should consider the media arts minor, while students interested in non-profit organizations should consider the minor in non-profit administration. Students in the rhetoric and public discourse should consider the minor in women's and gender studies or climate change.

Students can integrate courses in other fields into the COMM major by pursuing one or more of the options listed below.

#### Communication and Human Relationships Option

Students who elect to concentrate in communication and human relationships must complete:

All the core requirements listed previously.

At least five courses from the following: COMX 202S (COMM 202S) (Nonverbal Communication), 311 (COMM 311) (Family Communication), 380 (COMM 380) (Gender and Communication), 414 (COMM 410) (Communication in Personal Relationships), 412 (COMM 412) (Communication and Conflict), 413 (COMM 413) (Communication and Conflict-Writing) and 415 (COMM 451) (Intercultural Communication), [COMX 485 \(COMM 485\) Communication and Health](#).

At least four courses from the following list: ANTY 227, 427 (ANTH 227, 427); COUN 485; EDEC 310 (C&I 355); HFD 412; NAS 342; PSYX 230S, 233, 345, 339, 360S, 385S, 348 (PSYC 240, 245, 336, 340, 350S, 351S, 385); SOCI 220S, 275S, 330, 332, 350 or 382 (SOC 220, 275S, 300, 330S, 340, or 350); SW 300, 420, 460.

Students may petition to count appropriate special topics or transfer courses upon recommendation of the student's advisor. All courses should be selected in consultation with a faculty advisor. Students electing this option are encouraged to minor in Human and Family Development.

#### Organizational Communication Option

Students who elect to concentrate in organizational communication must complete:

All the core requirements listed previously.

At least five courses from the following: COMX 210 (COMM 240) (Communication in Small Groups), COMX 351 (COMM 321) (Principles of Public Relations), COMX 352 (COMM 322) (Public Relations Writing), COMX 412 (COMM 412) (Communication and Conflict), COMX 421 (COMM 421) (Communication in Nonprofit Organizations), COMX 422 (COMM 422) (Communication and Technology in Organizations), COMX 423 (COMM 423) (Practical Issues in Organizational Communication), COMX 424 (COMM 424) (Risk, Crisis and Communication), COMM 425 (Communication in Health Organizations), and COMX 415 (COMM 451) (Intercultural Communication).

At least three courses from the following list: ANTY 220S (ANTH 220S), BGEN 320E (MGMT 320E), BGEN 360 (MGMT 368), BMGT 340S (MGMT 340S), BMGT 357 (MGMT 457), BMGT 480 (MGMT 480); BMKT 325 (MKTG 360), BMKT 343 (MKTG 363), BMKT 412 (MKTG 412); PSCI 361, 462, 466, 467 (PSC 361, 460, 466 and 467); SOCI 306, 345, 371 (SOC 306S, 320, 370S).

Students may petition to count appropriate special topics or transfer courses upon recommendation of the student's advisor. All courses should be selected in consultation with a department faculty advisor.

#### Rhetoric and Public Discourse Option

Students who elect to concentrate in rhetoric and public discourse must complete:

All the core requirements listed previously.

At least four courses from the following: COMX 241 (COMM 241) (Persuasive Communication), COMX 242 (COMM 242) (Argumentation), COMX 343 (COMM 350) (Persuasive Speaking and Criticism), COMX 347 (COMM 377) (Rhetoric, Nature and Environmentalism), COMX 349 (COMM 379) (Consumption, Media, and the Environment), COMX 380 (COMM 380) (Gender and Communication), COMX 445 (COMM 455) (Rhetorical Criticism and Theory), COMX 447 (COMM 480) (The Rhetorical Construction of "Woman"), and COMX 449 (COMM 481) (The Rhetoric of U.S. Women's Activism).

At least four courses from the following: ANTY 122S (ANTH 102); CCS 203; ECNS 433, 445 (ECON 440, 445); ENST 320, 367, 421 (EVST 167H, 367, 420); HSTA 102H, 262, 321, 322, 344, 387, 388, or 478; HSTR 272E, 302, 364, 384E (HIST 152H, 262, 357, 358, 362, 370H, 371H 226E, 301H, 364, 335E); MAR 101L; PHL 235 (PHIL 211), PHL 422 (EVST 427); PSCI 250E, 342, 343, 352, 355, 444, 471 or 474 (PSC 150E, 342, 343, 352, 355, 444, 471 or 472); SOCI 220S, 225, 325, 350, 470, 485 (SOC 220, 225, 325, 340, 470 or 485).

Students may petition to count appropriate special topics or transfer courses upon recommendation of the student's advisor. All courses should be selected in consultation with a faculty advisor.

#### Suggested Course of Study

	<b>First Year</b>	<b>A</b>	<b>S</b>
COMX 115S (COMM 110S) Introduction to Interpersonal Communication	-	3	
COMX 111A (COMM 111A) Introduction to Public Speaking	3	-	
COMX (COMM) elective	-	3	
WRIT 101 (ENEX 101) Composition	3	-	
M 116 (MATH 117) Probability and Linear Mathematics	3	-	
General Education	6	9	
	15	15	
	<b>Second Year</b>	<b>A</b>	<b>S</b>
COMX (COMM) electives	-	6	
COMX 220S (COMM 230S) Introduction to Organizational Communication	3	-	
COMX 240H (COMM 250H) Introduction to Rhetorical Theory	3	-	
STAT 216 (MATH 241) or PSYC 222 (PSYC 220) or SOCI 202 (SOC 202) or HHP 486	3-4	-	
General Education	3	3	
Electives	3	6	
	15-16	15	
	<b>Third Year</b>	<b>A</b>	<b>S</b>
COMX (COMM) Writing course	3	-	

COMX 460 (COMM 460) Communication Research Methods	-	3	
Upper-division COMM electives	3	3	
Upper-division electives	-	9	
Electives	9	-	
	15	15	
			<b>Fourth Year</b>
			<b>A S</b>
Upper-division COMM electives	3	3	
Upper-division electives	9	-	
Electives	3	12	
	15	15	

#### Requirements for a Minor

To be admitted to the communication studies minor, a student must complete COMX 111A (COMM 111A) and two other lower-division COMX (COMM) courses.

Students who intend to minor in communication studies but who have not yet met the above requirements are admitted as Pre-communication (PCOM) minors. Pre-communication minors may enroll in 100- and 200-level courses only. Students must be fully admitted as communication studies minors to enroll in 300- and 400-level courses.

Once admitted to earn a minor, the student must complete a minimum of 20 credits in COMX (COMM) courses, with at least 9 credits in courses numbered 300 and above. A maximum of 6 credits in COMX 312 (COMM 360) may count toward a minor in communication studies.

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### Communication (COMX) - Course Descriptions

102, 111A, 115S, 140L, 191, 191S, 192, 202S, 204X, 210, 212X, 217A, 219S, 220S, 222, 240H, 241, 242, 250, 291, 292, 311, 312, 343, 347, 349, 351, 352, 380, 391, 398, 412, 413, 414, 415, 421, 422, 423, 424, 425, 445, 447, 449, 460, 461, 485, 491, 492, 493, 495, 510, 511, 512, 514, 515, 520, 540, 541, 555, 561, 572, 575, 585, 593, 594, 595, 596, 599

#### Faculty

##### Professors

Sara E. Hayden, Ph.D., University of Minnesota, 1994

Alan L. Sillars, Ph.D., University of Wisconsin, 1980

Betsy Wackernagel Bach, Ph.D., University of Washington, 1985

##### Associate Professors

Joel Iverson, PH.D., Arizona State University, 2003

Greg Larson, Ph.D., University of Colorado, 2000

Steve Schwarze, Ph.D., The University of Iowa, 1999 (Chair)

Stephen M. Yoshimura, Ph.D., Arizona State University, 2002

Christina Yoshimura, Ph.D., Arizona State University, 2004

##### Lecturer

David Airne, M.A. North Dakota State University, 1998

##### Adjunct Instructor

Phyllis Bo-yuen Ngai, Ed.D., The University of Montana, 2004

**Emeritus Professor**

William W. Wilmot, Ph.D., University of Washington, 1970

**Emeritus Associate Professor**

James H. Polsin, Ph.D., University of Kansas, 1971

## Comparative Literature

**Robert Baker (Assistant Professor of English), Chair, Comparative Literature Committee**

Comparative literature is the study of literature beyond the confines of one national literature. It is especially concerned with the similarities and differences which can be observed in literary works in different languages. It makes comparisons from various points of view, studying, for example, movements, periods, genres and themes in two or more national literatures. Certain types of comparative literature studies can be highly useful to students in such fields as psychology, philosophy, anthropology and history, as well as to majors in English and modern and classical languages and literatures.

Students interested in working toward a degree in comparative literature (not offered by this University) should bear in mind that a knowledge of at least two foreign languages is indispensable for advanced work. Courses in comparative literature topics are offered at The University of Montana-Missoula in several departments: English, Drama, Philosophy, Liberal Studies, Modern and Classical Languages and Literatures, Native American Studies, and Asian Studies. For advising see the chair.

## Department of Computer Science

- ◌ Special Degree Requirements
- ◌ Suggested Course of Study
- ◌ Courses
- ◌ Faculty

**Yolanda Reimer, Chair**

The growing utility of computers in research and education, as well as the increased impact of computers on our modern society, strongly implies that knowledge of computers and their capabilities should be a part of the basic education of all students. The courses listed below are designed to provide the student with this knowledge and to prepare the student for a career in a field in which there is a growing need for trained personnel. The objective of the undergraduate curriculum in computer science is to develop professionally competent, broadly educated computer scientists who wish to pursue professional careers or graduate studies.

The B.S. program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>. For more information access our homepage <http://www.cs.umt.edu> or email the chair at [yolanda.reimer@umontana.edu](mailto:yolanda.reimer@umontana.edu).

**High School Preparation:** In addition to general University admission requirements, pre-college preparation should include as many computer science courses as possible, and four years of high school mathematics, to include algebra, trigonometry and pre-calculus. Also recommended are physics, chemistry and biology.

### Admission Requirements

Admission to computer science courses varies according to course level and other departmental standards. However, students must have completed all prerequisite courses with a grade of at least a "C-".

### Lower-Division Courses

Most 100- and 200-level courses are open on a first-come, first-served basis to all students who have the prerequisites.

**Upper-Division Courses**

Admission to 300-level or above courses requires successful completion of the prerequisites.

**Major-Minor Status**

Completed change of major forms along with college transcripts must be turned in to the department when declaring computer science as a major or minor.

**Special Degree Requirements**

To locate graduation requirements in addition to those of the Computer Science Department, see "graduation requirements" in the index of this catalog.

**Bachelor of Science degree with a major in Computer Science**

A B.S. degree in computer science requires completion of the following requirements with at least a "C-" in each course (2.00 grade point average required):

**Computer Science Core Courses.** CSCI 106 (CS 121), CSCI 135-136 (CS 131-132), CSCI 232 (CS 241), CSCI 205 (CS 242), CSCI 361 (CS 281), CSCI 332 (CS 332), CSCI 323 (CS 346), CSCI 315E (CS 415E), CSCI 426 (CS 441), and CSCI 427 (CS 442).

Every major must choose either the Professional track or the Interdisciplinary track.

**Professional Track Requirements.** Eighteen credits of CSCI (CS) electives selected from courses numbered 300 and above.

**Interdisciplinary Track Requirements:**

- Six credits of CSCI (CS) electives selected from courses numbered 300 and above.
- In addition, students must complete all requirements for a minor or additional major in any field other than computer science. This minor or additional major must include at least twelve credits at the 200-level or above.

**Mathematics.** M 171-172, 221 or 325, 225 & STAT 341 (MATH 152-153, 221 or 325, 225, and 341).

**Writing/Communication.** Students must take a University approved lower-division writing course. Students must also take COMX 111A or COMX 242 (COMM 111A or COMM 242).

**Science.** Students must take one of the sequences BIOB 170N-171N, 160N (BIOL 108N-109N, 110N); CHMY 141N, 143N (CHEM 161N, 162N); or PHSX 215N/216N and PHSX 217N/218N (PHYS 211N/213N and 212N/214N).

Students also must take two additional courses selected from the following list (two numbers separated by a / means that the second number is a lab for the first and the two together only count as one course for this requirement):

- ASTR 131N/134N, ASTR 132N/135N
- BIOM 250N/251N (BIOL 106N/107N), BIOB 170N/171N (BIOL 108N/109N), BIOB 160N (BIOL 110N)
- CHMY 141N, 143N (CHEM 161N, CHEM 162N)
- FOR 201
- GEO 101N, 102N (GEOS 100N/101N), GEO 226 (GEOS 226)
- PHSX 215N/216N (PHYS 211N/213N), PHSX 217N/218N (PHYS 212N/214N), PHSX 343 (PHYS 341), PHSX 444 (PHYS 444)

NOTE: 100-level CSCI (CS) courses other than CSCI 106 (CS 121), CSCI 135-136 (CS 131-132), and 200-level CSCI (CS) courses other than CSCI 205 (CS 242) and CSCI 232 (CS 241) do not count toward the degree or track requirements. However, they do count in the 60 credit limit in the major.

**Upper-division Writing Expectation**

Upper-division Writing Expectation for Computer Science majors is CSCI 315E (CS 415E).

### **Social Science, Humanities, Arts and Other Disciplines**

Students must take 30 credits in social science, humanities, arts or disciplines other than computer science, mathematics and science. The courses taken to meet the Writing/Communication requirement can also count towards this requirement.

### **Bachelor of Science degree with a combined major in Computer Science-Mathematical Sciences**

The purpose for the combined program is to provide a thorough background in both allied disciplines and to inculcate a deeper understanding of their goals and methods. A student must complete 60 credits in the two disciplines: 30 of these credits in computer science courses and 30 of these credits in mathematical sciences courses. A minimum grade of "C-" and a 2.0 grade point average is required in all courses which follow:

**The computer science requirements are:** CSCI 106, 135-136, 205, 232, 361, 332 (CS 121, 131-132, 242, 241, 281, 332), and nine credits of CSCI (CS) electives selected from courses numbered 300 and above. A total of at most three of the nine credits of CSCI (CS) electives may be in CSCI 398 or 498 (CS 398 or 498).

**The mathematical sciences requirements are:** M 171 (or 181), 172 (or 182), 221, 273, 307 (or 225) (MATH 152, 153, 221, 251, 305 (or 225)), and twelve credits of mathematical sciences electives selected from the following list: M 311, 325, 326, 361, 362, 381, 412, 414, 429, 431, 432, 439, 440, 445, 472, 473, 485 and STAT 341, 421, 422, 451, 452 (MATH 311, 325, 326, 341, 351, 381, 382, 406, 412, 414, 421, 422, 431, 441, 442, 444, 445, 451, 452, 471, 475, 485).

The combined nine additional credits of computer science electives and twelve additional credits of mathematical sciences electives must include at least three 3- or 4-credit courses numbered 400 or above, with at least one chosen from each department (not including M 429 (MATH 406), STAT 451 and 452 (MATH 444, and 445)).

**Other requirements are:** One of the sequences BIOB 160N,170N, 171N (BIOL 110N, 108N-109N); or CHMY 141N, 143N (CHEM 161N, 162N); or PHSX 215N/216N and 217N/218N (PHYS 211N/213N and 212N/214N). In addition, a university approved lower-division writing course, and either COMX 111A or COMX 242 (COMM 111A or COMM 242).

Each student plans a program in consultation with a computer science and a mathematical sciences advisor. Students planning to attend graduate school in computer science or the mathematical sciences should consult with their respective advisors.

The upper-division writing requirement is one of the following: CSCI 315E (CS 415E), M 429 (MATH 406), any other approved General Education upper-division writing course, or a senior thesis (CSCI 499 (CS 499) or M 499 (MATH 499)).

#### **Suggested Curricula:**

**Applied Math-Scientific Programming:** M 311, 412, 414 (MATH 311, 412, 414), and one course chosen from STAT 341 (MATH 341), M 381, 473, 472, 440 (MATH 351, 451, 452, 471). Three courses chosen from CSCI 441, 444, 460, and 477 (CS 446, 486, 344 and 477).

**Combinatorics and Optimization-Artificial Intelligence:** M 361, 362 (MATH 381, 382); two courses chosen from M 325, 414, 485, and STAT 341 (MATH 325, 414, 485, 341); and CSCI 460, 446 and 447 (CS 344, 455, and 457).

**Statistics-Machine Learning:** STAT 341, 421 (MATH 341, 441), and two courses chosen from M 325, 362, 485, and STAT 422 (MATH 325, 382, 485, 442); three courses chosen from CSCI 340, 446, 447, 451, and 444 (CS 365, 455, 457, 458 and 486).

**Algebra-Analysis:** M 381, 431 (MATH 351, 421), and two courses chosen from M 326, 432, 473, 472 (MATH 326, 422, 451, 452); CSCI 460, 426 (CS 344, 441), and one other course.

#### **Suggested Course of Study for Computer Science Major**

First Year	A S
CSCI 106 (CS 121) Careers in Computer Science	1 -
CSCI 135-136 (CS 131-132) Fundamentals of Computer Science I, II	3 3

COMX 111A (COMM 111A) Introduction to Public Speaking	3 -
WRIT 101 (ENEX 101) College Writing I	- 3
M 171, 172 (MATH 152-153) Calculus I, II	4 4
Electives and General Education	3 6
Total	14 16
<b>Second Year</b>	
	<b>A S</b>
CSCI 232 (CS 241) Data Structures and Algorithms	4 -
CSCI 205 (CS 242) Programming Languages w/C/C++	- 4
CSCI 323 (CS 346) Software Science	3 -
CSCI 361 (CS 281) Computer Architecture	- 3
M 225 (MATH 225) Discrete Math I	3 -
M 221 (MATH 221) Linear Algebra	- 4
Science sequence	5 5
Total	15 16
<b>Third Year**</b>	
	<b>A S</b>
CSCI 332 (CS 332) Design/Analysis of Algorithms	- 3
CSCI (CS) track Courses and Electives*	3 6
STAT 341 (MATH 341) Introduction to Probability and Statistics	3 -
University approved lower-division writing course	- 3
Science Electives	3 3
Electives and General Education	6 -
Total	15 15
<b>Fourth Year**</b>	
	<b>A S</b>
CSCI 315E (CS 415) Computers, Ethics, and Society***	3 -
CSCI 426 (CS 441) Adv Prgrmg Theory and Practice I	3 -
CSCI 427 (CS 442) Adv Prgrmg Theory and Practice II	- 3
CSCI (CS) track courses and electives*	3 6
Electives and General Education	6 6
Total	15 15

\*Students completing the Interdisciplinary track may substitute CSCI elective courses or courses related to their Minor or Additional Major in Another field.

\*\*CSCI (CS) core courses at the 300- and 400-level may not always be offered in the sequence shown but will be offered every year.

\*\*\*Students must pass the upper-division writing proficiency assessment and a university approved lower-division writing course before taking CSCI 315E (CS 415E).

#### Requirements for a Minor

There are two minors offered by the Department of Computer Science: the traditional minor in computer science emphasizes computer programming and related skills, while the minor in computer applications emphasizes use of applications such as programming languages, word processors, spreadsheets, and data bases in the management and manipulation of electronic information.

**Computer Science:** To earn a minor in computer science the student must complete (with at least a "C-" in each course and a 2.00 grade average) 18 CS credits including:

1. CSCI 135-136 (CS 131-132) (6 credits).
2. 12 credits of elective courses chosen from CS 181, CSCI 100, 250, 232, 205, 361 (CS 101, 177, 181, 241, 242, 281) and courses numbered 300 and above with the restrictions: both CSCI 100 and 250 (CS 101 and 177) cannot be counted, and at least 6 credits of electives must be at the 300 level or above.
3. M 115 or M 121 and M 122 or M 151 (MATH 117 or Math 111 and MATH 112 or MATH 121)

**Computer Applications:** To earn a minor in computer applications, a student must complete (with at least a "C-" grade in each course and a 2.00 grade average) 21 CSCI (CS) credits including:

1. Either CSCI 100 (CS 101), CSCI 135 (CS 131) or both.
2. At least one and no more than three of CSCI 105 (CS 111), CAPP 171 (CS 171), CSCI 172 (CS 172), CSCI 250 (CS 177), and CS 181.
3. Remaining courses must be selected from CSCI 135-136 (CS 131-132), CSCI 232 (CS 241), CSCI 205 (CS 242), CSCI



444 (CS 486), other CS major courses, pre-approved CSCI 191 (CS 195), CSCI 291 (CS 295), CSCI 391 (CS 395), or CSCI 491 (CS 495) special topics courses, or up to six credits of pre-approved classes outside the department.

### **Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### **Computer Science (CSCI) - Course Descriptions**

100, 104, 105, 106, 135, 136, 172, 181, 191, 192, 198, 205, 216E, 232, 250, 291, 292, 298, 315E, 323, 332, 340, 361, 390, 391, 392, 394, 398, 411, 426, 427, 438, 441, 443, 444, 446, 447, 448, 451, 460, 466, 473, 477, 478, 490, 491, 492, 494, 498, 499, 511, 512, 521, 531, 541, 542, 548, 555, 557, 558, 565, 573, 576, 577, 578, 580, 594, 595, 596, 597, 598, 599

### **Faculty**

#### **Professors**

Ray Ford, Ph.D., University of Pittsburgh, 1980

Joel E. Henry, Ph.D., Virginia Polytechnic Institute and State University, 1993

Jesse V. Johnson, Ph.D., University of Maine, Orono, 2002

Yolanda J. Reimer, Ph.D., University of Oregon, 2002 (Chair)

#### **Associate Professor**

Min Chen, Ph.D., Florida International University, Miami, 2007

#### **Assistant Professor**

Doug Raiford, Ph.D., Wright State University, Dayton, Ohio, 2008

#### **Research Professor**

Alden H. Wright, Ph.D., University of Wisconsin, 1969

#### **Lecturer**

Mike O'Conner, M.S., University of Montana, 1996

Michael Cassens, M.S. University of Montana, 2003

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

**Christopher M. Comer, Dean**

**Jenny McNulty, Associate Dean**

**S. Melanie Hoell, Director of Advising**

Homepage: [www.cas.umt.edu](http://www.cas.umt.edu)

The College of Arts and Sciences is the intellectual core of The University of Montana. We fulfill the central purpose for which the University was chartered in 1893: To provide a liberal education and integrated knowledge of the humanities and the sciences.

A liberal arts education gives students the means to think broadly and test the value of diverse ideas, beliefs and facts. It empowers them to continue the learning process throughout life. By studying the ways of thinking and expression that are characteristic of the, humanities, and the social and natural sciences, students will be educated citizens. They are enabled to think critically about scientific methods and findings, social analysis, creativity in the arts and humanities, aesthetics and values. Equally important is effective expression of one's understandings. Clear thinking, cogent expression, and solid values provide the foundation of successful careers.

A particular strength of the College is the breadth of its disciplines and programs. This breadth makes possible a varied and flexible curriculum that advances both general programs and specialized education on the undergraduate and graduate levels. Another strength is the quality of the faculty. Its members have a distinguished record of teaching, research and creation of new knowledge, and service to our communities. Their commitment to undergraduate liberal arts education is demonstrated by the quality of the graduates the College has produced. The pre professional education received here has enabled The University of Montana graduates to compete successfully for admission to graduate schools across the nation. A third strength of the College is its commitment to students as they pursue their academic studies at the University. This is reflected in close student/faculty relationships and in the continuous attention given by the College to the effect that policies, procedures, and administrative practices have on students' educational experience.

## Biology

- Special Degree Requirements
- Suggested Course of Study
- Courses

The Division offers an undergraduate degree in biology that provides a solid foundation in core areas of the biological sciences and in supporting physical sciences and mathematics. Several options are provided within the biology degree. Options in cellular and molecular biology, ecology, organismal biology, field ecology, and human biological sciences allow specialization in biological subdisciplines and are appropriate background for certain employment opportunities and for continued graduate or professional study:

**Cellular and molecular biology:** For students interested in the cellular and molecular aspects of biology. This option is also appropriate for students interested in health-related professions.

**Ecology and organismal biology:** For students interested in the biology of organisms (plants and animals) and populations. This option is also appropriate for students interested in veterinary school.

**Field ecology:** For students interested in field-based ecology. Students with this option spend one or two summers at the Flathead Lake Biological Station.

**Genetics and evolution:** For students interest in all aspects of genetics, as well as evolutionary biology. This option is also appropriate for student interested in health-related professions.

**Human biological sciences:** Provides a strong background in the biological sciences for students interested in pursuing further study in a health sciences professional program.

**Natural history:** Designed especially for students wishing to combine basic natural history and biological sciences with another field such as art, journalism, or creative writing. Option is not suitable for students planning a traditional career in the biological sciences.

**Teacher preparation in biology, Teacher preparation in general science:** Two separate options designed for students interested in a career teaching biology or broad-field science at the secondary level.

**High School Preparation:** In addition to general University admission requirements, chemistry, mathematics through pre-calculus, and a modern foreign language are recommended.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

**Upper-Division Writing Expectation:** To meet the Upper-Division Writing Expectation for the major, biology students must take two or three partial writing courses (either three 1/3 writing courses or one 2/3 writing course plus one 1/3 writing course). Courses that are approved as 2/3 partial writing include: BCH 486 (BIOC 486), BCH 499 (BIOC 499), BIOB 411 (MICB 411), BIOB 499 (BIOL 499), BIOE 371 (BIOL 341), BIOE 342 (BIOL 342), BIOH 462 (BIOL 460), BIOM 410 (MICB 404), and BIOM

499 (MICB 499). Courses that are approved as 1/3 partial writing include: BCH 482 (BIOC 482), BIOB 410 (MICB 410), BIOB 425 (BIOL 464), BIOE 403 (BIOL 403), BIOE 406 (BIOL 406), BIOE 428 (BIOL 366), BIOL 483, BIOL 484, BIOM 402 (MICB 412), BIOO 320 (BIOL 316), BIOO 434 (BIOL 445), BIOO 470 (BIOL 304), and BIOO 475 (BIOL 306).

#### **Option in Cellular and Molecular Biology**

Forty-four to forty-nine credits in biochemistry, biology, and microbiology including BCH 480-482 (BIOC 481-482); BIOB 160N (BIOL 110N), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223), BIOB 301 (BIOL 301), BIOB 375, and BIOB 425 (BIOL 464); BIOM 360-361 (MICB 300-301); one course chosen from BIOB 410 (MICB 410) or BIOM 435 (MICB 420); one course chosen from BIOL 435, BIOB 440 (BIOL 440), BIOO 433/434 (BIOL 444/445), BIOB 468 (BIOL 468), BIOB 486, BIOL 483, BIOM 410 or 450 (MICB 404 or 450); and two lab courses chosen from BCH 486 (BIOC 486), BIOM 411 (MICB 405), BIOB 411 (MICB 411), BIOM 451 (MICB 451), or BIOM 490 (MICB 497). M 162 (MATH 150); CHMY 141N-143N, 221-222-223-224 (CHEM 161N-162N, 221-222-223-224); one course chosen from CHMY 311, 360, 373 (CHEM 341, 370, 371); PHSX 205N/206N-PHSX 207N/208N (PHYS 111N/113N, 112N/114N) are also required.

#### **Option in Ecology and Organismal Biology**

Forty-three credits in biology, biochemistry, and microbiology including BIOB 160N (BIOL 110N), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223), BIOE 370-371 (BIOL 340-341); one organismal course chosen from BIOB 301 (BIOL 301), BIOB 375, BIOB 468 (BIOL 468), BIOE 403 (BIOL 403), BIOL 435, BIOO 433/434 (BIOL 444/445); one course with a focus on a group of organisms chosen from BIOO 470 (BIOL 304), BIOO 475 (BIOL 306), BIOO 340 (BIOL 308), BIOO 320 (BIOL 316), BIOO 335 (BIOL 350), BIOM 427-428 (BIOL 400-401), BIOO 462 (BIOL 410), BIOM 423 (BIOL 418), BIOM 360-361 (MICB 300-301); one ecology course chosen from BIOE 428 (BIOL 366), BIOE 449 (BIOL 430), BIOL 442, WILD 346 (BIOE/BIOL 446), BIOE 447 (BIOL 447), BIOE 448 (BIOL 448), BIOM 415 (MICB 422), WILD 470 (WBIO 470); one evolutionary biology course chosen from BIOE 404 (BIOL 405), BIOE 406 (BIOL 406), BIOB 480 (BIOL 480), BIOB 486, BIOE 482 (BIOL 482), BIOL 483, BIOL 484. Other recommended courses include BCH 380 or 480-482 (BIOC 380 or 481-482), BIOM 430 (MICB 423).

Also required: M 162 (MATH 150) or M 171 (MATH 152); one semester of statistics STAT 216 (MATH 241) or a full year of statistics STAT 451-457;452-458 (MATH 444-447, 445-448); one year of chemistry CHMY 121N, 123N-124N (CHEM 151N, 152N-154N) or two years of chemistry CHMY 141N, 143N, 221-222, 223-224 (CHEM 161N, 162N, 221-223, 222-224); PHSX 205N/206N-PHSX 207N/208N (PHYS 111N/113N, 112N/114N).

#### **Option in Field Ecology**

Forty-three credits in biology and microbiology including BIOB 160N (BIOL 110), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223), BIOL 342 or BIOE 370-371 (BIOL 340/341). Choose FLBS courses from the Aquatic Emphasis, BIOL 451, 453, 454, 452, 492; or the Terrestrial Emphasis, BIOL 451, 458, 459, 452, 492. Choose an additional 8 credits of upper division Biology or Microbiology, with at least one from each category: course with a focus on a group of organisms from BIOO 470 (BIOL 304), BIOO 475 (BIOL 306), BIOO 340 (BIOL 308), BIOO 320 (BIOL 316), BIOO 335 (BIOL 350), BIOM 427-428 (BIOL 400-401), BIOO 462 (BIOL 410), BIOM 423 (BIOL 418), BIOM 360-361 (MICB 300/301); and an evolutionary biology course from BIOE 404 (BIOL 405), BIOE 406 (BIOL 406), BIOB 480 (BIOL 480), BIOB 486, BIOE 482 (BIOL 482), BIOL 483 or BIOL 484. One of these classes must be an Upper Division Writing course. Other required courses are M 162 (MATH 150), STAT 216 (MATH 241) or STAT 451/457 and STAT 452/458 (MATH 444/447 and MATH 445/448); CHMY 121N & 123N/124N (CHEM 151N and 152N/154N) or CHMY 141N, 143N, 221-222 and 223-224 (CHEM 161N, 162N, 221/223 and 222/224); and PHSX 205N/206N-PHSX 207N/208N (PHYS 111N/113N, 112N/114N).

Students in Track A will also spend two summers at the Flathead Lake Biological Station

#### **Option in Human Biological Sciences**

Forty-four to forty-eight credits in biology, biochemistry, and microbiology including BCH 380 or 480-482 (BIOC 380 or 480-482); BIOB 160N (BIOL 110N), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223), BIOB 301 (BIOL 301), BIOB 375, BIOH 365-370 (BIOL 312, 313). BIOM 360-361 (MICB 300-301) (or BIOM 400 (MICB 302)) and two

courses chosen from BCH 486 (BIOC 486), BIOE 403 (BIOL 403), BIOE 406 (BIOL 406), BIOL 435, 442, BIOH 462 (BIOL 460), BIOB 425 (BIOL 464), BIOB 468 (BIOL 468), BIOE 482 (BIOL 482), BIOL 483, BIOB 486, BIOB 499 (BIOL 499), BIOM 410 (MICB 404), BIOB 410 (MICB 410), BIOM 402 (MICB 412), BIOM 427/428 (BIOL 400/401), BIOM 435 (MICB 420), BIOM 450 (MICB 450).

One year of chemistry CHMY 121N, 123N-124N (CHEM 151N, 152N-154N) or two years of chemistry CHMY 141N, 143N, 221-222-223-224 (CHEM 161N, 162N, 221-223-222-224); M 162 (MATH 150), STAT 216 (MATH 241); PHSX 205N/206N-207N/208N (PHYS 111N/113N, 112N/114N); PSYX 100S (PSYC 100S) also are required.

Recommended Courses: Some graduate schools in the health professions may require additional course work, for example, in these areas: COMX 111A (COMM 111A), Introduction to Public Speaking; NUTR 221N (HHP 236N), Nutrition; HHP 377-378, Physiology of Exercise and Laboratory; SOCI 101S (SOC 110S) Principles of Sociology, PSYX 230S (PSYC 240S), Developmental Psychology; PSYX 340S (PSYC 330S), Abnormal Psychology.

### **Option in Genetics and Evolution**

Forty-four to forty-nine credits in biochemistry, biology and microbiology including BCH 380 (BIOC 380) or 480-482 (BIOC 481-482); BIOB 160N (BIOL 110N), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223), BIOB 375, BIOB 486, BIOE 370/371 (BIOL 340/341), three genetics/evolution courses chosen from: BIOB 480 (BIOL 480), BIOE 403 (BIOL 403), BIOE 406 (BIOL 406), BIOE 482 (BIOL 482), BIOL 483, BIOL 484, BIOM 410 (MICB 404), BIOM 415 (MICB 422), CSCI 451 (CS 458); one physiology course chosen from: BIOB 425 (BIOL 464), BIOL 435, BIOM 450/451 (MICB 450/451), BIOO 433/434 (BIOL 444/445). M 162 (MATH 150) or M 171 (MATH 152); STAT 216 (MATH 241) or STAT 451/457-452/458 (MATH 444/447-445/448); CHMY 121N, 123N/124N (CHMY 151N, 152N/154N) or CHMY 141N-143N, 221-222-223-224 (CHEM 161N-162N, 221-222-223-224); PHSX 205N/206N-207N/208N (PHYS 111N/113N, 112N/114N) are also required.

### **Option in Natural History**

Forty-two to forty-four credits in biology including BIOB 160N (BIOL 110N), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223), BIOO 320 (BIOL 316), BIOE 370-371 (BIOL 340-341), BIOO 335 (BIOL 350), BIOO 462 (BIOL 410); one course chosen from BIOO 470 (BIOL 304), BIOO 475 (BIOL 306), or BIOL 356; one course chosen from BIOE 404 or 406 (BIOL 405 or 406).

CHMY 121N, 123N-124N (CHEM 151N-152N, 154N) and GEO 101N-102N (GEOS 100N-101N) are required. Students also must complete at least 20 credits in cognate areas of anthropology, chemistry (excluding CHMY 121N, 123N-124N (CHEM 151N-152N, 154N)), geography, geology (excluding GEO 101N-102N (GEOS 100N-101N)), forestry, mathematics, physics/astronomy, and wildlife biology. No more than 10 credits from any one of these areas can be applied toward the 20-credit requirement. Students interested in combining this option with another subject area may, with the advisor's permission, substitute 20 credits in English-writing, journalism, photography, art, foreign language, business management, or other appropriate field.

### **Teacher Preparation in Biology (Biological Education)**

Option in Biological Education Major Teaching Field of Biology: This option is designed for students seeking an endorsement in the major teaching field of biology.

A student must complete thirty-four credits in biology and microbiology including BIOB 160N (BIOL 110N), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223), BIOE 370-371 (BIOL 340-341), BIOO 433/434 (BIOL 444/445), BIOM 360-361 (MICB 300-301) and one course chosen from BIOB 301 (BIOL 301) or BIOL 435.

M 162 or M 171 (MATH 150 or 152) and STAT 216 (MATH 241) are required; CHMY 121N-123N, 124N, 485 (CHEM 151N-152N, 154N, 485); PHSX 205N/206N (PHYS 111N/113N); EDU 497 (C&I 426); GEO 105N (GEOS 105N) or GEO 108N (GEOS 108N) also are required.

For endorsement to teach biology, a student also must gain admission to the Teacher Education Program and meet all the requirements for teaching licensure (see the College of Education section of this catalog).

Biology qualifies for a single-field endorsement. However, there is a limited demand in most Montana high schools for teachers with a single endorsement in biology and students are advised to complete the requirements for a second teaching endorsement (major or minor).

Minor Teaching Field of Biology: For an endorsement in the minor teaching field of biology, a student must complete BIOB 160N (BIOL 110N), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223); BIOM 360-361 (MICB 300-301); EDU 497 (C&I 426); GEO 105N or 108N (GEOS 105N or 108N), M 162 or 171 (MATH 150 or 152), STAT 216 (MATH 241); and CHMY 121N-123N, 485 (CHEM 151N-152N, 485). A student also must gain admission to the Teacher Education Program and must meet the requirements for teaching licensure (see the College of Education section of this catalog).

#### Teacher Preparation in General Science

Extended Major Teaching Field of General Science: A student is awarded a B.A. with a major in biology with an ecology option by completing the following 60 credits in astronomy, biology, chemistry, geology, mathematics, and physics: ASTR 131N, 134N; BIOB 160N (BIOL 110N), BIOB 170N-171N (BIOL 108N-109N), BIOB 260 (BIOL 221), BIOB 272 (BIOL 223), BIOE 370-371 (340-341); CHMY 123N, 141N-143N, 485 (CHEM 152N, 161N-162N, 485); GEO 101N-102N (GEOS 100N-101N), and either GEO 105N or 108N (GEOS 105N or 108N); M 162 or 171 (MATH 150 or 152), STAT 216 (MATH 241) and PHSX 205N/206N-PHSX 207N/208N (PHYS 111N/113N, 112N/114N). EDU 497 (C&I 426) also is required.

Highly recommended are BIOL 435, BIOM 360-361 (MICB 300-301), and CHMY 101N (CHEM 101N).

For an endorsement in the extended major teaching field of General Science, a student must gain admission to the Teacher Education Program, and meet the requirements for teaching licensure (see the College of Education section of this catalog.)

#### Suggested Course of Study

##### Biological Education Option

	<b>First Year</b>	<b>A</b>	<b>S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems	4	-	
BIOB 170N/171N (BIOL 108N/109N) Principles Biological Diversity and Laboratory	-	5	
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3	-	
CHMY 123N (CHEM 152N) Intro to Organic and Biochemistry	-	3	
CHMY 124N (CHEM 154N) Intro to Organic and Biochemistry Laboratory	-	2	
+WRIT 101 (ENEX 101) College Writing I	3	-	
+M 162 (MATH 150) Applied Calculus	4	-	
PSYX 100S (PSYC 100S) Introduction to Psychology	-	4	
Elective	-	1	
+Depends on Placement Exam	14	15	
	<b>Second Year</b>	<b>A</b>	<b>S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4	-	
BIOB 272 (BIOL 223) Genetics and Evolution	-	4	
CHMY 485 (CHEM 485) Laboratory Safety	1	-	
STAT 216 (MATH 241) Introduction to Statistics	4	-	
BIOM 360/361 (MICB 300/301) General Microbiology & Laboratory	-	5	
Lower-division writing course	-	3	
General Education/Native American Studies Course	6	3	
		15	15
	<b>Third Year</b>	<b>A</b>	<b>S</b>
BIOE 370/371 (BIOL 340/341) General Ecology and Laboratory	-	5	
PHSX 205N/206N (PHYS 111N/113N) Fundamentals of Physics I and Laboratory	5	-	
BIOO 433/434 (BIOL 444/445) Plant Physiology and Laboratory	-	4	
EDU 202 (C&I 200) Early Field Experience	1	-	
EDU 221 (C&I 303) Educational Psychology and Measurement	3	-	
EDU 370 (C&I 306) Integrating Technology into Education	3	-	
EDU 345 (C&I 410) Exceptionality and Classroom Management	3	-	
HHP 233 Health Issues of Children and Adolescents	-	3	
General Education Requirements	-	3	
		15	15
	<b>Fourth Year</b>	<b>A</b>	<b>S</b>
EDU 395 (C&I 301 or 302) Field Experience	1	-	
EDU 407E (C&I 407E) Ethics and Policy Issues	3	-	

EDU 497 (C&I 426) Methods: 5-12 Science	3 -
EDU 481 (C&I 427) Content Area Literacy	3 -
EDU 495 (C&I 482) Student Teaching: Secondary	- 14
EDU 494 (C&I 494) Professional Portfolio	- 1
BIOL 435 Comparative Animal Physiology (or BIOB 301)	3 -
GEO 108N Climate Change or GEO 105N Oceanography (GEOS 108N or GEOS 105N)	3 -
	16 15

**Cellular and Molecular Biology Option**

<b>First Year</b>		<b>A S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems		4 -
BIOB 170N/171N (BIOL 108N/109N) Principles of Biological Diversity and Laboratory		- 5
CHMY 141N, 143N (CHEM 161N, 162N) College Chemistry I, II		5 5
+WRIT 101 (ENEX 101) College Writing I		- 3
+M 162 (MATH 150) Applied Calculus		4 -
General Education		- 3
Elective		1 -
+Depends on Placement Exam		14 16
<b>Second Year</b>		<b>A S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology		4 -
BIOB 272 (BIOL 223) Genetics and Evolution		- 4
CHMY 221/222, 223/224 (CHEM 221/223, 222/224) Organic Chemistry I, II and Laboratories		5 5
BIOM 360/361 (MICB 300/301) General Microbiology and Laboratory		- 5
Lower-division writing course		3 -
General Education		3 -
Elective		- 1
		15 15
<b>Third Year</b>		<b>A S</b>
BCH 480, 482 (BIOC 481, 482) Advanced Biochemistry I, II		3 3
BIOM 410 (MICB 404) Microbial Genetics (or BIOL 435, BIOL 483, BIOB 440 (BIOL 440), BIOC 433/434 (BIOL 444/445), BIOB 468, BIOB 486, BIOM 450 (MICB 450))		- 3
BIOM 411 (MICB 405) Experimental Microbial Genetics Laboratory (or BIOB 411 (MICB 411), BIOM 451 (MICB 451), BIOM 490 (MICB 497), or BCH 486 (BIOC 486))		- 1
PHSX 205N/206N, 207N/208N (PHYS 111N/113N, 112N/114N) College Physics I, II & Labs		5 5
General Education		3 3
Electives		4 -
		15 15
<b>Fourth Year</b>		<b>A S</b>
BIOB 375 General Genetics		- 3
BIOB 301 (BIOL 301) Developmental Biology		- 3
BIOB 425 (BIOL 464) Advanced Cellular & molecular Biology		- 3
CHMY 311 (CHEM 341) Analytic Chemistry-Quantitative Analysis (or CHMY 360, 373 (CHEM 370, 371))		4 -
BIOB 410/411 (MICB 410/411) Immunology and Laboratory (or BIOM 435 (MICB 420) plus another laboratory course)		5 -
Upper-division elective		3 3
General Education		3 3
		15 15

**Ecology and Organismal Biology Option with One Year of Chemistry**

<b>First Year</b>		<b>A S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems		4 -
BIOB 170N/171N (BIOL 108N/109N) Principles of Biological Diversity and Laboratory		- 5
CHMY 121N (CHEM 151N) Introduction to General Chemistry		3 -
CHMY 123N (CHEM 152N) Introduction to Organic and Biochemistry		- 3
CHMY 124N (CHEM 154N) Introduction to Organic and Biochemistry Laboratory		- 2
+WRIT 101 (ENEX 101) College Writing I		3 -
+M 162 (MATH 150) Applied Calculus		4 -
General Education Requirement		- 3
Electives		- 3
+Depends on Placement Exam		14 16
<b>Second Year</b>		<b>A S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology		4 -
BIOB 272 (BIOL 223) Genetics and Evolution		- 4
PHSX 205N/206N, 207N/208N (PHYS 111N/113N-112N/114N) College Physics I, II & Labs		5 5
Lower-division writing course		3 -
Elective		3 -
General Education		- 6
		15 15
<b>Third Year</b>		<b>A S</b>

STAT 451/457, 452,458 (MATH 444/447, 445/448) Statistical Methods I and Comp. Lab (or STAT 216 (MATH 241))	4	4
BIOE 370-371 (BIOL 340-341) General Ecology and Laboratory	-	5
BIOO 475 (BIOL 306) Mammalogy (or BIOO 470 (BIOL 304), BIOO 340 (BIOL 308), BIOO 320 (BIOL 316), BIOO 335 (BIOL 350), BIOM 427/428 (BIOL 400/401), BIOO 462 (BIOL 410), BIOM 360/361 (MICB 300/301))	4	-
BIOM 415 Microbial Diversity, Ecology, Evolution (or WILD 346 (BIOL 446), BIOE 428 (BIOL 366), BIOE 449 (BIOL 430), BIOL 442, BIOE 447 (BIOL 447), BIOE 448 (BIOL 448), WILD 470 (WBIO 470))	-	3
General Education Requirement	3	3
Electives	3	-
	14	15

**Fourth Year**

BIOM 360/361 General Microbiology and Laboratory (or another UD biology elective)	-	5
BIOE 406 (BIOL 406) Behavior and Evolution (or BIOB 480 (BIOL 480), BIOB 486, BIOE 404 (BIOL 405), BIOE 482 (BIOL 482), BIOL 483, BIOL 484)	4	-
BIOE 403 (BIOL 403) Vertebrate Design and Evolution (or BIOB 301 (BIOL 301), BIOB 375, BIOB 468, BIOL 435, BIOO 433/434 (BIOL 444/445))	5	-
Upper-division elective	5	-
General Education Requirement	-	3
Electives	1	8
	15	16

**Ecology and Organismal Biology Option with Two Years of Chemistry****First Year**

BIOB 160N (BIOL 110N) Principles of Living Systems	4	-
BIOB 170N/171N (BIOL 108N/109N) Principles of Biological Diversity and Laboratory	-	5
CHMY 141N, 143N (CHEM 161N, 162N) College Chemistry I, II	5	5
+WRIT 101 (ENEX 101) College Writing I	3	-
+M 162 (MATH 150) Applied Calculus	4	-
STAT 216 (MATH 241) Introduction to Statistics	-	4
+Depends on Placement Exam	16	14

**Second Year**

BIOB 260 (BIOL 221) Cellular and Molecular Biology	4	-
BIOB 272 (BIOL 223) Genetics and Evolution	-	4
CHMY 221/222, 223/224 (CHEM 221/222, 223/224) Organic Chemistry I, II and Laboratories	5	5
Writing course	3	-
General Education	3	6
	15	15

**Third Year**

BCH 480,482 (BIOC 481,482) Advanced Biochemistry I and II (or another UD biology, microbiology or biochemistry elective)	3	3
BIOE 370/371 General Ecology and Laboratory	-	5
BIOE 406 (BIOL 406) Behavior and Evolution (or BIOE 404 (BIOL 405), BIOB 480 (BIOL 480), BIOE 482 (BIOL 482), BIOL 483, BIOL 484)	4	-
PHSX 205N/206N & PHSX 207N/208N (PHYS 111N/113N, 112N/114N) College Physics I, II & Labs	5	5
General Education	-	3
Elective	2	-
	14	16

**Fourth Year**

BIOL 435 Comparative Animal Physiology (or BIOB 301 (BIOL 301), BIOB 375, BIOE 403 (BIOL 403), BIOO 433/434 (BIOL 444/445), BIOB 468 (BIOL 468))	3	-
BIOE 448 (BIOL 448) Terrestrial Plant Ecology (or BIOE 428/429 (BIOL 366), BIOL 442, BIOE 449 (BIOL 430), WILD 346 (BIOL 446), BIOE 447 (BIOL 447), BIOM 415 (MICB 422), WILD 470 (WBIO 470))	4	-
BIOO 470 Ornithology (or BIOO 475 (BIOL 306), BIOO 340 (BIOL 308), BIOO 320 (BIOL 316), BIOO 335 (BIOL 350), BIOM 427/428 (BIOL 400/401), BIOO 462 (BIOL 410), BIOM 360/361 (MICB 300/301), BIOM 423 (BIOL 418))	-	4
General Education Requirement	3	3
Upper-division elective	5	8
	15	15

**Option for Teacher Preparation in General Science****First Year**

BIOB 160N (BIOL 110N) Principles of Living Systems	4	-
BIOB 170N/171N (BIOL 108N/109N) Principles of Biological Diversity and Laboratory	-	5
CHMY 141N, 143N (CHEM 161N, 162N) College Chemistry I, II	5	5
+WRIT 101 (ENEX 101) College Writing I	3	-
+M 162 (MATH 150) Applied Calculus	4	-
PSYX 100S (PSYC 100S) Introduction to Psychology	-	4
+ Depends on placement exam	16	14

**Second Year**

ASTR 131N/134N Elementary Astronomy and Laboratory	4	-
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4	-
BIOB 272 (BIOL 223) Genetics and Evolution	-	4
CHMY 123N (CHEM 152N) Introduction to Organic and Biochemistry	-	3
GEO 101N/102N (GEOL 100N/101N) Introduction to Physical Geology	-	4

STAT 216 (MATH 241) Introduction to Statistics	4 -
General Education/Native American Studies course	- 3
Lower-division writing course	3 -
Elective	- 1

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**Third Year****A S**

CHMY 485 (CHEM 485) Laboratory Safety	1 -
EDU 202 (C&I 200) Early Field Experience	- 1
EDU 221 (C&I 303) Educational Psychology and Measurement	- 3
EDU 370 (C&I 306) Integrating Technology into Education	- 3
EDU 345 (C&I 410) Exceptionality and Classroom Management	- 3
GEO 105N or 108N (GEOS 105N or 108N) Oceanography or Climate Change	3 -
PHSX 205N/206N & 207N/208N (PHYS 111N/113N, 112N/114N) College Physics I, II & Labs	5 5
General Education	6 -

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**Fourth Year****A S**

BIOE 370/371 (BIOL 340/341) General Ecology and Laboratory	5 -
EDU 395 (C&I 301 or 302) Field Experience	1 -
EDU 407E (C&I 407E) Ethics and Policy Issues	3 -
EDU 497 (C&I 426) Methods: 5-12 Science	3 -
EDU 481 (C&I 427) Content Area Literacy	3 -
HHP 233 Health Issues of Children and Adolescents	- 3
Upper-division biology writing course (suggested course: BIOC 433/434)	- 4
General Education	- 3
Electives	- 5

15 15

**Fifth Year****A S**

EDU 495 (C&I 482) Student Teaching: Secondary	14 -
EDU 494 (C&I 494) Professional Portfolio	1 -

**Field Ecology Option (Track A, two summers)****First Year****A S**

BIOB 160N (BIOL 110N) Principles of Living Systems	4 -
BIOB 170N/171N (BIOL 108N/109N) Principles of Biological Diversity and Laboratory	- 5
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3 -
+M 162 (MATH 150) Applied Calculus	4 -
+WRIT 101 (ENEX 101) College Writing I	3 -
Elective	2 -
CHMY 123N (CHEM 152N) Introduction to Organic and Biochemistry	- 3
CHMY 124N (CHEM 154N) Introduction to Organic and Biochemistry Lab	- 2
General Education Requirement	- 3
Lower Division Writing Requirement	- 3
+ Depends on placement exam	16 16

**Second Year****A S**

BIOB 260 (BIOL 221) Cellular and Molecular Biology	4 -
STAT 451/457 (MATH 444/447) Statistical Methods I/Computer Analysis	4 -
General Education Requirement	3 -
Electives	5 -
BIOB 272 (BIOL 223) Genetics and Evolution	- 4
STAT 452/458 (MATH 445/448) Statistical Methods II/Computer Analysis	- 4
General Education Requirement	- 6
Elective	- 2
	16 16

**Summer (at Biological Station)**

BIOL 342 Field Ecology	5 -
Upper Division Electives	5 -

**Third Year****A S**

BIOE 406 (BIOL 406) Behavior and Evolution (or BIOB 480 (BIOL 480), BIOB 486, BIOE 404 (BIOL 405), BIOE 482 (BIOL 482), BIOL 483, BIOL 484)	4 -
PHSX 205N/206N (PHYS 111N/113N) College Physics I & Lab	5 -
General Education Requirement	6 -
Electives	2 -
BIOC 470 (BIOL 304) Ornithology (or BIOC 320 (BIOL 316), BIOC 475 (BIOL 306), BIOC 340 (BIOL 308), BIOC 335 (BIOL 350), BIOM 427/428 (BIOL 400/401), BIOC 462 (BIOL 410), BIOM 423 (BIOL 418), BIOM 360/361 (MICB 300/301))	- 4
PHSX 207N/208N (PHYS 112N/114N) College Physics II & Lab	- 5
Electives	- 7
	17 16

**Second Summer (at Biological Station)**

BIOL 451 Landscape Ecology	3
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BIOL 458 Ecology of Forests & Grasslands	3
BIOL 459 Alpine Ecology	3
BIOL 452 Conservation Ecology	3
BIOL 492 Seminars in Ecology & Resource Management	1
	13

**Field Ecology Option (Track B one summer)**

<b>First Year</b>	<b>A S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems	4 -
BIOB 170N/171N (BIOL 108N/109N) Principles of Biological Diversity and Laboratory	- 5
CHMY 141N (CHEM 161N) College Chemistry I	5 -
+M 162 (MATH 150) Applied Calculus	4 -
Elective	1 -
CHMY 143N (CHEM 162N) College Chemistry II	- 5
+WRIT 101 (ENEX 101) College Writing I	- 3
General Education Requirement	- 3
+ Depends on placement exam	14 16

<b>Second Year</b>	<b>A S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4 -
CHMY 221/222 (CHEM 221/223) Organic Chemistry I & Lab	5 -
STAT 216 (MATH 241) Introduction to Statistics	4 -
Lower Division Writing Requirement	- 3
BIOB 272 (BIOL 223) Genetics and Evolution	- 4
CHMY 223/224 (CHEM 222/224) Organic Chemistry II & Lab	- 5
General Education	- 3
	13 15

<b>Third Year</b>	<b>A S</b>
BIOE 370/371 (BIOL 340/341) General Ecology and Lab	5 -
PHSX 205N/206N (PHYS 111N/113N) College Physics I and Lab	5
General Education	3 -
PHSX 207N/208N (PHYS 112N/114N) College Physics II and Lab	- 5
General Education Requirements	- 6
Electives	- 1
	13 12

**Summer Semester at Flathead Lake Biological Station**

BIOL 451 Landscape Ecology	3
BIOL 453 Lake Ecology	3
BIOL 454 Stream Ecology	3
BIOL 452 Conservation Ecology	3
BIOL 492 Seminar in Ecology & Res. Management	1
	13

<b>Fourth Year</b>	<b>A S</b>
BIOO 462 (BIOL 410) Entomology (or BIOO 340 (BIOL 308), BIOO 470 (BIOL 304), BIOO 475 (BIOL 306), BIOO 320 (BIOL 316), BIOO 335 (BIOL 350), BIOM 427,428 (BIOL 400-401), BIOM 423 (BIOL 418), BIOM 360-361 (MICB 300/301)	- 4
Upper Division electives	8 -
BIOE 406 (BIOL 406) Behavior and Evolution (or BIOB 480 (BIOL 480), BIOB 486, BIOE 404 (BIOL 405), BIOE 482 (BIOL 482), BIOL 483, BIOL 484)	4 -
Upper-division elective	- 5
General Education	- 3
	12 12

**Genetics and Evolution Option with One Year of Chemistry**

<b>First Year</b>	<b>A S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems	4 -
BIOB 170N/171N (BIOL 108N/109N) Principles Biological Diversity and Laboratory	- 5
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3 -
CHMY 123N/124N (CHEM 152N/154N) Introduction to Organic and Biochemistry and Laboratory	- 5
+WRIT 101 (ENEX 101) College Writing I	3 -
+M 162 (MATH 150) Applied Calculus	4 -
General Education	- 3
Elective	- 3
+ Depends on placement exam	14 16

<b>Second Year</b>	<b>A S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4 -
BIOB 272 (BIOL 223) Genetics and Evolution	- 4
PHSX 205N/206N & 207N/208N (PHYS 111N/113N-112N/114N) College Physics I,II & Labs	5 5
General Education	- 6
Lower-division writing course	3 -

Electives	3 -
	15 15
<b>Third Year</b>	
	<b>A S</b>
STAT 451/457, 452/458 (MATH 444/447, 445/448) Statistical Methods I and Comp. Lab (or STAT 216 (MATH 241))	4 4
BIOE 370-371 (BIOL 340-341) General Ecology and Laboratory	- 5
BIOE 406 Behavior and Evolution (or BIOB 480 (BIOL 480), BIOE 403 (BIOL 403), BIOE 482 (BIOL 482), BIOL 483, BIOL 484, BIOM 410 (MICB 404), BIOM 415 (MICB 422), CSCI 451)	4 -
BIOB 375 General Genetics	- 3
BCH 380 (BIOC 380) Biochemistry	4 -
General Education	3 3
	15 15
<b>Fourth Year</b>	
	<b>A S</b>
BIOB 480 (BIOL 480) Conservation Genetics (or BIOE 403 (BIOL 403), BIOE 406 (BIOL 406), BIOE 482 (BIOL 482), BIOL 483, BIOL 484, BIOM 410 (MICB 404), BIOM 415 (MICB 422), CSCI 451)	3 -
BIOH 486 Genomics	3 -
BIOL 435 Comparative Animal Physiology (or BIOB 425 (BIOL 464), BIOM 450/451 (MICB 450/451), BIOO 433/434 (BIOL 444/445))	3 -
BIOM 415 Microbial Diversity, Ecology, & Evolution (or BIOB 480 (BIOL 480), BIOE 403 (BIOL 403), BIOE 406 (BIOL 406), BIOE 482 (BIOL 482), BIOL 483, BIOL 484, BIOM 410 (MICB 404), CSCI 451)	- 3
Upper-division Elective	- 3
General Education	- 3
Electives	6 6
	15 15

**Genetics and Evolution Option with Two Years of Chemistry**

<b>First Year</b>	
	<b>A S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems	4 -
BIOB 170N/171N (BIOL 108N/109N) Principles Biological Diversity and Laboratory	- 5
CHMY 141N, 143N (CHEM 161N, 162N) College Chemistry I, II	5 5
+WRIT 101 (ENEX 101) College Writing I	3 -
+M 162 (MATH 150) Applied Calculus	4 -
STAT 216 (MATH 241) Introduction to Statistics	- 4
+ Depends on placement exam	16 14
<b>Second Year</b>	
	<b>A S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4 -
BIOB 272 (BIOL 223) Genetics and Evolution	- 4
CHMY 221/222, 223/224 (CHEM 221/222, 223/224) Organic Chemistry I, II and Laboratories	5 5
Writing course	3 -
General Education	3 6
	15 15
<b>Third Year</b>	
	<b>A S</b>
BCH 480, 482 (BIOC 481, 482) Advanced Biochemistry I and II (or another UD biology, microbiology or biochemistry elective)	3 3
BIOE 370/371 General Ecology and Laboratory	5 -
BIOE 375 General Genetics	- 3
PHSX 205N/206N & 207N/208N (PHYS 111N/113N, 112N/114N) College Physics I, II & Labs	5 5
General Education	- 3
Elective	1 1
	14 15
<b>Fourth Year</b>	
	<b>A S</b>
BIOE 486 Genomics	3 -
BIOE 403 (BIOL 403) Vertebrate Design and Evolution (or BIOB 480 (BIOL 480), BIOE 406 (BIOL 406), BIOE 482 (BIOL 482), BIOL 483, BIOL 484, BIOM 410 (MICB 404), BIOM 415 (MICB 422), CSCI 451)	5 -
BIOB 425 (BIOL 464) Advanced Cell & Molecular Biology (or BIOL 435, BIOM 450/451 (MICB 450/451), BIOO 433/434 (BIOL 444/445))	- 3
BIOL 483 Molecular Phylogenetics and Evolution (or BIOB 480 (BIOL 480), BIOE 403 (BIOL 403), BIOE 406 (BIOL 406), BIOE 482 (BIOL 482), BIOL 484, BIOM 410 (MICB 404), BIOM 415 (MICB 422), CSCI 451)	- 3
BIOE 482 (BIOL 482) Evolution and Development (or BIOB 480 (BIOL 480), BIOE 403 (BIOL 403), BIOE 406 (BIOL 406), BIOL 483, BIOL 484, BIOM 410 (MICB 404), BIOM 415 (MICB 422), CSCI 451)	- 3
General Education Requirement	3 3
Upper-division elective	4 4
	15 16

**Human Biological Sciences Option with One Year of Chemistry**

<b>First Year</b>	
	<b>A S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems	4 -
BIOB 170N/171N (BIOL 108N/109N) Principles Biological Diversity and Laboratory	- 5
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3 -
CHMY 123N/124N (CHEM 152N/154N) Introduction to Organic and Biochemistry and Laboratory	- 5
+WRIT 101 (ENEX 101) College Writing I	3 -
+M 162 (MATH 150) Applied Calculus	4 -

PSYX 100S (PSYC 100S) Introduction to Psychology	- 4
Elective	1 1
+ Depends on placement exam	15 15

**Second Year**

BIOB 260 (BIOL 221) Cellular and Molecular Biology	4 -
BIOB 272 (BIOL 223) Genetics and Evolution	- 4
PHSX 205N/206N & 207N/208N (PHYS 111N/113N-112N/114N) College Physics I,II & Labs	5 5
General Education	- 3
STAT 216 (MATH 241) Introduction to Statistics	4 -
Lower-division writing course	3 -
Electives	- 3
	16 15

**Third Year**

BIOH 365, 370 (BIOL 312, 313) Human A&P I and II for Health Professions	4 4
BIOB 301 (BIOL 301) Developmental Biology	- 3
BIOM 400 (MICB 302) Medical Microbiology (or BIOM 360/361 (MICB 300/301) General Microbiology & Lab)	3 -
BCH 380 (BIOC 380) Biochemistry	4 -
General Education	3 3
Upper-division elective	- 4
Elective	- 1
	14 15

**Fourth Year**

BIOE 403 (BIOL 403) Vertebrate Design & Evolution (or another upper-division course from list that meets the UD biology writing requirement)	5 -
BIOH 462 (BIOL 460) Principles of Medical Physiology (or another upper-division course from list that meets the UD biology writing requirement)	- 3
Upper Division Elective	3 3
General Education	3 3
Electives	4 3
	15 15

**Human Biological Sciences Option with Two Years of Chemistry****First Year**

BIOB 160N (BIOL 110N) Principles of Living Systems	4 -
BIOB 170N/171N (BIOL 108N/109N) Principles Biological Diversity and Laboratory	- 5
CHMY 141N, 143N (CHEM 161N, 162N) College Chemistry I, II	5 5
+WRIT 101 (ENEX 101) College Writing I	3 -
+M 162 (MATH 150) Applied Calculus	4 -
PSYX 100S (PSYC 100S) Introduction to Psychology	- 4
+ Depends on placement exam	16 14

**Second Year**

BIOB 260 (BIOL 221) Cellular and Molecular Biology	4 -
BIOB 272 (BIOL 223) Genetics and Evolution	- 4
CHMY 221/222, 223/224 (CHEM 221/222, 223/224) Organic Chemistry I, II and Laboratories	5 5
BIOM 360/361 (MICB 300/301) General Microbiology and Laboratory (or BIOM 400 and 2 credits of upper division elective)	- 5
Lower-division writing course	3 -
STAT 216 (MATH 241) Introduction to Statistics	4 -
	16 14

**Third Year**

BCH 480, 482 (BIOC 481, 482) Advanced Biochemistry I, II (or BCH 380 plus 2 credits of UD elective)	3 3
BIOB 301 (BIOL 301) Developmental Biology	- 3
PHSX 205N/206N-207N/208N (PHYS 111N/113N-112N/114N) College Physics I, II & Labs	5 5
Upper-division elective	3 3
Elective	1 -
General Education	3 -
	15 14

**Fourth Year**

BIOE 375 General Genetics	- 3
BIOB 425 (BIOL 464) Advanced Cellular and Molecular Biology (or another upper-division course from list that meets the UD biology writing requirement)	- 3
BIOH 365, 370 (BIOL 312, 313) Human A&P I and II for Health Professions	4 4
BIOB 410 (MICB 410) Immunology (or another upper-division course from list that meets the UD biology writing requirement)	3 -
General Education	6 6
UD Elective	2 -
	15 16

**Natural History Option****First Year****A S**

BIOB 160N (BIOL 110N) Principles of Living Systems	4 -
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BIOB 170N/171N (BIOL 108N/109N) Principles Biological Diversity and Laboratory	- 5
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3 -
CHMY 123N (CHEM 152N) Introduction to Organic and Biochemistry	- 3
CHMY 124N (CHEM 154N) Introduction to Organic and Biochemistry Laboratory	- 2
+WRIT 101 (ENEX 101) College Writing I	3 -
+M 121 (MATH 111) College Algebra	3 -
General Education	- 6
Elective	1 -
+ Depends on placement exam	14 16
<b>Second Year</b>	<b>A S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4 -
BIBO 272 (BIOL 223) Genetics and Evolution	- 4
BIOO 335 (BIOL 350) Rocky Mountain Flora	- 3
GEO 101N/102N (GEOL 100N/101N) Introduction to Physical Geology and Laboratory	4 -
Lower-division writing course	3 -
General Education	- 3
Modern/Classic Language I, II	5 5
	16 15
<b>Third Year</b>	<b>A S</b>
BIOE 370 (BIOL 340) General Ecology	- 3
BIOE 371 (BIOL 341) General Ecology Laboratory	- 2
BIOO 320 (BIOL 316) General Botany	5 -
STAT 216 (MATH 241) Statistics (cognate course and prerequisite to BIOE 371)	4 -
Cognate course	- 3
Upper-division cognate course	- 7
General Education	6 -
	14 16
<b>Fourth Year</b>	<b>A S</b>
BIOO 470 (BIOL 304) Ornithology (or BIOO 475 (BIOL 306), BIOL 356)	- 4
BIOE 406 (BIOL 406) Behavior and Evolution (or BIOE 404 (BIOL 405))	4 -
BIOO 462 (BIOL 410) Entomology	- 4
Cognate course	3 -
Upper-division electives	3 4
General Education	3 -
Electives	1 3
	14 15

#### Requirements for a Minor

To earn a minor in biology, the student must complete a minimum of 25 credits in biology including BIOB 160N (BIOL 110N), BIOB 170N/171N (BIOL 108N-109N), BIOB 260 (BIOL 221) and BIOB 272 (BIOL 223) and 8 credits in Biology at the 300-400 level. All courses must be taken for a traditional letter grade.

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### Biology (BIOL) - Course Descriptions

265, 315, 342, 343, 356, 407, 415, 435, 442, 449, 451, 452, 453, 454, 458, 459, 483, 484, 492

#### Biology (BIOB) - Course Descriptions

101N, 130N, 160N, 170N, 171N, 191, 198, 240, 260, 272, 291, 298, 301, 375, 390, 391, 398, 410, 411, 425, 440, 468, 480, 490, 486, 491, 492, 494, 495, 498, 499, 501, 510, 513, 517, 518, 519, 522, 524, 526, 530, 541, 547, 551, 561, 565, 575, 594, 595, 597, 598, 599, 699

#### Biology-Ecology (BIOE) - Course Descriptions

172n, 370, 371, 394, 403, 404, 406, 428, 447, 448, 449, 482

#### Biology-Human (BIOH) - Course Descriptions

112, 113, 291, 330, 360, 365, 370, 405, 423, 424, 456, 457, 461, 462, 463, 480, 481

**Biology-Organismal (BIOO) - Course Descriptions**

101N, 105N, 320, 335, 340, 433, 434, 462, 470, 475, 486

**Biology-Systems Ecology (BIOS) - Course Descriptions**

532, 534

**Biological Station**

**Jack A. Stanford (Bierman Professor of Ecology), Director**

The University of Montana-Missoula operates its Flathead Lake Biological Station as a year-round research facility and academic center in ecological sciences. The Station is located on 80 acres at Yellow Bay on Flathead Lake, some 85 miles north of Missoula near Kalispell and Glacier National Park. Up to 110 students can room in cabins and the G. W. Prescott dorm/apartment facility; board is provided by the station's commissary. Several large academic and office structures complement the state-of-the-art Freshwater Research Laboratory at this field campus.

During the annual 8-week summer session, formal courses are offered which emphasize field investigations of the rich flora and fauna of the diverse aquatic and terrestrial habitats found at or near the Station. Faculty from UM and other universities throughout the United States and Canada teach the field-oriented courses of the summer program. The formal courses each carry three to five semester credits for either advanced undergraduate or graduate academic programs.

A Bachelor of Arts in Biology with an Option in Field Ecology is available through the Division of Biological Sciences which requires summer courses offered at the Flathead Lake Biological Station. This Field Ecology Option requires students to take advantage of at least one summer of courses at the Biological station, while allowing additional summers of coursework to apply to degree requirements as well. The required coursework includes Landscape Ecology, Conservation Ecology and either the Aquatic Emphasis (Stream Ecology, Lake Ecology) or the Terrestrial Emphasis (Ecology of Forests and Grasslands, Alpine Ecology). Students may complete BIOE 370/371 (BIOL 340/341) General Ecology and Lab on the UM campus or take BIOL 342 Field Ecology at the Biological Station. Students who plan their academic years and summer programs carefully and who enroll for two summer sessions at the Biological Station may be able to complete degree requirements in three years.

Biological Station courses can also substitute for major program requirements in the Division of Biological Sciences and Wildlife Biology. Credits are transferable to most universities in the United States and Canada. Students must have completed introductory courses in biology, mathematics, ecology, and chemistry before enrolling in courses of the program.

Biological Station courses are offered for two or four-weeks during the eight-week session.

- BIOL 342 Field Ecology
- BIOL 343 Ecological Methods & Analysis
- BIOL 451 Landscape Ecology
- BIOL 452 Conservation Ecology
- BIOL 453 Lake Ecology
- BIOL 454 Stream Ecology
- BIOL 458 Ecology of Forests and Grasslands
- BIOL 459 Alpine Ecology
- BIOL 492 Seminar in Ecology and Resource Management
- BIOB 490 (BIOL 497) Advanced Undergraduate Research
- BIOB 499 (BIOL 499) Undergraduate (Senior) Thesis in Field Ecology
- BIOB 596 (BIOL 596) Independent Study

In addition to these summer courses, the Biological Station offers opportunities for graduate studies in aquatic biology and ecology. After formal admission to a graduate degree-granting program, research programs leading to M.S. or Ph.D. degrees can be designed by the student, academic departments at the University, and the faculty of the Station. Research assistantships are often available for students working on advanced degrees at FLBS. Numerous scholarships are also

available annually for students enrolled at UM/FLBS.

### **Enrollment Procedures**

Students interested in participating in the annual summer academic program must apply by mid-May. Application forms are available from the Biological Station website ([www.umt.edu/flbs](http://www.umt.edu/flbs)) or may be obtained in the Division of Biological Sciences office at UM.

Students interested in pursuing graduate work at FLBS should apply in writing to Graduate Admissions, Division of Biological Sciences, The University of Montana-Missoula, 32 Campus Drive #4824, Missoula, MT 59812-4824, or contact the Director.

For detailed information about academic and research opportunities at the Flathead Lake Biological Station, please visit the station web page ([www.umt.edu/flbs](http://www.umt.edu/flbs)) or contact:

Flathead Lake Biological Station

University of Montana

32125 Bio Station Lane

Polson, MT 59860-6815

Phone: (406) 982-3301

Fax: (406) 982-3201

E-Mail: [flbs@flbs.umt.edu](mailto:flbs@flbs.umt.edu)

Web Page: [www.umt.edu/flbs/](http://www.umt.edu/flbs/)

## **Division of Biological Sciences**

**Charles H. Janson, Associate Dean for the Biological Sciences**

The Division of Biological Sciences offers undergraduate and graduate programs representing the full range of the biological sciences. The Division offers bachelor degrees in Biology (with a broad array of formal options including cellular and molecular biology, ecology and organismal biology, field ecology, genetics and evolution, human biological sciences, natural history, teacher preparation in biology, and teacher preparation in general science), Medical Technology, Microbiology including microbial ecology, and Wildlife Biology (a cooperative program administered by the College of Forestry and Conservation) and Biochemistry (an interdepartmental degree administered by the Chemistry Department). The Division also advises students in pre-health sciences and offers a series of courses during the summer at the University's Flathead Lake Biological Station (see separate listing in this section). The Division is one of the leading research units in the University. Research programs in the Division provide abundant opportunities for students to enhance their educational experience by participating in mentored research. Several sources of funding are available to support undergraduate student research, and the Division participates in the University of Montana Conference on Undergraduate Research each spring.

Graduate degrees offered by the Division of Biological Sciences include Master of Science degrees in Biochemistry, Microbiology, Organismal Biology and Ecology, and Systems Ecology. Doctor of Philosophy degrees are offered in Integrative Microbiology and Biochemistry, in Organismal Biology and Ecology, and in Systems Ecology. The Division participates in the graduate (M.S. and Ph.D.) program in Wildlife Biology, administered by the College of Forestry and Conservation and in the Ph.D. program in Biochemistry, administered by the Chemistry Department. Information on graduate study and program requirements is available from the Graduate School or the Division of Biological Sciences.

The Division of Biological Sciences is committed to providing coursework and experiences for non-science majors. The world faces many problems and opportunities that include significant biological components. Courses for non-science majors have the goal of fostering understanding of the process of science and enhancing biological knowledge as it relates to environmental, medical, social, and other issues. A number of introductory courses are open both to majors and non-majors. In addition, the Division offers courses designed specifically for non-majors: Microbiology for Health Sciences, Introductory Ecology, Survey of Montana Wildlife and Habitats, and others.

Degree requirements and courses are described below (see the College of Forestry and Conservation for information about

Wildlife Biology).

## **Faculty**

### **Professors**

Fred W. Allendorf, Ph.D., University of Washington, 1975 (Regents Professor, Emeritus)

Joel Berger, Ph.D., University of Colorado, Boulder, 1978 (John J. Craighead Endowed Chair)

Ragan M. Callaway, Ph.D. University of California at Santa Barbara, 1990

Kenneth P. Dial, Ph.D., Northern Arizona University, 1984

Douglas Emlen, Ph.D., Princeton University, 1994

Kerry R. Foresman, Ph. D., University of Idaho, 1977

James E. Gannon, Ph.D., University of Houston, 1981

Willard O. Granath, Ph.D., Wake Forest University, 1982

Erick P. Greene, Ph.D., Princeton University, 1989

F. Richard Hauer, Ph.D., North Texas State University, 1980

Jesse C. Hay, Ph.D., University of Wisconsin, Madison, 1994

Walter E. Hill, Ph.D., University of Wisconsin, 1967 (Emeritus)

William E. Holben, Ph.D., University of New York, Buffalo, 1985

Richard L. Hutto, Ph.D., University of California at Los Angeles, 1977 (Director, Avian Science Center)

Charles H. Janson, Ph.D., University of Washington, 1985 (Associate Dean, DBS)

Ralph C. Judd, Ph.D., University of Montana, 1979

J. Stephen Lodmell, Ph.D., Brown University, 1996

John L. Maron, Ph.D., University of California-Davis, 1996

Michael F. Minnick, Ph.D., Washington State University, 1987

Jack H. Nunberg, Ph.D., Stanford University, 1979 (Director for the Montana Biotechnology Center)

Frank Rosenzweig, Ph.D., University of Pennsylvania, 1991

Anna Sala, Ph.D., University of Barcelona, 1992

D. Scott Samuels, Ph.D., University of Arizona, 1991

Stephen Sprang, Ph.D., University of Wisconsin, Madison, 1977 (Director, Center for Biomolecular Structure and Dynamics)

Jack A. Stanford, Ph.D., University of Utah, 1975 (Bierman Professor; Director of the Biological Station)

H. Maurice Valett, Ph.D., Arizona State University, Tempe, 1991

### **Associate Professors**

Creagh W. Breuner, Ph.D., University of Washington, 1998

Lila Fishman, Ph.D., Princeton University, 1998

Mark L. Grimes, Ph.D., University of Oregon, 1986

Winsor H. Lowe, Ph.D., Dartmouth College, 2002

Gordon Luikart, Ph.D., University of Montana, 1997

Michele A. McGuirl, Ph.D., Montana State University, 1999

Scott Miller, Ph.D., University of Oregon, 1999

Bret W. Tobalske, Ph.D., University of Montana, 1994 (Director of the Field Station at Fort Missoula)

Scott A. Wetzel, Ph.D., Oregon Health and Science University, 2001

H. Arthur Woods, Ph.D., University of Washington, 1998

#### **Assistant Professors**

Sarah J. Certel, Ph.D., The University of Iowa, 1999

Jeffrey Good, Ph.D., University of Arizona, 2007

John P. McCutcheon, Ph.D., Washington University, 2006

Brent J. Ryckman, Ph.D., The University of Iowa, 2003

Ekaterina Voronina, Ph.D., Brown University, 2003

#### **Lecturers**

Heather Davis Labbe, M.S., University of Montana, 2005

Laurie A. Minns, Ph.D., Dartmouth College, 2005

Kevin J. Murray, Ph.D., University of Nevada-Reno, 1994

#### **Research Faculty**

Jerry J. Bromenshenk, Ph.D., Montana State University, 1973

Dan Drecktrah, Ph.D., Cornell University, 1999

Bonnie Ellis, Ph.D., University of Montana, 2006

John Kimball, Ph.D., Oregon State University, 1995

Evgueny Kroll, Ph.D., Hopkins School of Medicine, USA

Penny Kukuk, Ph.D., University of Kansas, 1980

Jean-Marc Lanchy, Ph.D., University; Louis Pasteur, StrasBourg, France

Tung-Chung Mou, Ph.D., The University of Texas at Dallas, 2001

Celestine Thomas, Ph.D., Indian Institute of Science, Bangalore, India, 2001

#### **Associated Faculty**

Thomas E. Martin, Ph.D., University of Illinois, 1982



## Medical Technology

**Michael Minnick (Professor of Microbiology), Advisor**

Medical Technology or clinical laboratory sciences is a combined study of chemistry, physiology and microbiology (see <http://www.umt.edu/medtech/>). A medical technologist performs chemical, microscopic, and microbiological procedures used in the diagnosis, study and treatment of disease, under the supervision of a qualified physician or lab director. Medical technologists are in high demand in hospital labs, clinical labs, research institutions and government health departments. Although certification is required for clinical practice, individuals with a B.S. degree in Medical Technology are qualified microbiologists and can obtain positions in research labs as technicians. The degree is also an excellent foundation for students planning to attend professional schools in the health sciences or graduate school in the molecular biosciences.

Four years are required to earn a B. S. degree in Medical Technology. The curriculum is devoted to development of a sound foundation in chemistry, biology, microbiology and clinical methods. The student is also encouraged to obtain an understanding of social science and cultural subjects.

To be certified by the Board of Registry, a student, after satisfying the minimum course requirements, serves a clinical internship of at least 12 consecutive months in an approved school of medical technology endorsed by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) or American Society of Clinical Pathology (ASCP) of the American Medical Association. After completing a clinical internship and passing the Registry exam, the student receives a diploma from the Board of Registry with the professional designation of Medical Technologist M.T. ASCP.

The University of Montana has two coursework options for the medical technology degree:

**Option A** is a 4+1 curriculum in which the student completes the B.S. degree and subsequently does a one-year clinical internship if desired. Students who choose the 4+1 curriculum may do a clinical internship by applying in the fall of their senior year. Details and application forms can be obtained online at the following: <http://www.umt.edu/Medtech/>. Internship applications are typically due in the fall for enrollment the following summer.

**Option B** is a 3+1 curriculum designed to fast-track students who definitely want to become medical technologists. The first three years are completed at UM. The fourth year is applied and incorporates both classroom learning and a clinical internship at one of our affiliates (e.g. the Montana Medical Laboratory Science Training Program) in cooperation with several clinical sites located in Montana and the Midwest. Internship information is available online at <http://www.umt.edu/medtech/>. The B.S. degree and certification are granted after successful completion of the fourth year.

**High School Preparation:** In addition to the general University requirements for admission, it is recommended that high school preparation include algebra, geometry, trigonometry, chemistry, and a foreign language.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

In addition to the General Education requirements, the following courses are required for either option leading to a Bachelor of Science in Medical Technology: Thirty or more credits (300-level or above) in biology, biochemistry and microbiology including BIOM 360-361 (MICB 300/301), BIOH 405 (MICB 309), BIOB 410 (MICB 410), BIOM 402/403 (MICB 412/413), BIOM 435 (MICB 420), BCH 380 (BIOC 380); BIOB 260, 272 (BIOL 221, 223), BIOH 365 (BIOL 312), BIOM 427/428 (BIOL 400/401); CHMY 141N, 143N, 221/222 (CHEM 161N-162N, 221/223) and M 162 or 171 (MATH 150 or 152) and STAT 216 (MATH 241). The 4+1 option also requires CHMY 223/224, 311 (CHEM 222/224,341); BIOM 407-408 (MICB 406-407); and BIOB 411 (MICB 411); and PHSX 205N/206N, 207N/208N (PHYS 111N/113N, 112N/114N). The 3+1 option also requires 37 credits of BIOM 498 (MICB 490) (Med Tech Internship).

**Upper-Division Writing Expectation:** To meet the Upper-Division Writing Expectation for the major, medical technology 4+1 students take BIOB 410 (MICB 410) and BIOB 411 (MICB 411); 3+1 students take BIOB 410 (MICB 410), BIOM 402 (MICB 412), and one class chosen from: BCH 482 (BIOC 482), BIOB 411 (MICB 411), or BIOM 499 (MICB 499).

**Suggested Course of Study****Option A (4+1)**

<b>First Year</b>		<b>A</b>	<b>S</b>
CHMY 141N,143N (CHEM 161N-162N) College Chemistry I, II		5	5
+M 162 (MATH 150) Applied Calculus		4	-
+WRIT 101 (ENEX 101) College Writing I		3	-
BIOB 160N Principles of Living Systems (prerequisite for BIOB 260)		4	-
General Education		-	9
Total		16	14
+Depends on placement exam			
<b>Second Year</b>		<b>A</b>	<b>S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology		4	-
BIOB 272 (BIOL 223) Genetics and Evolution		-	4
CHMY 221/222, 223/224 (CHEM 221/222, 223/224) Organic Chemistry I, II and Laboratories		5	5
BIOM 360/361 (MICB 300/301) General Microbiology and Laboratory		-	5
Lower-Division Writing Course		3	-
General Education		3	-
Elective		-	1
Total		15	15
<b>Third Year</b>		<b>A</b>	<b>S</b>
BIOH 365 (BIOL 312) Human A&P I for Health Professions		4	-
BCH 380 (BIOC 380) Biochemistry		4	-
BIOB 410-411 (MICB 410-411) Immunology and Laboratory		5	-
BIOM 402-403 (MICB 412-413) Medical Bacteriology and Mycology and Laboratory		-	5
General Education		-	6
STAT 216 (MATH 241) Introduction to Statistics		-	4
Electives		2	-
Total		15	15
<b>Fourth Year</b>		<b>A</b>	<b>S</b>
CHMY 311 (CHEM 341) Analytical Chemistry-Quantitative Analysis		4	-
BIOM 427/428 (BIOL 400/401) General Parasitology and Lab		4	-
BIOH 405 (MICB 309) Hematology		3	-
BIOM 407/408 (MICB 406/407) Clinical Diagnosis and Laboratory		-	3
BIOM 435 (MICB 420) Virology		-	3
PHSX 205N/206N & 207N/208N (PHYS 111N/113N, 112N/114N) Fundamentals of Physics I, II and Labs		5	5
Elective		-	3
Total		16	14

**Suggested Course of Study****Option B (3+1)**

<b>First Year</b>		<b>A</b>	<b>S</b>
CHMY 141N,143N (CHEM 161N,162N) College Chemistry I, II		5	5
+WRIT 101 (ENEX 101) College Writing I		3	-
+M 162 (MATH 150) Applied Calculus		4	-
BIOB 160N Principles of Living Systems (prerequisite for BIOB 260)		4	-
General Education		-	9
Electives		-	1
Total		16	15
+Depends on placement exam			
<b>Second Year</b>		<b>A</b>	<b>S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology		4	-
BIOB 272 (BIOL 223) Genetics and Evolution		-	4
BIOH 365 (BIOL 312) Human A&P I for Health Professions		4	-
CHMY 221/222 (CHEM 221/223) Organic Chemistry I and Laboratory		5	-
BIOM 360/361 (MICB 300/301) General Microbiology and Laboratory		-	5
Lower-Division Writing Course		-	3
General Education		3	3
Total		16	15
<b>Third Year</b>		<b>A</b>	<b>S</b>
BCH 380 (BIOC 380) Biochemistry		-	4
BIOM 427/428 (BIOL 400/401) General Parasitology and Lab		4	-
BIOH 405 (MICB 309) Hematology		3	-
BIOB 410/411 (MICB 410/411) Immunology and Laboratory		5	-
BIOM 402/403 (MICB 412/413) Medical Bacteriology & Mycology and Laboratory		-	5
BIOM 435 (MICB 420) Virology		-	3

STAT 216 (MATH 241) Introduction to Statistics	4 -
General Education	- 3
Total	16 15
<b>Fourth Year - Summer</b>	<b>Su -</b>
BIOM 498 (MICB 490) Medical Technology Internship	12 -
<b>Fourth Year</b>	<b>A S</b>
BIOM 498 (MICB 490) Medical Technology Internship	13 12

## Microbiology

- ⌄ Special Degree Requirements
- ⌄ Suggested Course of Study
- ⌄ Courses

Microbiology is the study of microorganisms, including the bacteria, yeasts, molds, viruses, protozoa and other microscopic parasites. A B.S. in Microbiology is offered as a general degree or with an option in microbial ecology. The microbiology general option emphasizes microbial structure, function, and interactions and relationships with humans. The microbial ecology option emphasizes microbial structure, function, and interactions and relationships with the environment and other organisms including plants and animals.

Initial work provides the student with a working knowledge of the basic principles of the physical and biological sciences and mathematics. The remaining study is devoted to a more intense and broadened training in microbiology and allied fields, and may include independent study which offers the student an opportunity to prepare for graduate work.

### Special Degree Requirements

Refer to the graduation requirements listed previously in the catalog. See index.

In accordance with American Society for Microbiology recommendations, the following courses must be completed in addition to the General Education requirements for the Bachelor of Science in Microbiology: Thirty-two upper-division credits (300-level or above) in biology, biochemistry and microbiology including BIOE 370 (BIOL 340); BCH 380 or 480-482 (BIOC 380 or 481-482); BIOM 360/361, 410/411, 415, 450/451 (MICB 300-301, 404-405, 422, 450/451); and at least 7-9 credits chosen from the following courses (with lab if available):

BIOH 405 (MICB 309), BIOM 427/428 (MICB 400/401), BIOM 407-408 (MICB 406-407), BIOB 410-411 (MICB 410/411), BIOM 402/403 (MICB 412/413), BIOM 423 (MICB 418), BIOM 435 (MICB 420), BIOM 430 (MICB 423), BIOM 490 (MICB 497), MICB 483.

Also required: BIOB 160N, 170N/171N, 260, 272 (BIOL 110N, 108N/109N, 221, 223); M 162 (MATH 150), STAT 216 (MATH 241); CHMY 141N-143N, 221/222, 223/224, 311 (CHEM 161N-162N, 221/223, 222/224, 341); PHSX 205N/206N, 207N/208N (PHYS 111N/113N, 112N/114N).

**Microbial Ecology Option:** In addition to the General Education requirements and the Upper-Division Writing Expectation described below, the following must be completed for the Bachelor of Science in Microbiology with an option in microbial ecology: Thirty-two or more credits (300-level or above) in biology, biochemistry, microbiology including BIOE 370 (BIOL 340); BCH 380 or 480-482 (BIOC 380 or 481-482); BIOM 360/361, 410/411, 415, 450/451 (MICB 300/301, 404/405, 422, 450/451), and at least 7-9 credits chosen from the following courses (with lab if available): BIOM 427/428 (MICB 400/401), BIOB 410/411 (MICB 410/411), BIOM 423 (MICB 418), BIOM 435 (MICB 420), BIOM 430, 490 (MICB 423, 497); BIOE 371 (BIOL 341), BIOE 428 (BIOL 366), BIOB 440 (BIOL 440), BIOC 433/434 (BIOL 444/445), BIOL 453, 454.

Also required are: BIOB 160N, 170N/171N, 260, 272, (BIOL 110N, 108N/109N, 221, 223); M 162 or 171, STAT 216 (MATH 150 or 152, 241); CHMY 141N-143N, 221/222, 223/224 or CHMY 121N, 123N, 124N, (CHEM 161N-162N, 221/223, 222/224 or CHEM 151N, 152N, 154N); PHSX 205N/206N (PHYS 111N/113N). In addition, choose at least 6 credits from: CHMY 311 (CHEM 341); CSCI 135 (CS 131); ENSC 245N (FOR 210N); GEO 482, 420 (GEOS 382, 480); M 172, 273 (MATH 153, 251) and STAT 451, 452, 457, 458 (MATH 444, 445, 447, 448); PHSX 207N/208N (PHYS 112N/114N).

**Upper-Division Writing Expectation:** To meet the Upper-Division Writing Expectations for the major, Microbiology students must take BIOM 410 (MICB 404) (required), plus one more course chosen from: BCH 482 (BIOC 482), BCH 486 (BIOC 486), BIOE 428 (BIOL 366), BIOO 434 (BIOL 445), BIOB 410, 411 (MICB 410, 411), BIOM 402, or 499 (MICB 412 or 499).

### Suggested Course of Study

#### Microbiology

<b>First Year</b>		<b>A S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems		4 -
BIOB 170N/171N (BIOL 108N/109N) Principles Biological Diversity and Laboratory		- 5
CHMY 141N, 143N (CHEM 161N/162N) College Chemistry I, II		5 5
+M 162 (MATH 150) Applied Calculus		4 -
+WRIT 101 (ENEX 101) College Writing I		3 -
STAT 216 (MATH 241) Introduction to Statistics		- 4
Total		16 14
+Depends on placement exam.		
<b>Second Year</b>		<b>A S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology		4 -
BIOB 272 (BIOL 223) Genetics and Evolution		- 4
CHMY 221/222, 223/224 (CHEM 221/222, 223/224) Organic Chemistry I, II and Laboratories		5 5
BIOM 360/361 (MICB 300/301) General Microbiology and Laboratory		- 5
Lower-Division Writing Course		3 -
General Education		3 -
Elective		- 1
Total		15 15
<b>Third Year</b>		<b>A S</b>
BCH 480, 482 (BIOC 481, 482) (or 380 and two upper-division Biology or Microbiology*)		3 3
BIOB 410/411 (MICB 410/411) Immunology and Laboratory*		5 -
BIOM 415 (MICB 422) Microbial Diversity, Ecology & Evolution		- 3
PHSX 205N/206N & 207N/208N (PHYS 111N/113N & 112N/114N) College Physics I, II and Labs		5 5
General Education		- 3
Upper Division Electives		3 -
Total		16 14
<b>Fourth Year</b>		<b>A S</b>
BIOE 370 (BIOL 340) General Ecology		- 3
CHMY 311 (CHEM 341) Analytical Chemistry-Quantitative Analysis		4 -
BIOM 410/411 (MICB 404/405) Microbial Genetics and Experimental Microbial Genetics Laboratory		- 4
BIOM 435 (MICB 420) Virology*		- 3
BIOM 450/451 (MICB 450/451) Microbial Physiology and Laboratory		4 -
General Education		6 6
Total		14 16

\*Choose 7-9 credits from BIOH 405 (MICB 309), BIOM 427/428 (MICB 400/401), BIOM 407/408 (MICB 406/407), BIOB 410/411 (MICB 410/411), BIOM 402/403 (MICB 412/413), BIOM 423 (MICB 418), BIOM 435 (MICB 420), BIOM 430, 490 (MICB 423, 497).

#### Microbiology with Microbial Ecology Option

<b>First Year</b>		<b>A S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems		4 -
BIOB 170N/171N (BIOL 108N/109N) Principles Biological Diversity and Laboratory		- 5
CHMY 141N, 143N (CHEM 161N/162N) College Chemistry I, II		5 5
+M 162 (MATH 150) Applied Calculus		4 -
+WRIT 101 (ENEX 101) College Writing I		3 -
STAT 216 (MATH 241) Introduction to Statistics		- 4
Total		16 14
+Depends on placement exam.		
<b>Second Year</b>		<b>A S</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology		4 -
BIOB 272 (BIOL 223) Genetics and Evolution		- 4
CHMY 221/222, 223/224 (CHEM 221/222, 223/224) Organic Chemistry I, II and Laboratories		5 5
BIOM 360/361 (MICB 300/301) General Microbiology and Laboratory		- 5
Lower-Division Writing Course		3 -
General Education		3 -
Elective		- 1
Total		15 15

<b>Third Year</b>		<b>A</b>	<b>S</b>
BCH 480, 482 (BIOC 481, 482) (or 380 and two more upper-division Biology or Microbiology*) Advanced Biochemistry I, II		3	3
BIOE 370 (BIOL 340) General Ecology		3	-
ENSC 245N (FOR 210N) Soils+		-	3
BIOM 427/428 (MICB 400/401) General Parasitology and Laboratory		4	-
BIOM 415 (MICB 422) Microbial Diversity, Ecology, & Evolution		-	3
General Education		3	3
Upper-division elective		-	4
Elective		1	-
Total		14	16
<b>Fourth Year</b>		<b>A</b>	<b>S</b>
GEO 482 Global Change		-	3
BIOM 410/411 (MICB 404/405) Microbial Genetics and Experimental Microbial Genetics Laboratory		-	4
BIOM 430 (MICB 423) Applied and Environmental Microbiology*		-	3
BIOM 450/451 (MICB 450/451) Microbial Physiology and Laboratory		4	-
PHSX 205N/206N (PHYS 111N/113N) College Physics I and Lab		5	-
General Education		3	6
Elective		2	-
Total		14	16

\*Choose 7 credits from BIOE 371, 366 (BIOL 341, 366), BIOB 440 (BIOL 440), BIOO 433 (BIOL 444); BIOM 427/428 (MICB 400/401), BIOB 410/411 (MICB 410/411), BIOM 423 (MICB 418), BIOM 435 (MICB 420), BIOM 430, 490 (MICB 423, 497).

+Choose 6 credits from CHMY 311 (CHEM 341); CSCI 135 (CS 131); FOR 210N; GEO 301, 382, 420 (GEOS 301; 382 or 480); M 172, 273 (MATH 153, 251) Stat 451, 452, 457, 458 (MATH 444/447, 445/448); PHYS 207N/208N.

#### Requirements for a Minor

To earn a minor in microbiology, the student must complete BIOM 360/361, 410/411, 415, 450/451 (MICB 300/301, 404/405, 422, and 450/451), as well as at least three additional credits at the 300 or 400-level in Microbiology.

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### Microbiology (MICB) - Course Descriptions

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#### Biology-Microbiology (BIOM) - Course Descriptions

135N, 227, 250N, 251, 291, 360, 361, 390, 400, 402, 403, 407, 408, 410, 411, 415, 423, 427, 428, 430, 435, 450, 451, 490, 491, 494, 498, 502, 509, 520, 530, 540, 545, 546, 570, 580, 594, 595, 597, 599, 699

#### Department of Economics

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

#### Derek Kellenberg, Chairperson

The department considers its teaching goals to be three-fold: (1) To present to students the basic theoretical tools of economic analysis, relevant facts and institutional material, which will assist them as civic leaders. (2) To introduce students majoring in economics to the various special fields of study within economics. This training, along with extensive work in the other liberal arts and sciences, is intended to instill breadth of intellectual interest, critical habits of thought, a problem-solving attitude and facility of expression. (3) To help meet, through graduate work, the increasing demands for competent professional economists in industry, commerce, government and education.

Courses cover general economic theory, environmental economics, monetary theory, international economics, public finance, labor economics, economic development, comparative economic systems, econometrics, and industrial organization.

Students major in economics leading to a Bachelor of Arts degree. Graduate work leads to a Master of Arts degree in economics (see Graduate School catalog).

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

Thirty-six credits in economics must be earned. Within the 36 credits the student must include ECNS 201S, 202S, 301, 302, 403, 488, 494, 499 (ECON 111S, 112S, 311, 313, 460, 488, 487, 489), and fourteen elective economics credits numbered 300 or above. Three credits of ECNS 101S (ECON 100S) may be counted toward the additional fourteen credits of upper-division economics courses if taken before attaining junior status. A maximum of four credits of ECNS 486 and none of the ECNS 398 credits may count toward the 36-credit requirement. The following courses may be counted as part of the 36 economics credits required for the undergraduate degree: GPHY 323S, PSCI 365 (GEOG 315, PSC 365), FOR 320, FOR 425, FOR 520.

The student should take ECNS 301 and 302 (ECON 311 and 313) before the senior year.

Non-economics courses required for the undergraduate degree are: M 115 (MATH 117 ), M 162 (MATH 150) or M 171 and 172 ( MATH 152 and 153) and STAT 216 ( MATH 241) or equivalent. The student must pass WRIT 101 (ENEX 101) with a grade of "C" or above. M 115 (MATH 117) and M 162 (MATH 150) should be taken before ECNS 301. Students planning graduate study in economics should take M 171-172 (MATH 152-153) and consider M 221 ( MATH 221), M 307 (MATH 305) and ECNS 511, 513 and 560 ( ECON 511, 513, and 560).

The Upper-division Writing Expectation must be met by successfully completing the Senior Economics Thesis, ECNS 488 and 499 (ECON 488 and 489).

### Teacher Preparation in Economics

Students who want to be licensed to teach economics at the high-school level must complete the BA degree requirements in economics. They also must complete a teaching major or minor in a second field of their choice and the professional licensure program in the College of Education. Students may also earn a teaching minor in economics. See the Department of Curriculum & Instruction for information about admission to the Teacher Education Program and completion of these licensure programs.

### Suggested Course of Study

	<b>First Year</b>	<b>A</b>	<b>S</b>
ECNS 201S, 202S (ECON 111S, 112S) Principles of Micro- and Macroeconomics	3	3	
WRIT 101 (ENEX 101) Composition		3	-
M 115 (MATH 117) Probability and Linear Math		3	-
M 162 (MATH 150) Applied Calculus		-	4
Electives and General Education		6	8
		15	15
	<b>Second Year</b>	<b>A</b>	<b>S</b>
ECNS 301 (ECON 311) Intermediate Microeconomics with Calculus		3	-
ECNS 302 (ECON 313) Intermediate Macroeconomics		-	3
STAT 216 (MATH 241) Introduction to Statistics		4	-
Upper-division economics elective		-	3
Electives and General Education		8	9
		15	15
	<b>Third Year</b>	<b>A</b>	<b>S</b>
ECNS 403 (ECON 460) Introduction to Econometrics		4	-
Upper-division economics electives		3	3
Electives & General Education		8	12
		15	15
	<b>Fourth Year</b>	<b>A</b>	<b>S</b>
ECNS 488 Research Methods & Thesis Design		2	
ECNS 494 (ECON 487) Senior Seminar		-	2
ECNS 499 (ECON 489) Senior Thesis		-	2

Upper-division economics elective	3 3
Electives & General Education	10 8
	15 15

### Requirements for a Minor

To earn a minor in economics the student must complete ECNS 201S, 202S, 301, 302 (ECON 111S, 112S, 311, 313), and six additional credits of economics classes numbered 300 or above, only three of which may be in ECNS 486 (ECON 486).

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Economics (ECNS) - Course Descriptions

101S, 191, 201S, 202S, 217X, 301, 302, 310, 312, 313, 315, 320, 374, 391, 392, 398, 403, 405, 406,433, 445, 450, 486, 488, 491, 492, 494, 499, 501, 511, 513, 560, 569, 595, 596, 598, 599

### Faculty

#### Professors

Douglas Dalenberg, Ph.D., University of Oregon, 1987

#### Associate Professor

Jeffrey T. Bookwalter, Ph.D., University of Utah, 1999

Derek K. Kellenberg, Chairperson, Ph.D., University of Colorado, 2004

#### Assistant Professors

Amanda Dawsey, Ph.D., University of Maryland at College Park, 2001

Katrina Mullan, Ph.D., University of Cambridge, 2009

Helen Naughton, Ph.D., University of Oregon, 2007

Ranjan Shrestha, Ph.D., Ohio State University, 2007

Matthew P. Taylor, Ph.D., University of Oregon, 2012

#### Research Professors

Richard D. Erb, Ph.D., Stanford University, 1967

Thomas M. Power, Ph.D., (Professor Emeritus) Princeton, 1971

#### Emeritus Professors

Richard N. Barrett, Ph.D., University of Wisconsin, Madison, 1972

Ronald A. Dulaney, Ph.D., Columbia University, 1973

Dennis J. O'Donnell, Ph.D., Pennsylvania State University, 1974

John G. Photiades, Ph.D., University of Illinois, 1972

Kay Unger, Ph.D., Johns Hopkins University, 1974

### Department of English

- Special Degree Requirements
- Sample Course of Study
- Courses
- Faculty

#### John Hunt, Chair

The Department of English is among the oldest and most prestigious units at the University. As one of the campus's original departments, it offered some of the university's inaugural courses, including literature classes taught by UM's first president, Oscar J. Craig. In 1919, Rhodes Scholar H.G. Merriam inaugurated one of the first creative writing programs in the country. Now, more than a century old, this department—which has employed writers and scholars such as Richard Hugo, Leslie Fiedler, William Kittredge and Patricia Goedicke—offers a B.A. with options in multiple disciplines and graduate degrees in creative writing (M.F.A.), literature (M.A.), and teaching (M.A.). Its Composition program serves the entire university by offering the first year composition requirement, as well as courses in advanced composition and graduate seminars in the teaching of writing.

The department offers six options for English majors: 1) Literature; 2) Creative Writing; 3) English Teaching; 4) Film studies; 5) Teaching English as a Second Language; and 6) Linguistics. In addition, students may pursue a general minor in English or minors in Film Studies, English Teaching and Irish Studies.

Under the Literature option, students ground their study in the reading and examination of works through a series of historically based surveys as well as other core courses, covering the techniques of literary analysis, the application of literary theory, and finally the development of a research project in a senior capstone. Students complement these core courses with a selection of electives that engage specific genres, authors, and periods, as well as different disciplines (e.g. Literature and the Environment) and literatures of diversity (e.g. Native American Literature). M.A. students select graduate seminars in American, British, and comparative literatures as well as other disciplines, their course work culminating in a research thesis or a portfolio of seminar papers revised in collaboration with a committee. The literature emphasis imparts an understanding of not only the aesthetic richness of canonical and emerging literatures but also the historical and cultural forces that have contributed to their making. The classes are of a size that makes discussion very much a part of a student's experience.

The Creative Writing program is predicated on the model of the workshop, and focuses on three areas of study: poetry, fiction, and nonfiction. Undergraduates who select the creative writing option fulfill some of the same requirements as those in literature, while also participating in a series of small writing workshops, gaining the techniques needed to craft poetry and/or prose that work towards artistic excellence. Graduate students pursuing an M.F.A. degree complete a series of writing workshops and seminars designed to develop their creative work and expand their understanding of literary technique. The Creative Writing faculty is augmented each year by visiting Hugo and Kittredge fellows. The program sponsors the graduate literary magazine *CutBank*, now in its fourth decade of publishing works of poetry, fiction and art. Additionally, undergraduate students have the opportunity to contribute to and edit their own literary magazine, *The Oval*.

The English Teaching program provides content knowledge, pedagogy, and professional experiences required for teaching literacy in a democratic society. Based on current research and best practices, the English Teaching program integrates the study of language, literature, and media, creating learning communities and supporting teachers as critical thinkers, creative problem solvers, and reflective practitioners. Students who successfully complete this option and the requirements from the College of Education receive both a B.A. in English teaching and a secondary teaching license (grades 5-12) in English. At the graduate level, the English Teaching program offers advanced theory and pedagogy courses, culminating in an M.A. in teaching. The English Teaching Program is also the home of the Montana Writing Project, which is dedicated to improving the teaching and learning of writing at all grade levels and offers a special focus on meeting the state-mandated Indian Education for All.

In Film Studies, students receive a thorough introduction to the many facets of moving image culture, including a background in film history, theory, and aesthetics. In this interdisciplinary program, students are exposed to a broad array of national and international films, as well as filmic translations of well-known works of literature. Students analyze film from a variety of theoretical perspectives and become critical viewers of what is now one of the most predominant forms of cultural



representation. Film Studies currently offers a minor for those students who wish to learn more in this discipline without committing fully to the degree program.

In conjunction with the Linguistics Program, English also offers two options in English Linguistics: 1) General Linguistics, which provides a background in both literature and linguistics, and 2) Teaching English as a Second Language, which prepares students for the particular concerns of second-language acquisition and pedagogy while also providing a foundation in the study of literature. Please note that the Teaching English as a Second Language (ESL) major option is not a stand-alone route to licensure. For licensure requirements, refer to the College of Education section in this catalog.

The Department of English also offers an interdisciplinary minor in Irish Studies which provides students access to instruction in Irish language, history, literature, and culture. This academic and artistic approach to Irish culture involves an interdisciplinary and inter-collegiate collaboration that brings together leading scholars in the humanities and the creative arts.

Through the administration of one of the core competency requirements of the University's General Education curriculum, the Composition program serves the entire student body by ensuring that all students learn to write with clarity of thought and precision of language. Writing is understood as a skill, one that is improved by instructing students in the concerns of audience, organization, development, voice, diction, and grammar. Good writing also is related to cogent thinking, and the Composition program—through both its general education requirement and its advanced courses—seeks to integrate critical thinking within the production of skilled writing.

#### **Admission Requirements**

To be admitted to any option of the English major, a student must satisfy the following requirements:

1. Completion of 24 credits overall with a minimum cumulative GPA of 2.5 or a GPA of 2.5 in the previous two terms.
2. Completion of at least nine credits in English, excluding WRIT (composition) courses, with a minimum GPA of 2.5 and no grade lower than a C (2.00) in those courses.

Students who intend to major in English but who have not yet met the above requirements are admitted to the program as pre-English majors. Pre-English majors will be assigned to the English department Academic Advisor. Before a student can graduate with a major in English, she/he must meet the requirements to become an English major and declare a specific option within the program.

#### **Special Degree Requirements**

For University graduation requirements, please consult Academic Policy and Procedures: Degree/Certification Requirement for Graduation in this catalog.

For the Bachelor of Arts degree every major in English will complete the following requirements unless otherwise noted within the option:

1. At least 42 credits in English. Only courses under English, cross-listed with English, or labeled, in some cases, Linguistics will count toward the 42-60 credit major requirements. WRIT 101 (WTS 101, ENEX 101) does not count toward the major or minor.

Majors in English may not take any course required for the English major on a credit/no credit basis.

2. Transfer students must complete a minimum of 9 credits of advisor-approved upper-division English courses at The University of Montana to receive a B.A. with a major in English. Within the Creative Writing option, a transfer student may petition for upper-division workshop credit. Petitions will be considered on a case-by-case basis.

#### **Major Options**

English majors must take all of the courses required in one of the following options within the English major:

- **Literature:** 1) LIT 201 (ENLT 201); 2) either LIT 220L or LIT 221L (ENLT 217 or ENLT 218); 3) two of the following courses: LIT 222L, 210L, 211L, (ENLT 219, 224, 225); 4) LIT 300 (ENLT 301); 5) LIT 327 (ENLT 320); 6) LIT 494 (ENLT

401); 7) seven upper-division electives (21 credits), including one from each of the following four areas: a) Medieval through Early-Modern British literature, b) Enlightenment through Romantic British literature or pre-1665 American literature, c) Theory, d) Diversity (categories a and b may be fulfilled at the 200-level if additional substitutions are made at the 300-level so the 42 credit minimum is met; 8) two years of one modern or classical language.

• **Creative Writing:** 1) CRWR 210A, 211A, or 212A (ENCR 210A, 211A, or 212A); 2) one of the following courses: LIT 110L, 120L, 201 (ENLT 120, 121, 201); 3) three of the following courses: LIT 220L, 221L, 222L, 210L, 211L (ENLT 217, 218, 219, 224, 225); 4) LIT 300 (ENLT 301); 5) LIT 327 (ENLT 320); 6) three additional 300 or 400 level LIT (ENLT), FILM (ENFM) or ENIR courses; 7) three upper-division creative writing workshops; 8) two years of one modern or classical language. Entry into 300- and 400-level Creative Writing workshops are by consent of instructor only. Creative Writing majors must submit samples of their work to the instructors of CRWR 410, 411, and 412 by the deadline in order to be considered for the next semester's workshops. Submission guidelines are posted in the English Department in LA 133 and on the Department and Creative Writing websites.

• **English Teaching:** For an endorsement in the extended major field of English: 1) either LIT 220L or 221 (ENLT 217 or 218); 2) two of the following courses: LIT 222L, 210L, 211L (ENLT 219, 224, 225); 3) one course chosen from LIT 120L, 201 (ENLT 121, 201) or CRWR 211A (ENCR 211A); 4) LIT 300 (ENLT 301); 5) LIT 327 (ENLT 320); 6) two additional 300-level LIT courses, one of which concentrates in American literature, the other of which has a diversity focus; 7) the following English Teaching courses: ENLI 465; ENT 439, 440, 441, 442; 8) two elective courses from ENLI, CRWR (ENCR), FILM (ENFM), WRIT (above 100-level), or ENIR (above 200-level); 9) secondary school teaching licensure courses (see the College of Education). This program requires a minimum of 45 credits within the English option and 128 total credits. Students in the English Teaching option must gain admission to the College of Education, apply and be accepted to student teach and meet the requirements for licensure as a secondary teacher (see the College of Education section of this catalog for more details).

• **Film Studies:** 1) FILM (ENFM/LS 180); 2) LIT 270L (ENLT 227L); 3) FILM 300 (ENFM 330); 4) LIT 300 (ENLT 301); 5) FILM 320 (ENFM 320); 6) FILM 447 (ENFM 427); 7) two years of one modern or classical language; 8) Nine courses (27 credits) from the following electives: MAR 101L, FILM 262 (ENFM 222), FILM 363 (ENFM 338), FILM 365 (ENFM 358), SPNS 359 (SPAN 359), LIT 376/LS 356, FILM 381 (ENFM 381), FILM 448 (ENFM 443), FILM 484 (ENFM 444), PHL 427 (PHIL 444), NASX 360, ENT 442, FILM 191 (ENFM 195), FILM 291 (ENFM 295), FILM 391 (ENFM 395), FILM 491 (ENFM 495), FILM 392 (ENFM 396/496), FILM 308 (ENFM 308), FILM 327 (ENFM 327), FILM 381 (ENFM 381), FILM 481 (ENFM 481), PHL 102 (PHIL 105).

• **English Linguistics:** General Linguistics: 1) LIT 220L (ENLT 217); 2) two of the following courses: LIT 221L, 222L, 210L, 211L (ENLT 218, 219, 224, 225); 3) LIT 327 (ENLT 320); 4) either LIT 349L or 350L (ENLT 349 or 350); 5) ENLI 465; 6) LING 470, 471, 472, 473, 474, and 476; 7) LING 489; 8) either LING 477 or 478; 9) either LING 475 or 478; and 10) two years of one modern or classical language. Linguistics requires a minimum of 45 credits within English/Linguistics.

• **Teaching English as a Second Language:** 1) LIT 220L (ENLT 217); 2) two courses from LIT 221L, 222L, 210L, 211L (ENLT 218, 219, 224, 225); 3) ENT 440, and ENT 442; 4) ENLI 465; 5) LING 466, 470, 471, 472; 6) one course from LING 473, 475, 476; 7) either LING 477 or 478; 8) LING 480, 481, 491; 9) one upper division LING elective; and 10) two years of the same, spoken modern or classical language. Teaching ESL requires a minimum of 46 credits within English/Linguistics. Students in the English Teaching option must gain admission to the College of Education, apply and be accepted to student teach and meet the requirements for licensure as a secondary teacher (see the College of Education section of this catalog for more details). Please note that the Teaching ESL major option is not a stand-alone route to licensure.

## Minor requirements

### General Minor in English

A minor in English requires at least nine courses (27 credits) in English excluding WRIT 101 (ENEX 101), which must include 1) four courses chosen from LIT 110L, 120L, 201, 220L, 221L, 222L, 210L, 211L (ENLT 120, 121, 201, 217, 218, 219, 224, 225); 2) LIT 300 (ENLT 301); 3) LIT 327 (ENLT 320). Remaining credits must be LIT (ENLT), FILM (ENFM), CRWR (ENCR), ENLI or ENIR courses numbered 300 or higher.

### Minor Teaching Field of English

For an endorsement or minor in the minor teaching field of English, a student must complete 1) either LIT 220L or 221L (ENLT 217 or 218); 2) two of the following courses: LIT 222L, 210L, or 211L (ENLT 219, ENLT 224, or ENLT 225); 3) LIT 300 (ENLT 301); 4) LIT 327 (ENLT 320); 5) two additional 300 or 400 level LIT courses, one of which concentrates in American literature, one with a diversity focus; 6) the following English Teaching courses: LING 465 (ENLI 465); ENT 439; ENT 440; ENT 441; ENT 442; and 7) secondary school teaching licensure courses. Students in the minor English Teaching option must gain admission to Teacher Education program, apply and be accepted to student teach, and meet the requirements for licensure as a secondary teacher. (See the College of Education section of this catalog). Students must complete a teaching major in another discipline in order to teach 5-12th grade in Montana. The English Teaching minor is not a stand-alone route to licensure.

#### Minor in Irish Studies

For a minor in the field of Irish Studies, a student must complete at least six courses (18 credits), including four required core courses, and two elective courses. A student must complete 1) ENIR/IRSH 101; 2) ENIR/IRSH 102; 3) HSTR250 (HIST 249)/ENIR 249; and 4) One of the following: ENIR 360, Irish and/or Northern Irish Literature (in English), LIT 391/ENIR 395 (ENLT/ENIR 395) Special Topics in Irish Literature and Culture, ENIR 380 Literature of Pre-Norman Ireland, or ENIR 345 Intro to Irish Gaelic Literature. A student wishing to take the Irish Studies Minor must contact the Director of Irish Studies and complete the requisite paperwork.

#### Minor in Film Studies

A minor in film studies requires at least 27 credits including 4 required courses and at least 5 elective courses. Requirements: 1) FILM 103 (ENFM 180); 2) LIT 270; 3) FILM 300 (ENFM 330); 4) FILM 447 (ENFM 427). For remaining credits, students must choose at least five of the following electives. Two of these courses must be 300 level or above. Selections include the following: MAR 101L, FILM 262 (ENFM 222), FILM 363 (ENFM 338), FILM 365 (ENFM 358), SPNS 359 (SPAN 359), LIT 376/LS 356, FILM 381 (ENFM 381), FILM 448 (ENFM 443), FILM 484 (ENFM 444), PHL 427 (PHIL 444), NASX 360, ENT 442, FILM 191 (ENFM 195), FILM 291 (ENFM 295), FILM 391 (ENFM 395), FILM 491 (ENFM 495), FILM 492 (ENFM 396/496), FILM 308 (ENFM 308), FILM 327 (ENFM 327), FILM 381 (ENFM 381), FILM 481 (ENFM 481), PHL 102 (PHIL 105), PHIL 340L (PHL 327).

#### Sample Courses of Study

##### Literature

	<b>First Year</b>	<b>A S</b>
WRIT 101 (ENEX 101) Composition (Last name A-L in autumn; M-Z in spring)	3	(3)
LIT 201 (ENLT 201L) Intro to Literary Studies	3	-
LIT 220L or 221L (ENLST 217L, 218L) Brit Lit: Medieval to Renaissance, Brit Lit: Enlightenment to Romantic	-	3
Modern or Classical language	5	5
Electives or General Education	4	7
	15	15
	<b>Second Year</b>	<b>A S</b>
LIT 222L, 210L, 211L (ENLT, 219:, 224:, 225L) Brit Lit Victorian to Contemp, American Lit I or American Lit II	3	-
LIT 222L, 210L, 211L (ENLT 219L, 224L, 225L) Brit Lit Victorian to Contemp, American Lit I or American Lit II	3	-
LIT 300 (ENLT 301) Literary Criticism	-	3
Modern or Classical language	4	4
Electives or General Education	5	8
	15	15
	<b>Third Year</b>	<b>A S</b>
LIT 327 (ENLT 320) Shakespeare	3	-
English Electives and General Education	12	15
	15	15
	<b>Fourth Year</b>	<b>A S</b>
LIT 494 (ENLT 401) Capstone Seminar	-	3
English Electives and General Education	15	12
	15	15

##### Creative Writing Option

	<b>First Year</b>	<b>A S</b>
WRIT 101 (ENEX 101) Composition (Last name A-L in autumn; M-Z in spring)	3	(3)

CRWR 210A, 211A, or 212A (ENCR 210A, 211A or 212A) Introduction Workshops	(3) 3
LIT 110L, 201, or 120L	3 -
LIT 200-Level British Literature course: LIT 220L, 221L, 222L (ENLT 217, 218, 219)	- 3
Modern or Classical language	5 5
Electives or General Education	4 4
	15 15

**Second Year****A S**

LIT 222L, 210L, 211L (ENLT, 219L, 224L, 225L) Brit Lit Victorian to Contemp, American Lit I or American Lit II	3 -
LIT 222L, 210L, 211L (ENLT 219L, 224L, 225L) Brit Lit Victorian to Contemp, American Lit I or American Lit II	3 -
LIT 300 (ENLT 301) Literary Criticism	- 3
Modern or Classical language	4 4
Electives (another CRWR 210A, 211A, or 212A Introduction Workshop recommended) or General Education	5 8
	15 15

**Third Year****A S**

CRWR 310 or 311 or 312A (ENCR 310 or 311 or 312A) Intermediate Workshops	(3) (3)
LIT 327 (ENLT 320) Shakespeare	3 -
LIT/FILM (ENFM)/ENIR 300- or 400-level course	3 3
Electives and General Education	9 9
	15 15

**Fourth Year****A S**

CRWR 310 or 311 or 312A (ENCR 310 or 311 or 312A) Intermediate Workshops	3 -
CRWR 410, 411, or 412 (ENCR 410, 411, or 412) Advanced Workshops	- 3
LIT/FILM (ENFM)/ENIR 300- or 400-level course	3 -
Electives and General Education	9 12
	15 15

**English Teaching Option****First Year****A S**

WRIT 101 (ENEX 101) Composition (Last name A-L in autumn; M-Z in spring)	3 (3)
One of LIT 120L, 201 (ENLT 121L, 201) or CRWR 211A (ENCR 211A) Intro Poetry Workshop	3 -
LIT 220L or 221L (ENLT 217L or 218L) British Literature	3 -
LIT 210L or 211L (ENLT 224L or 225) American Literature	- 3
General Education and pre-licensure requirements (refer to College of Education)	9 9
	15 15

**Second Year****A S**

LIT 222L, 210L, 211L (ENLT 219L, 224L, 225L) Brit Lit Victorian to Contemp, American Lit I or American Lit II	3 -
LIT 300 (ENLT 301) Applied Literary Criticism	3 -
LIT 327 (ENLT 320) Shakespeare	- 3
English elective (LIT/FILM/CRWR/ENIR/LING/WRIT) (above 100-level for WRIT)	- 3
General Education and pre-licensure requirements (refer to College of Education)	9 9
	15 15

**Third Year****A S**

One 300 or 400-level LIT course concentrating in American literature	3 -
One 300 or 400-level LIT course with diversity focus	3 -
ENT 439 Studies in Young Adult Literature	3 -
ENLI 465 Structure and History of English for Teachers	- 3
ENT 440 Teaching Writing	- 3
English elective: LIT/FILM/CRWR/ENIR/LING/WRIT (above 100-level for WRIT)	- 3
General Education and licensure requirements	9 8
	18 17

**Fourth Year****A S**

ENT 441 Teaching Reading and Literature	3 -
ENT 442 Teaching Oral Language & Media Literacy	3 -
General Education and licensure requirements	12 -
Certification requirement of EDU 495 (C&I 489) Student Teaching: Secondary	- 14
Certification requirement of EDU 494 (C&I 494) Professional Portfolio	- 1
	18 15

**Film Option****First Year****A S**

WRIT 101 (ENEX 101) Composition (Last name A-L in autumn; M-Z in spring)	3 (3)
FILM 103 (ENFM 180) Introduction to Film	3 -
LIT 270L (ENLT 227L) Film as Literature, Literature as Film	- 3
Modern or Classical language	5 5
Electives/General Education	4 (7) 4

	15	15
<b>Second Year</b>	<b>A</b>	<b>S</b>
FILM 300 (ENFM 330) History of Film	3	-
FILM elective	3	3
Modern or Classical language	4	4
Electives/General Education	5	8
	15	15
<b>Third Year</b>	<b>A</b>	<b>S</b>
One 300- or 400-level FILM elective	3	-
LIT 300 (ENLT 301) Applied Literary Criticism	3	-
FILM 320 (ENFM 320) Shakespeare and Film	-	3
FILM electives/General Education	9	9
LIT 376 (ENLT 325) Studies in Literature and Film	-	3
	15	15
<b>Fourth Year</b>	<b>A</b>	<b>S</b>
FILM 447 (ENFM 427) Film Theory	-	3
Selections from Approved Film Offerings (upper-division FILM courses)	6	3
Electives/General Education	9	9
	15	15

**Linguistics Option (General Linguistics)**

<b>First Year</b>	<b>A</b>	<b>S</b>
WRIT 101 (ENEX 101) Composition (Last name A-L in autumn; M-Z in spring)	3	(3)
LIT 220 (ENLT 217L) British Literature	3	-
LIT 221L, 222L, 210L, 211L (ENLT 218L, 219L, 224L or 225L) (British or American Literature)	-	3
Modern or Classical language	5	5
General Education	4(7)	7
	15	15
<b>Second Year</b>	<b>A</b>	<b>S</b>
LIT 221L, 222L, 210L, 211L (ENLT 218L, 219L, 224L or 225L) (British or American Literature)	3	-
LIT 327 (ENLT 320) Shakespeare	-	3
LING 470 Introduction to Linguistic Analysis	-	3
Modern or Classical language	4	4
General Education	8	5
	15	15
<b>Third Year</b>	<b>A</b>	<b>S</b>
ENLI 465 Structure and History of English for Teachers	-	3
LIT 349L (ENLT 349L) Studies in Medieval Literature or LIT 350 (ENLT 350L) Chaucer	-	3
LING 472 Generative Syntax	3	-
LING 474 Historical Linguistics	3	-
LING 471 Phonetics and Phonology	3	-
Electives and General Education	6	9
	15	15
<b>Fourth Year</b>	<b>A</b>	<b>S</b>
LING 473S Language and Culture or 475 Linguistic Field Methods	3	-
LING 475 Linguistic Field Methods	-	3
LING 476 Child Language Acquisition	-	3
LING 477 Bilingualism (A) or 478 Second Language Development (S)	3	3
LING 489 Morphology	-	3
Electives	9(12)	6
	15	15

**Linguistics Option (Teaching ESL)**

<b>First Year</b>	<b>A</b>	<b>S</b>
WRIT 101 (ENEX 101) Composition (Last name A-L in autumn; M-Z in spring)	3	(3)
LIT 221L, 222L, 210L, 211L (ENLT 218L, 219L, 224L or 225L) (British or American Literature)	(3)	3
Modern or Classical language	5	5
General Education	4	4
	15	15
<b>Second Year</b>	<b>A</b>	<b>S</b>
LIT 220L (ENLT 217L) British Literature	3	-
LIT 221L, 222L, 210L, 211L (ENLT 218L, 219L, 224L or 225L) (British or American Literature)	-	3
LING 470 Introduction to Linguistic Analysis	-	3
Modern or Classical language	4	4
General Education	8	5
	15	15
<b>Third Year</b>	<b>A</b>	<b>S</b>

ENLI 465 Structure and History of English for Teachers	-	3
LING 471 Phonetics and Morphology	3	-
LING 472 Generative Syntax	3	-
LING 477 Bilingualism (A) or 478 Second Language Acquisition (S)	3	(3)
LING 480 Teaching English as a Foreign Language	-	3
Linguistics upper-division elective	-	3
Electives and General Education	6	6
	15	15
<b>Fourth Year</b>	<b>A</b>	<b>S</b>
ENT 440 Teaching Writing	3	-
ENT 442 Teaching Oral Language and Media Literacy	-	3
LING 466 Pedagogical Grammar	3	-
LING 473 Language and Culture (A), 475 Linguistic Field Methods (S) or 476 Child Language Acquisition (S)	3	(3)
LING 481 ESL Professional	-	3
LING 491 ESL Practicum	-	1
Electives	6(9)	85
	15	15

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### English As a Second Language (EASL) - Course Descriptions

195, 250, 251, 450, 451

#### Composition (WRIT) - Course Descriptions

101, 191, 198, 201, 391, 398, 491, 492, 540, 595, 596,

#### Creative Writing (CRWR) - Course Descriptions

110L, 195, 210A, 212A, 310, 311, 312A, 320, 322, 390, 395, 398, 410, 411, 412, 495, 496, 510, 511, 512, 513, 514, 515, 516, 595, 596, 599

#### Creative Writing (ENCR) - Course Descriptions

210A, 211A

#### Film (FILM) - Course Descriptions

103L, 191, 262L, 291, 300, 308, 320, 327, 363, 365, 381, 391, 447, 448, 484, 481, 491, 492

#### English Teaching (ENT) - Course Descriptions

English teaching courses, due to their strictly-enforced pre- and co-requisites, may only count as electives for the Literature, Film Studies, and Creative Writing major options.

395, 398, 439, 440, 441, 442, 495, 496, 542, 543, 544, 545, 546, 547, 548, 550, 551, 552, 553, 556, 557, 593, 595, 596, 598

#### Literature (LIT) - Course Descriptions

110L, 120L, 191, 201, 210L, 211L, 220L, 221L, 222L, 270L, 300, 301, 304, 305, 314, 315, 316, 327, 331, 332, 335, 342L, 343, 349L, 350L, 351, 353, 355, 357, 358, 362, 363, 369, 370, 373, 375, 376, 378L, 391, 398, 420, 421, 429, 430, 491, 492, 494, 499, 500, 520, 521, 522, 524, 595, 596, 598, 599

#### Irish Studies (ENIR) - Course Descriptions

101, 102, 103, 201, 202, 249, 321, 325, 345, 360, 380, 395, 430

#### Faculty

**Professors**

Robert Baker, Ph.D., Cornell University, 1997

Jill Bergman, Ph.D., University of Illinois, 1999

Heather Bruce, Ph.D., University of Utah, 1997

Kevin Canty, M.F.A., University of Arizona, 1993

Casey Charles, Ph.D., State University of New York, Buffalo, 1992

Beverly Ann Chin, Ph.D., University of Oregon, 1973

Debra Magpie Earling, M.F.A., Cornell University, 1991

John Glendening, Ph.D., Indiana University, 1992

Brady Harrison, Ph.D., University of Illinois, 1994

John Hunt, Ph.D., Stanford University, 1984 (Chair)

Christopher J. Knight, Ph.D., New York University, 1982

Deirdre McNamer, M.F.A., The University of Montana, 1987

David L Moore, Ph.D., University of Washington, 1994

Greg Pape, M.F.A., University of Arizona, 1974

Karen Volkman, M.F.A., Syracuse University, 1992

**Associate Professors**

Judy Blunt, M.F.A., The University of Montana, 1994

Nancy Cook, Ph.D., State University of New York, Buffalo, 1991

Louise Economides, Ph.D., Indiana University, 2003

Kathleen M. Kane, Ph.D., University of Texas, 1997

Ashby Kinch, Ph.D., University of Michigan, 2000 (Associate Chair)

Joanna Klink, Ph.D., The John Hopkins University, 2000

Eric Reimer, Ph.D., University of Oregon, 2002

Prageeta Sharma, M.F.A., Brown University, 1995

**Assistant Professors**

Rob Browning, Ph.D., Indiana University, 2004 (visiting)

Quan Manh Ha, Ph.D., Texas Tech University, 2011

David Gates, B.A., University of Connecticut, 1972

**Lecturers**

David Gilcrest, Ph.D., University of Oregon, 1996

Sean O'Brien, Ph.D., University of Colorado, 1989

Traolach O'Riordain, Ph.D., National University of Ireland, Co. Cork, Ireland, 1994

Robert Stubblefield, M.F.A., University of Montana, 1994

#### **Emeritus Professors**

Richard R. Adler, Ph.D., University of Illinois, 1971

William Bevis, Ph.D., University of California, Berkeley, 1969

Jesse Bier, Ph.D., Princeton University, 1956

Bruce Bigley, Ph.D., Yale University, 1972

Gerry Brenner, Ph.D., University of Washington, 1965

Walter L. Brown, Ph.D., University of California

Merrel D. Clubb, Jr., Ph.D., University of Michigan, 1953

Phil Fandozzi, Ph.D., University of Hawaii, 1974

Earl Ganz, Ph.D., University of Utah, 1977

Robert B. Hausmann, Ph.D., University of Wisconsin, 1972

Walter N. King, Yale University, 1952

William Kittredge, M.F.A., University of Iowa, 1969

Michael W. McClintock, Ph.D., Cornell University, 1970

Jocelyn Siler, M.F.A., The University of Montana, 1977

Lois Welch, Ph.D., Occidental College, 1966

#### **Emeritus Associate Professors**

Robert B. Johnstone, Ph.D., University of Washington, 1970

Dexter Roberts, Ph.D. Stanford University, 1966

Veronica J. Stewart, Ph.D., State University of New York, Stony Brook, 1990

## **Environmental Studies**

- ◌ Special Degree Requirements
- ◌ Suggested Course of Study
- ◌ Courses
- ◌ Faculty

#### **Phil Condon, Director**

The Environmental Studies Program (EVST) seeks to provide students with the literacy, skills and commitment needed to foster a healthy natural environment and to create a more sustainable, equitable, and peaceful world. To these ends, the EVST program educates and challenges students to become knowledgeable, motivated, and engaged in environmental affairs. We want our students to acquire the skills and awareness that will enable them to promote positive social change and to improve the environment and communities of Montana and thereby the lives of all Montanans. Our program is organized upon the following principles:



- -Environmental studies require an interdisciplinary approach that integrates the natural sciences, social sciences, and humanities.
- -Creating solutions to environmental problems requires enterprise and performance as well as reflection; therefore, an effective environmental education generates thinkers who can do as well as doers who can think.
- -It is important to provide both classroom and experiential learning opportunities in the arts and responsibilities of democratic citizenship, including communication, collaboration, and committed civic participation.
- -Students should be co-creators of their educational experience.

**High School Preparation:** Students in high school who are planning to major in environmental studies should take their schools' college preparatory curriculum. Courses in biology, chemistry, math through pre-calculus, and writing are recommended.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog (see index). For the Bachelor of Arts degree, every major in environmental studies will complete the following requirements:

**Environmental Studies:** ENSC 105N (EVST 101N), ENST 230H, 201, 225, ENSC 360, ENST 398 (EVST 167H, 201, 225, 360, 398), one of the following two courses: ENST 382 or 367 (EVST 302 or 367), one of the following two courses: ENST 335 L or 430 (EVST 305L or 430), one of the following two courses: ENST 489S or 487 (EVST 477S or 487), and at least 9 credits selected from 300 and/or 400 level courses offered by Environmental Studies (of which no more than 3 credits may be from EVST 382, 383 or PTRM 418 (EVST 418) or ENST 395 in the current catalog).

**Required courses outside Environmental Studies:** BIOB 101N or BIOB 160N or BIOB 170N (BIOL 100N or 110N or 108N); CHMY 121N (CHEM 151N); STAT 216 (MATH 241), and one, 3 credit NAS course from among the following: NASX 105H, 231X, 303E, 304E, 354X, 340, 306X, or 488 (NAS 100H, 231, 303E, 301E, 324X, 329, 341, or 410) or NASX 201X, 235X (NASL 201X, 202L (NAS 201H, 202)), a two semester foreign language sequence, and one additional environmental science course from among the following: EARTH 303N/GPHY 322N, GEO 108N (GEOS 108N) (provided it was not used to satisfy the first requirement listed above), BIOB 170N, BIOC 335 (BIOL 108N, BIOL 350), NRSM 265 or 385 (FOR 265 or FOR 385). The Upper-division Writing Expectation must be met by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog. See index.

### Focus Areas of Study for Undergraduates

All Focus Areas of Study require the completion of the general requirements of the EVST major. In addition, each Focus Area has additional special requirements below.

#### Sustainability Studies:

Sustainability is a major organizing theme within Environmental Studies. Students focusing on this area will increase their understanding of our earth's limited capacity to support all forms of life and to provide for the needs of human society.

Students will learn how to reduce our demands on the earth through increased resource efficiency and choosing simpler but more joyful lifestyles. Students have the opportunity to identify and develop more sustainable means of providing food, shelter, mobility and other necessities by working and innovating in the local community. Students complete 20 credits of advisor-approved courses and/or internships and may further focus their studies in these areas.

**Sustainable Business:** Students focus on creating and maintaining enterprises that meet social needs sustainably. Students should take ENST 291 (EVST 210) or TASK 160S (BUS 160S); ACTG 201 & 202 (ACCT 201 & 202); MIS 257 (IS 257); ENST 476 or 487 (EVST 485 or 487); COMX 349 (COMM 379); BMGT 357 (MGMT 457). Students should also intern with a local sustainable business or the Sustainable Business Council. Students interested in this focus area are encouraged to double major in Business Management and in addition to the core Business courses take some of these courses: BMGT 430, 426, 458 (MGMT 430, 446, 458). Faculty Advisor - Vicki Watson

**Sustainable Energy:** Students interested in sustainable energy should take ENST 204, 291, 480, and 494, (EVST 204, 210, 450, 460 and 470) and the energy related courses offered by the College of Technology. Students should arrange an

energy related internship. Also recommended are ECNS 201S, 433 (ECON 111S, 440). Faculty advisors - Len Broberg and Josh Slotnick

**Sustainable Food and Farming:** Students focus on creating and maintaining sustainable food systems. Students must complete 6 supervised internship credits in the Program in Ecological Agriculture and Society (PEAS, ENST 396 (EVST 390)); ENST 430 and 480 (EVST 430 and 450). In addition, students must complete 9 more credits of advisor-approved courses or internships. These could include courses such as: ENSC 245N, (FOR 210N), ANSC 262 (FOR 362), NRSM 424 (FOR 424); NUTR 221N (HHP 236N); PHAR 324; ANTY 133H (ANTH 103H); GPHY 434 (GEOG 434). Faculty advisors Neva Hassanein and Josh Slotnick.

**Sustaining Water Resources & Watersheds:** Students focus on sustainable use of water resources and watersheds. Students must complete 20 credits of advisor-approved courses or internships. These could include courses such as BIOC 340, BIOE 428, BIOC 409, (BIOL 308, 366, 408)BIOL 415, BIOL 453, 454; CHMY 442 (CHEM 442); GPHY 335 (GEOG 335); GEO 260, 301, 320, 327, 460, 420 (GEOS 260, 301, 320, 327, 460, 480); ENSC 245N (FOR 210N), NRSM 385 & 386, 415, 455, 485 (FOR 385 & 386, 415, 455, 485). (Note: Some of these courses require prerequisites not in the environmental studies core requirements.) Students can also work with the UM Watershed Health Clinic. Faculty advisor - Vicki Watson

**Environmental Justice:** With this focus area students will develop the capacity for thoughtful active participation in the quest for environmental and social justice. Students gain in-depth understandings of a wide range of environmental injustices and the role of race, class, and gender in shaping quality of life, enjoyment of environmental amenities and access to natural resources both domestically and internationally. Students learn about the ways that business, government, financial institutions, and the labor and environmental movements can work toward a more just and sustainable society. Students must complete 21 credits including the following: ENST 489S, 487 (EVST 477S, 487), a 3 credit internship ENST 398 (EVST 398) and 12 credits of advisor-approved electives (contact Robin Saha for a list of recommended courses). Faculty advisors - Robin Saha and Dan Spencer.

**Environmental Science:** Students will develop sufficient science literacy to qualify as environmental scientists. Students should double major or minor in one of the scientific disciplines on campus and/or consult with the EVST science advisor to design a course of study that includes at least 40 credits in science & math. Faculty advisor - Vicki Watson.

**Environmental Writing and Literature:** Students focus on the careful reading of American Nature & Environmental Nonfiction Writing and the creative writing of their own work in the field. Students must complete ENST 335L and 373A (EVST 305L, 373A); at least one 3 credit course at the 200-level or above in CRWR (ENCR) or LIT or JRNL (JOUR); at least either one internship credit (*Camas* magazine, the Environmental Writing Institute, *Wild Mercy* Reading Series, or some other environmental publication); or one independent study credit ENST 492 (EVST 496), arranged with instructor in either original nature writing or in nature literature study. Faculty advisor - Phil Condon

**Environmental Pre-Law:** The Pre-Law focus area of study is designed to prepare students for law school and a career in environmentally oriented legal and policy matters. Students focusing on environmental law must consult with the pre-law faculty advisor within environmental studies (Len Broberg) to design a suitable pre-law program. The pre-law focus area is a flexible program that allows students to strengthen their background within their area of interest. Faculty advisor - Len Broberg

#### Suggested Course of Study

	First Year	A	S
BIOB 101N (BIOL 100N) Discover Biology		3	-
WRIT 101 (ENEX 101) Composition		(3)	(3)
ENSC 105N (EVST 101N) Environmental Science		3	-
ENST 230H (EVST 167H) Nature and Society		-	3
M 115 (MATH 117) Probability and Linear Mathematics		-	3
NASX 105H (NAS 100H) Introduction to Native American Studies		3	-
Elective and General Education		4-7	7-10
Total		16	16
	Second Year	A	S
CHMY 121N (CHEM 151N) Intro to General Chemistry		3	-

ENST 201 (EVST 201) Environmental Information Resources	-	3
ENST 225 (EVST 225) Community and Environment	3	-
STAT 216 (MATH 241) Intro to Statistics	4	-
Foreign Language sequence	3-5	3-5
Electives, additional Environmental Science or Studies courses and/or General Education	-	7
Total	15	15
<b>Third Year</b>		
	<b>A</b>	<b>S</b>
ENST 367 (EVST 367) Env. Politics & Policy (or ENST 382 (EVST 302) Environmental Law)	(3)	(3)
ENSC 360 (EVST 360) Applied Ecology	3	-
ENST 335L (EVST 305L) The Environmental Vision (or ENST 430 (EVST 430) Culture & Agriculture)	(3)	(3)
Environmental Science or Studies upper-division course	3	3
Electives, additional Environmental Science or Studies courses and/or General Education	6	6
Total	15	15
<b>Fourth Year</b>		
	<b>A</b>	<b>S</b>
ENST 489S (EVST 477S) Env. Justice Issues & Solutions (or ENST 487 (EVST 487) Globalization Justice & Env)	(3)	(3)
Environmental Science or Studies upper-division course	(3)	(3)
ENST 398 (EVST 398) Cooperative Education/Intern	(3)	(3)
Electives, additional Environmental Science or Studies courses and/or General Education	6	6
Total	15	15

#### Requirements for a Minor

To earn a minor the student must complete 25 credits. The following courses must be completed: ENSC 105N (EVST 101N), ENST 230H, 225, (EVST 167H, 225) and one of these ecology courses: BIOE 172N (BIOL 121N), ENSC 360 (EVST 360), FORS 330 (FOR 330), or BIOE 370 (BIOL 340). The remaining credits can be from any other upper-division Environmental Science or Studies courses.

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### Environmental Studies (ENST) - Course Descriptions

201, 204, 225, 230H, 291, 294, 295, 335L, 367, 373A, 377, 382, 391, 395, 396, 398, 420, 430, 476, 480, 487, 489S, 491, 492, 493, 494, 499, 502, 204, 505, 513, 515, 520, 521, 525, 531, 537, 542, 548, 555, 560, 561, 562, 563, 564, 565, 566, 567, 573, 575, 579, 590, 593, 594, 595, 596, 597, 598, 599

#### Environmental Sciences (ENSC) - Course Descriptions

105N, 191, 245N, 360, 398, 491, 492, 495, 501, 540, 550, 551, 594, 596, 598

#### Faculty

##### Professors

Len Broberg, Ph.D., University of Oregon, 1995

Phil Condon, M.F.A., M.S., The University of Montana, 1989, 2000 (Director)

Neva Hassanein, Ph.D., University of Wisconsin, 1997

Vicki Watson, Ph.D., University of Wisconsin, 1981

##### Associate Professors

Fletcher Brown, Ph.D., Miami University, 1994

Robin Saha, Ph.D., University of Michigan, 2002

Daniel Spencer, Ph.D., Master of Divinity, Union Theological Seminary, New York, 1994, 1983

##### Emeritus Professor

Thomas M. Roy, M.A., University of Chicago, 1966

### Lecturer

Joshua Slotnick, MPS, Cornell University, 1995; Certificate in Ecological Horticulture, University of California Santa Cruz, 1991

### Instructor

Rosalyn LaPier, M.A., DePaul University, 2000

## Department of Geography

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

### Christiane von Reichert, Chair

Geography provides a broad-ranging perspective on humans as inhabitants and transformers of the face of the earth. The search for this understanding involves thorough study of the physical earth, its habitation by humans, and the resulting diversity of regions and places. Geographers study the physical earth by examining the interlocking systems of the natural environment, including climate, landforms, soils, and biota. Humans are studied by examining those diverse historical, cultural, social, economic, and political structures and processes which affect the location and spatial organization of population groups and their activities. Regions and places, whether described as nations, cities, ecological units, or landscapes, are studied by integrating and interpreting their physical and human relationships in an effort to better understand them and the problems that they face.

Geographers are often found working in business, industry, government, and education. Those in planning might be called upon to determine the most satisfactory location for a new school or an airport, or undertake the environmental or socioeconomic studies required for community and regional planning. Others enter fields such as environmental law, diplomacy, intelligence, and teaching. Graduates trained in cartography and Geographical Information Systems find professional opportunities creating digital maps and doing spatial analysis for a wide array of government entities. No academic discipline offers a greater range of employment opportunities.

The Department of Geography maintains particular strengths in each of the following major branches within the discipline: 1) physical geography (geomorphology, mountain environments, climate and global change); 2) human–environment interaction (environmental rehabilitation, water policy, and mountain-society interactions); 3) geography and society (sustainable cities, economic geography of rural areas, and migration and population change); 4) regional geography (with particular strengths in the geography of Montana, North America, Africa, Asia, and Europe); 5) geographical techniques (cartographic principles and design, Geographic Information System GIS, remote sensing, transport planning and GIS-T, field methods, quantitative and qualitative method).

The Department of Geography offers the Bachelor of Arts, Bachelor of Science, Master of Arts and Master of Sciences degrees in geography. For a B.A. in geography, an option in community and environmental planning is available. For a B.S. in geography an option in physical geography is available. Also offered are a minor in geography and a teaching major and minor in geography. Several interdisciplinary minors are available to students: a minor in mountain studies, a minor in climate change and a minor in international development studies. The bachelor degree program provides a broad liberal education, it qualifies graduates for a variety of professional jobs, and it prepares students who excel for graduate studies in geography, planning, GIS, or related fields. Graduate programs prepare candidates for a relatively greater range of employment, including teaching in community and junior colleges, and for doctoral studies in geography and allied disciplines. In addition to a general degree in geography without option, students may pursue an option within the M.S. program in the following areas: community and environmental planning, or cartography and GIS. See the Graduate School website for more information concerning the M.A. and M.S. programs.

A certificate in GIS Sciences and Technologies, jointly offered by the Department of Geography (College of Arts and Sciences) and the Department of Forest Management (College of Forestry and Conservation), is also available. This GIST certificate is a complement to an existing major or to a bachelor's degree already obtained. For details, please see below or the GIST website.

### **Special Degree Requirements**

Refer to graduation requirements listed previously in the catalog. See index.

### **General Education Requirements for Geography Majors**

Geography majors must meet the mathematical literacy requirement by taking M 115 (MATH 117) or an M or STAT course higher than 150. Students obtaining a B.A. geography degree without an option, may meet the university-wide symbolic system requirement either by taking one year of foreign language instruction (100-level or higher) or by taking M 115 (MATH 117) and STAT 216 (MATH 241). Students choosing the CEP option must meet the university-wide symbolic system requirement by taking M 115 (MATH 117) and STAT 216 (MATH 241). Students obtaining a geography B.S. degree (with or without an option) must meet the symbolic systems requirement by taking M 115 and STAT 216 (Math 117 and Math 241), or just one of M 162, M 181H, or STAT 451 (Math 150, 152H, or 444). Regular calculus M 171 (Math 152) is strongly recommended. The upper-division writing expectation for the B.A. (with or without option) must be met by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog (see index), or by writing a senior thesis in geography. Those students completing the B.S. degree must select a science-based writing class for their writing course (GPHY 335 (GEOG 335), GEO 320 (GEOS 320), GEO 499 (GEOS 499), BIOO 470 (BIOL 304), BIOO 475 (BIOL 306), etc.) approved by their advisor or complete a senior thesis in geography.

### **Requirements for a Major in Geography**

A major in geography requires a minimum of 36 (maximum of 60) credits. All geography majors take a 25-credit core consisting of the following courses: GPHY 111N (GEOG 102N), GPHY 112 (GEOG 105), GPHY 121S (GEOG 101S), GPHY 284 (GPHY 381 and 382), GPHY 385 (GEOG 385), GPHY 141S (GEOG 103S) or other regional course, three 300- or 400-level courses, one each from the systematic emphases of physical geography, human-environment interaction, and geography and society.

Students who pursue a B.S. degree or an option in physical geography, or in community and environmental planning, also must meet the course requirements of the option (see below).

### **General Geography B.A.**

The general geography B.A. degree (without option) is very flexible. In addition to meeting the core requirements for all geography majors, students may take a wide range of electives in geography (minimum 11, maximum 35 elective credits). Electives may be chosen from the fields of regional geography, geographic methods and techniques, or systematic geography (physical geography, human-environment interaction, or geography and society).

### **General Geography B.S.**

The B.S. in Geography is designed to accommodate those students who are interested in pursuing more science-based and technical areas of study and work in the field of Geography, such as aspects involving physical geography and geospatial technologies, or environmental planning. Those pursuing a geography B.S. degree (with or without an option) must complete 6-10 additional credits (a two-course sequence) of science coursework. The classes must be selected and approved by the student and advisor as appropriate to individual student goals (e.g., BIOO 105N (BIOL 120N), BIOE 172N (BIOL 121).

### **Physical Geography Option**

In addition to satisfying the general requirements for a B.S. degree in geography, a student pursuing the option in physical geography must complete additional requirements, including EARTH 303N (GEOG 322N), GPHY 317 (GEOG 324), and GPHY 411N (GEOG 426N), though substitutions which broaden the students curriculum may be approved by their advisor. Also, students must complete an additional appropriate math course above the 150 level to complement the one used to fulfill their symbolic systems requirements (the second semester of Calculus is recommended), and the two-course sequence in science

used to fulfill the B.S. requirement MUST be one of the following: CHMY121N-123N (CHEM 151N-152N), CHMY 141N-143N (CHEM 161N-162N), PHSX 205N-207N (PHYS 121N-122N), PHSX 215N-217N (PHYS 211N- 212N), or BIOO 105N (BIOL 120N), BIOE 172N (BIOL 121N)).

#### **Community and Environmental Planning Option**

In addition to satisfying the general requirements for a B.A. degree in geography, the student desiring to achieve an option in community and environmental planning must complete: GPHY 465 (GEOG 465), at least one of the following two courses: GPHY 468 (GEOG 468) or GPHY 486 (GEOG 486) (with corequisite laboratories GPHY 469 (GEOG 469) or GPHY 489 (GEOG 489)), plus four of the following five courses: GPHY 323S (GEOG 315S), GPHY 335 (GEOG 335), GPHY 421 (GEOG 412S), GPHY 432 (GEOG 432), GPHY 435 (GEOG 435). (These courses can be used to satisfy the 300- or 400-level core requirement in geography and society, and human-environment interaction.) An internship is strongly recommended.

#### **Requirements for a Minor in Geography**

To earn a minor in Geography, the student must complete a minimum of 19 credits including: GPHY 111N (GEOG 101S and 102N); GPHY 121S and GPHY 141S (GEOG 103S) or other regional course; GPHY 112 (GEOG 105), GPHY 284 (GPHY 381 and 382), or GPHY 385 (GEOG 385); two upper-division systematic courses from the fields of physical geography, geography and society, and human-environment interaction.

#### **Minor in Mountain Studies**

Mountain Studies is an interdisciplinary field of study focusing on the physical and human dimensions of mountain environments. Coursework in the minor emphasizes physical geography and mountain-society interactions, including a critical analysis of the processes of change and influence shaping local and regional mountain environments today. The minor in Mountain Studies takes advantage of existing faculty expertise and an array of courses to provide students with a science-based curriculum and global perspective. Students pursuing the minor in mountain studies will develop knowledge and skills appropriate for graduate study and for working with government and non-government agencies and groups.

#### **General Requirements**

In addition to completing the requirements for a major in any discipline, students electing the minor in Mountain Studies must complete a minimum of 18 additional credits as follows:

1. Six credits must be core courses:

GPHY 314 Global Mountain Environments (3 cr.)

GPHY 338 Mountains and Society (3 cr.)

2. Six credits must be selected from the following list of region-specific mountain studies courses:

BIOL 342 Field Ecology (5 cr.) (summer field course at the Flathead Lake Biological Station)

BIOL 459 Alpine Ecology (3 cr.) (summer field course at the Flathead Lake Biological Station)

BIOO 101N Survey of Montana Wildlife & Habitats (3 cr.)

BIOO 335 Rocky Mountain Flora (3 cr.)

EVST 395/NRSM 311 Field Studies in Ecological and Human Communities; Section: Community and Conservation in the Northern Rockies (3 cr.)

EVST 395/NRSM 311 Field Studies in Ecological and Human Communities; Section: Ecological Restoration in Greater Yellowstone (3 cr.)

EVST/PTRM 418 Winter Wilderness Field Studies (3 cr.)

EVST/RSCN 382 Biogeography of Northwest Montana (3 cr.)

GEO 231 Geosciences Field Methods (2 cr.)

GPHY 138 Montana's Mountains (3 cr.)

GPHY 344 Crown of the Continent (3 cr.)

GPHY 391 Environmental Geography of the Northern Rockies (3 cr.)

GPHY 442 Regionalism and the Rocky Mountain West (3 cr.)

GPHY 438 Mountain Field Study (3 cr.)

GPHY 444 High Asia (3 cr.)

NRSM/GPHY 352 Himalayan Environment and Development (3 cr.)

NRSM/GPHY 353 Tourism and Sustainability in the Himalaya (3 cr.)

3. Six credits must be selected from the following list of

upper-division advanced mountain studies courses:

BIOL 451 Landscape Ecology (field course at Flathead Lake Biological Station) (3 cr.)

FORS 330 Forest Ecology (3 cr.)

GEO 391 Special Topics (3 cr.)

GEO 433 Global Tectonics (3 cr.)

GEO 488 Snow, Ice and Climate (3 cr.)

GPHY 317 Geomorphology (3 cr.)

GPHY 411 Biogeography (3 cr.)

GPHY 538 Mountain Studies Seminar (3 cr.)

NAS 351 Traditional Ecological Knowledge in Action (3 cr.)

NRSM 311 Field Studies in Ecological and Human Communities; Section: Conservation Biology in the Northern Rockies (3 cr.)

NRSM 385 Watershed Hydrology (3 cr.)

PTRM 482 Wilderness and Protected Area Management (3 cr.)

#### **Certificate in GIS Sciences and Technologies**

The Certificate in GIS Sciences and Technologies, jointly offered by the departments of Geography, and Forest Management, is aimed at present or future professionals or scientists who require skills in GIS technologies. The purpose of this program is to provide undergraduate students or individuals possessing an undergraduate degree with the training, knowledge, and understanding necessary to acquire, process, analyze, and properly display digital geographic data.

#### **Special Requirements for the Certificate**

To earn a certificate in GIS Sciences and Technologies, students must either complete or have completed an undergraduate degree and complete a minimum of 20 semester credit hours of course work, including 9 to 11 required credits and 9 to 11 elective credits as described below. Students must achieve at least an overall grade point average of 3.0 for courses within the program in order to earn a certificate. The certificate will be awarded upon the successful completion of all of the requirements

of the certificate and the undergraduate degree.

### **Background Courses:**

It is recommended that students complete the university symbolic systems requirements before beginning this program because these courses promote basic quantitative reasoning (M 115 (MATH 117), STAT 216 (MATH 241), FORS 201 (FOR 201), SOCI 202 (SOC 202)).

### **Required Courses (9-11 cr.): All 3 of the following requirements must be fulfilled.**

1. GPHY 284 Introduction to GIS and Cartography - 3 cr. autumn/spring (Prior to Fall 2013 this was fulfilled by either FORS 250 and 350 or GPHY 381 and 382)

2. FORS 351 (FOR 351) Photogrammetry and Remote Sensing - 3 cr. spring

OR

GPHY 487/489 (GEOG 487/489) Remote Sensing & Raster GIS (3 cr.) & Lab (1 cr.) - 4 cr. autumn

3. FORS 350 (FOR 350) Geographic Information Systems and Applications - 3 cr. spring

OR

GPHY 488/489 (GEOG 488/489) Thematic Cartography and GIS (3 cr.) and Lab (1 cr.) - 4 cr. spring

**Advanced Elective Courses (9-11 cr.):** (Although elective courses are organized by topical specialty, no specialization is necessary). Additional and experimental courses are offered intermittently; please see faculty or website for current semester offerings. Faculty may submit course syllabi to the GIS Certificate Committee for possible inclusion in the Certificate.

### **Raster GIS, Remote Sensing, and Image Analysis**

G GPHY 587/589 (GEOG 587/589) Image Analysis and Modeling (3 cr.) and Cartography/GIS Lab 91 cr.) - 4 cr. odd spring

G FORS 551 (FOR 551) Digital Image Processing - 3 cr. varies

### **Vector GIS and Networks**

UG GPHY 486/489 (GEOG 483/489) Transport Planning and GIS (3 cr.) and Cartography/GIS Lab (1 cr.) - 4 cr. winter or spring

G GPHY 588/589 (GEOG 588/589) Vector GIS (3 cr.) and Cartography/GIS Lab (1 cr.) - 4 cr. autumn

G GPHY 580 (GEOG 580) Seminar in GIS and Cartography - 3 cr. spring

### **Data Management and Programming**

UG GPHY 468/469 (GEOG 468/469) Community and Regional Analysis (3 cr.) and Planning & Analysis Lab (1 cr.) - 4 cr. autumn

UG FORS 505 (FOR 505) Sampling Methods - 3 cr. spring

U CSCI 250 (CS 177) Computer Modeling for Science majors - 3 cr. autumn

### **GIS Applications**

UG GPHY 385 (GEOG 385) Field Techniques - 3 cr. autumn, some spring

UG GPHY 467 (GEOG 467) Planning Decision Support Systems - 3 cr. some spring

UG GPHY 482/489 (GEOG 484/489) Spatial Analysis and GIS ( 3 cr.) & lab (1 cr.) - 4 cr. varies



UG GPHY 481 (GEOG 495) Digital Mapping & Advanced Cartographic Design - 3 cr. autumn

GPHY 564 (GEOG 564) Planning Design - 3 cr. even spring

FORS 503 (FOR 503) Predictive Distribution Modeling I - 3 cr. odd spring

WILD 562 (WBIO 562) Wildlife Habitat Modeling - 3 cr. odd fall

**Note:** It is a standard of The University of Montana that G designated courses can be taken only by graduate students or undergraduate students who have senior standing with an accumulative GPA of 3.0 or higher, and permission of the instructors.

No more than 4 credits of Independent Study or Internships can be used towards the Certificate.

#### Teacher Preparation in Geography

Students who want to be licensed to teach geography at the middle and high school level must complete the B.A. degree requirements in geography (general geography, no option required). They also must complete a teaching major or minor in a second field of their choice and the professional licensure program in the College of Education. Students may also earn a teaching minor in geography. See the Department of Curriculum & Instruction for information about admission to the Teacher Education Program and completion of the licensure program.

#### Additional Information for Majors

##### Advisor

Every geography major will be assigned a geography faculty member to act as advisor. The advisor offers assistance in designing a program and in monitoring progress. In addition to guiding students toward meeting degree requirements, advisors also can direct students toward special opportunities, such as study abroad and field experiences, as well as scholarship and internship opportunities. All course substitutions must be approved by the advisor. The advisor also reviews and initials a student's application for graduation before the application is signed by the chairperson.

##### International and Field Experience for Geographers

Students obtaining a degree in geography are strongly encouraged to explore study-abroad options and field experiences. Geography credits obtained through approved studies abroad will be applied toward the geography degree. With approval of the student's advisor, additional credits obtained through studies abroad and field experiences may count toward geography electives.

#### Suggested Course of Study

##### B.A. in Geography (General Geography without option):

	<b>First Year</b>	<b>A</b>	<b>S</b>
GPHY 111N (GEOG 102N) Introduction to Physical Geography	3	-	
GPHY 112 (GEOG 105) Introduction to Physical Geography Laboratory	1	-	
GPHY 121S (GEOG 101S) Introduction to Human Geography	-	3	
M 095 (MATH 100) Intermediate Algebra	3	-	
M 115 (MATH 117) Probability and Linear Math	-	3	
WRIT 101 (ENEX 101) College Writing I	3	-	
Electives and General Education	5	9	
Total	15	15	
	<b>Second Year</b>	<b>A</b>	<b>S</b>
GPHY 141S (GEOG 103S) Geography of World Regions or other regional geography course	3	-	
STAT 216 (MATH 241) or 100-level foreign language	0-5	3-5	
Electives and General Education	V	V	
Total	15	15	
	<b>Third Year</b>	<b>A</b>	<b>S</b>
GPHY 284 (GPHY 381 and 382) Introduction to GIS and Cartography	3	-	
GPHY 385 (GEOG 385) Field Techniques	3	-	
Upper division courses in Physical Geography, Geography & Society, and Human-Environment Interaction	3-6	3-6	
*Upper-division writing course	-	3	
Electives including study abroad/internship	5	5	

Total	15	15
<b>Fourth Year</b>		
Electives including study abroad/internship/ senior thesis	15	15
Total	15	15

**B.S. in Geography (General Geography without option):**

<b>First Year</b>		
	<b>A</b>	<b>S</b>
GPHY 111N (GEOG 102N) Introduction to Physical Geography	3	-
GPHY 112 (GEOG 105) Introduction to Physical Geography Laboratory	1	-
GPHY 121S (GEOG 101S) Introduction to Human Geography	-	3
M 121 College Algebra	3	-
M 122 College Trigonometry	-	3
WRIT 101 (ENEX 101) College Writing I	3	-
Electives and General Education	5	9
Total	15	15
<b>Second Year</b>		
	<b>A</b>	<b>S</b>
GPHY 141S (GEOG 103S) Geography of World Regions or other regional geography course	3	-
Approved Science Sequence in Chemistry, Physics, or Biology	3-5	3-5
M 451 and M 452 Statistical Methods I and II	3	3
Upper division course in Physical Geography	-	3
Electives and General Education	4-6	4-6
Total	15	15
<b>Third Year</b>		
	<b>A</b>	<b>S</b>
GPHY 284 (GPHY 381 and 382) Introduction to GIS and Cartography	3	-
GPHY 385 (GEOG 385) Field Techniques	3	-
Upper division courses in Physical Geography, Geography & Society, and Human-Environment Interaction	3-6	3-6
*Upper-division writing course	-	3
Electives including study abroad/internship	5	5
Total	15	15
<b>Fourth Year</b>		
	<b>A</b>	<b>S</b>
Electives including study abroad/internship/ senior thesis	15	15
Total	15	15

**B.A. in Geography with option in Community and Environmental Planning:**

<b>First Year: Same as General Geography</b>		
<b>Second Year</b>		
	<b>A</b>	<b>S</b>
GPHY 141S (GEOG 103S) Geography of World Regions, or other regional geography course	3	-
STAT 216 (MATH 241) Statistics	-	3
General Education and electives	12	12
	15	15
<b>Third Year: Same as General Geography</b>		
<b>Fourth Year</b>		
	<b>A</b>	<b>S</b>
GPHY 465 (GEOG 465) Planning Principles and Processes	3	-
GPHY 468 /469 (GEOG 468/469) Community & Regional Analysis and Laboratory OR GPHY 486/489 (GEOG 486/489) Transport, Planning, and GIS and Laboratory	4	-
Upper-division courses in Geography & Society, and Human-Environment Interaction	3	3
Electives including study abroad, internship/senior thesis	5	12
	15	15

**B.S. in Geography with option in Physical Geography:**

<b>First Year</b>		
	<b>A</b>	<b>S</b>
GPHY 111N (GEOG 102N) Introduction to Physical Geography	3	-
GPHY 112 (GEOG 105) Introduction to Physical Geography Laboratory	1	-
GPHY 121S (GEOG 101S) Introduction to Human Geography	-	3
Approved Science Sequence in Chemistry, Physics, or Biology	3-5	3-5
M 151 (MATH 121) Precalculus	-	4
WRIT 101 (ENEX 101) College Writing I	3	-
Electives and General Education	4	6
Total	15	15
<b>Second Year</b>		
	<b>A</b>	<b>S</b>
GPHY 141S (GEOG 103S) Geography of World Regions or other regional geography course	3	-
M 171 and 172 (MATH 152 and 153) Calculus I and II	4	4
Upper division course in Physical Geography	3	3
Electives and General Education	5	8
Total	15	15
<b>Third Year</b>		
	<b>A</b>	<b>S</b>

GPHY 284 (GPHY 381 and 382) Introduction to GIS and Cartography	3	–
GPHY 385 (GEOG 385) Field Techniques	3	–
Upper division courses in Physical Geography, Geography & Society, and Human–Environment Interaction	3–6	3–6
*Upper–division writing course	–	3
Electives including study abroad/internship	5	5
Total	15	15
<b>Fourth Year</b>		
Electives including study abroad/internship/ senior thesis	15	15
Total	15	15

## Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Geography (GPHY) - Course Descriptions

111N, 112, 121S, 141S, 144, 191, 191X, 199, 241, 243X, 245, 284, 291, 314, 317, 323S, 335, 336, 338, 342, 344, 347, 348, 352, 353, 378, 381, 382, 385, 391, 399, 411N, 413, 421, 423, 432, 433, 434, 435, 438, 442, 443, 444, 445, 465, 466, 467, 468, 469, 481, 482, 485, 486, 487, 488, 489, 491, 492, 497, 498, 499, 500, 504, 505, 515, 520, 525, 535, 538, 550, 560, 561, 562, 564, 578, 588, 589, 595, 596, 597, 598, 599

### Earth Systems (ERTH) - Course Descriptions

303N

## Faculty

### Professors

Sarah J. Halvorson, Ph.D., University of Colorado-Boulder, 2000

David D. Shively, Ph.D., Oregon State University, 1999

Christiane von Reichert, Ph.D., University of Idaho, 1992

### Associate Professors

Ulrich Kamp, Ph.D., Technical University of Berlin, 1999

Anna Klene, Ph.D., University of Delaware, 2005

### Lecturers and Adjuncts

Richard Graetz, D.H.L. (Hon), The University of Montana, 2004

Kevin G. McManigal, M.S., The University of Montana, 2011

### Emeritus Professors

John M. Crowley, Ph.D., University of Minnesota, 1964

Evan Denney, Ph.D., University of Washington, 1970

John J. Donahue, Jr., Ph.D., Syracuse University, 1971

Chris Field, Ph.D., University of California, Los Angeles, 1966

Jeffrey A. Gritzner, Ph.D., The University of Chicago, 1986

Darshan S. Kang, Ph.D., University of Nebraska, 1975

Paul B. Wilson, Ph.D., University of Nebraska, 1972

## Department of Geosciences

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

### James R. Staub, Chairman

Human impact on Earth systems and reliance on Earth's resources will increase as human population and economic production grows. These impacts are creating "global grand challenges": complex, globally important problems that require an interdisciplinary approach. The most pressing grand challenges over the next decade will be resource scarcity/depletion (especially water and petroleum), adaption to and mitigation of climate change and natural hazards, and environmental stewardship of highly stressed physical and biological Earth systems. As University of Montana Geoscientists, we address these challenges in our research and teaching. We develop the knowledge to find and extract mineral and water resources, solve problems caused by using those resources and develop models of the past, present and future Earth. Faculty, staff, graduate students, and undergraduate students are helping Montana and the World develop a sustainable future.

#### Our Vision:

We will build and teach a fundamental understanding of Earth processes to benefit humankind and sustain Earth systems.

#### Our Goals:

1. Conduct geoscience research, including obtaining extramural funding to perform essential and transformative research.
2. Disseminate research findings by publishing in peer-reviewed journals and presenting at national and international scientific conferences.
3. Teach students how to learn from known sources of information and create new knowledge from their own research.
4. Engage all graduate students and selected undergraduates in research and publication.
5. Produce graduates competent in their disciplines who can perform well in field, laboratory and computational settings, and who are prepared to serve as high-quality professionals in geoscience and related fields.
6. Provide opportunities for students to work and learn in other countries through international research and learning opportunities.
7. Educate the general student population about the nature of science and basic scientific principles through the study of Earth and its natural systems.
8. Engage the public with important geoscience issues through outreach and community education.

#### UM Geosciences in the National Context

With B.S., M.S. and Ph.D. degrees, UM Geosciences is one of 120 Ph.D. granting Geoscience departments in the United States. U.S. News & World Report ranks the UM Geosciences program with Universities like Florida State, Michigan Tech, University of Georgia, University of Pennsylvania, and University of South Carolina. We are ranked above schools like University of Idaho, University of Missouri, UNLV, and Notre Dame.

#### Employment

Geoscientists completing our program are employed by private industry, federal, state, and local governmental agencies, environmental consulting firms, non-profit organizations, and by schools needing Earth Science teachers. Jobs in geosciences are available at the B.S., M.S. and Ph.D. levels. The M.S. degree is considered the main working professional degree. The Ph.D. degree is required for positions at universities and with organizations specializing in research. However,

there are ample opportunities for geoscience employment with the B.S. degree. Our graduates have a wide range of educational and employment opportunities. Over the last decade, 95% of our graduate program alumni are employed in Geosciences: 13% work for government, 23% for industry, 31% for consultancies and 2% for non-governmental organizations, 10% are teaching, and 17% went on for a Ph.D. UM Geosciences graduates have exceptional placement rates.

### **Undergraduate Degree Requirements**

We offer three degree options/programs of study for the Bachelor of Science degree: Geosciences B.S., International Field Geosciences Joint B.S. with University of Cork (Ireland), and International Field Geosciences Dual B.S. with Potsdam University (Germany).

We also offer an Option in Earth Science Education (*see electronic catalog for detailed curriculum and course descriptions for each of these options*).

The Upper-division Writing Expectation must be met for all degree options by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog or by completing GEO 499 (GEOS 499). See index.

#### **Geosciences B.S.**

This option is designed for students who seek post-graduate employment as a professional geoscientist or preparation for graduate study in geosciences. The following Geosciences core courses are required to earn this degree: GEO 101N (GEOS 100N), GEO 102N (GEOS 101N), GEO 211 (GEOS 200), GEO 225, GEO 228 (GEOS 228), and GEO 231 (GEOS 230).

At least 32 credits of Geosciences courses must be completed, including at least 6 courses of which a minimum of 18 are upper-division (300-400 level) credits.

In addition to completing the coursework in Geosciences, students must also complete a minimum of 30 credits in cognate sciences classes. Required are the following: PHSX 205N/206N-207N/208N or PHSX 215N/216N - 217N/218N (PHYS 111N/113N-112N/114N or PHYS 211N/213N-212N/214N); CHMY 141N/143N (CHEM 161N/162N); M 162/274 (MATH 150/158) or M 171/172 (MATH 152/153); plus 3 credits in Computer Science (modeling or programming).

Additional cognate science courses completed to meet the minimum sum of 30 credits may include additional courses in Chemistry, Computer Science, Math, and Physics above the listed minimum levels specified above. Biology 100N or above is also appropriate, but substitutions or other science courses must be approved by the student's advisor.

#### **International Field Geosciences Joint B.S. Degree with University College of Cork (Ireland)**

This option is designed specifically for students who seek to combine a rigorous education in the Geosciences with a yearlong international geosciences experience and an emphasis on field-based learning. It requires attending classes and living overseas. Students demonstrating a high level of performance at the University will be eligible for partial financial support as funds are available. Although most of the course work completed during the year abroad will take place at University College Cork (UCC) in Ireland, additional course work is required through Potsdam University in Germany. For students who satisfy all degree requirements, a joint B.S. degree in International Field Geosciences will be awarded by The University of Montana and the University College Cork.

The following UM Geoscience courses are required to earn this degree: GEO 101N ; GEO 102N; GEO 211; GEO 225; GEO 228, GEO 231; GEO 315; GEO 442 or 443; and GEO 429. Also required are a minimum of 12 credits in upper division UM Geoscience courses selected from among the following: GEO 305, 310, 311, 320, 327, 420, 433, 442, 443, 460, 491 plus GRMN 101/102 or ENIR 101/102.

In addition to Geosciences coursework completed at UM, students must complete one formal field course run by the Institute of Earth and Environmental Science at Potsdam University to sites in and around Europe (arranged in consultation with advisor) plus one formal field course module run by University College Cork, selected from GL 2016 (Easter Field Course - Dingle Peninsula), GL3019 (Easter Field Course - Western Scotland), ER3002 (Easter Field Course - North Clare) GL4008

(Easter Field Course - Central Greece) or another equivalent-level field course run by UCC and approved a priori by their UCC and UM advisors. In addition, while in residence at Cork, students must complete any nine of the following courses in consultation with their UCC and UM advisors: Sed. processes and petrology; Igneous and MM Petrology; Invertebrate Paleontology & Evol.; Plate Tect. & Global Geophys.; Igneous petrogenesis & Geochem; Metamorphism & Geochronology; Advanced Structural Geology; Sedimentary Environments; Stratigraphy & Geologic Maps; Environmental Geology; Terr. Ecosystems through time; Micropaleontology & Palynology; Petroleum Geol. & Basin Analysis; Appl. Geophys. & Comp Apps.; Advanced Igneous Petrology; Hydrogeology.

Students seeking this degree must also complete one additional formal upper-level Geosciences course at Potsdam University during their year abroad. Recommended are courses that focus on computer-based visualization of geoscience data, using GIS or other visualization platforms. Along with the formal Geoscience course work completed at UM and abroad, students earning this degree must complete a minimum of 27 credits in cognate sciences classes, including the following: PHSX 205N/206N-207N/208N or PHSX 215N/216N - 217N/218N; CHMY 121N/123N or CHMY 141N/143N; M 162/274 OR M 171/172; three credits in Computer Science (modeling or programming), or GIS or Statistics. Also required is one year of college German, GRMN 101/102 or one year of college-level Gaelic (ENIR/IRSH 101 and ENIR/IRSH 102) and completion of general education requirements relevant to German and Irish culture and history.

### **International Field Geosciences Dual Degree with Potsdam University (Germany)**

This option is designed specifically for students who seek to combine a rigorous education in the Geosciences with a year-long international geosciences experience and an emphasis on field-based learning. It requires attending classes and living overseas. Students demonstrating a high level of performance at the University will be eligible for partial financial support as funds are available. Although most of the course work completed during the year abroad will take place at University Potsdam in Germany, additional course work is required at the University College Cork in Ireland. For students who satisfy all degree requirements, a B.S. degree in International Field Geosciences will be awarded by The University of Montana and a second B.S. degree in International Field Geosciences will be awarded by Potsdam University. The following UM Geoscience courses are required to earn this degree: GEO 101N ; GEO 102N ; GEO 211 ; GEO 225 ; GEO 228, GEO 231 ; GEO 326 ; and GEO 429 . Also required are a minimum of 15 credits in upper division UM Geoscience courses selected from among the following: GEO 305, 310, 311, 315, 320, 327, 420, 433, 438, 443, 437, 442, 460, 491 .

In addition to Geoscience coursework completed at UM, the following overseas field-based Geoscience courses are required: BP15 (Field course France, run by Potsdam) or BW01 (Field course-Norway, run by Potsdam) or BW02 (Field course-Alps, run by Potsdam); plus one of the following courses offered by University College Cork; GL 2016 (Easter Field Course-Dingle Peninsula), GL3019 (Easter Field Course-Western Scotland), ER3002 (Easter Field Course-North Clare), GL4008 (Easter Field Course-Central Greece) or another equivalent-level field course run by UCC and approved a priori by their Potsdam and UM advisors. Students seeking this degree must also complete any four of the following courses offered by Potsdam University: Regional Geology; Paleoclimate & Quaternary Geology; Analysis of Geologic maps; Analytic Geochemistry; Natural Hazards; Tectonophysics & Rheology; Seismology; Seismics; Geoelectrics; Sedimentary systems & stratigr. Geomorphology; Tectonics and geodynamics.

Along with the formal Geoscience course work, students earning this degree must complete a minimum of 27 credits in cognate sciences classes, including the following: PHSX 205N/206N-207N/208N or PHSX 215N/216N - 217N/218N; CHMY 121N/123N or CHMY 141N/143N; M 162/274 or M 171/172; three credits in Computer Science (modeling or programming), or GIS or Statistics. While overseas, the students must complete two additional cognate science courses at Potsdam University. Also required is one year of college German GRMN 101/102 and completion of general education requirements relevant to German and Irish culture and history.

### **Option in Earth Science Education**

Major Teaching Field of Earth Science: A student must complete GEO 101N, 102N, 105N or 108N, 211, 228, 226, 231, 304, 311, 3 additional credits from any geosciences course numbered 300 or above. Also required are, ASTR 131N, M 151, STAT 216, CHMY 121N, CHMY 123N, 485, PHSX 205N/206N, PHSX 207N/208N and EDU 497. For endorsement to teach earth science, a student also must gain admission to the Teacher Education Program and meet the requirements for teaching

licensure (see the College of Education section of this catalog). Students must complete the requirements for the required second teaching endorsement (major or minor). Students should develop their course of study with an Education advisor.

### Suggested Course of Study

Students enter our degree program from a number of different directions. Yet, our general advising remains the same. Students should plan on starting their math and chemistry sequences as freshman and beginning the physics sequence as sophomores. The following is provided as a planning guideline for the B.S. Geosciences degree option and assumes adequate high-school preparation in mathematics, chemistry and physics. If more preparation is needed in those disciplines, the student should develop a course of study with a Geosciences Department advisor. Students pursuing either of the International Field Geosciences B.S. degree programs (IFG-dual or IFG-joint) should see the IFG advisor to develop a course of study that meets those requirements because they are substantially different than the Geosciences B.S. degree program.

#### Geosciences B.S.

	<b>First Year</b>	<b>A</b>	<b>S</b>
CHMY 141N (CHEM 161N) College Chemistry I	5	-	
CHMY 143N (CHEM 162N) College Chemistry II	-	5	
M 171 (MATH 152) Calculus I	4	-	
M 172 (MATH 153) Calculus II	-	4	
GEO 101N/102N (GEOS 100N/101N) Intro to Physical Geology	4	-	
GEO 211 (GEOS 200) Earth History and Evolution	-	2	
General Education & WRIT 101 (ENEX 101) College Writing (as needed)	3	4	
<b>Total</b>	<b>16</b>	<b>15</b>	
	<b>Second Year</b>	<b>A</b>	<b>S</b>
GEO 225 Earth Materials	4	-	
GEO 228 (GEOS 228) Earth Surface Processes	-	2	
GEO 231 (GEOS 230) Geosciences Field Methods	-	2	
PHSX 215 & 216 (PHYS211N/213N) Fundamentals of Physics with Calc I & Lab	5	-	
PHSX 217N/218N (PHYS 212N/214N) Fundamentals of Physics with Calc II & Lab II	-	5	
Electives and General Education	6	6	
<b>Total</b>	<b>15</b>	<b>15</b>	
	<b>Third Year</b>	<b>A</b>	<b>S</b>
GEO at 300 level or above	6/8	-	
GEO at 300 level or above	-	6/8	
GIS/Computer Science/Statistics	3/4	-	
Electives and General Education	3/6	7/9	
<b>Total</b>	<b>15</b>	<b>15</b>	
	<b>Fourth Year</b>	<b>A</b>	<b>S</b>
GEO at 300 level or above <sup>1</sup>	3/4	3/4	
Upper Division Writing Course or Senior Thesis <sup>3</sup> (GEO 320 or 499)	3	3	
Additional cognate science or Independent Research <sup>2*</sup>	3/2	3/2	
Electives and General Education	6	6	
<b>Total</b>	<b>15</b>	<b>15</b>	

1. A total of 30 additional science credits are required. See special degree requirements. 2. GEO 429 (6 cr), Field Geology can also be taken in the summer to meet upper division Geosciences course requirements. 3. A Senior Thesis must be approved and mentored by a Geosciences faculty member and should be started no later than the fall of the student's senior year and completed by the end of spring semester.

#### Requirements for a Minor

To earn a minor in Geosciences the student must complete at least 18 credits in Geoscience courses. A typical sequence is, GEO 101N (or 105N or 108N), and GEO 102N, 211, 226, 228 and 231; plus 300-400 level Geoscience courses for a total of 18 credits or more. However, any sequence of Geoscience courses is acceptable with the consent of a Geoscience advisor. All courses must be taken for a traditional letter grade, and meet the minimum university grade requirements for major and minor course work (C-).

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits

beyond this maximum do not count toward a degree.

### **Geology (GEO) - Course Descriptions**

101N, 102N, 105N, 106N, 107N, 108N, 151, 191, 200, 207, 211, 225, 226, 228, 231, 291, 304E, 305, 309, 311, 315, 317, 320, 326, 327, 382, 391, 392, 398, 407, 408, 420, 421, 425, 426, 429, 433, 435, 436, 437, 438, 439, 442, 443, 451, 460, 469, 482, 488, 491, 492, 494, 498, 499, 502, 508, 522, 528, 531, 548, 560, 570, 572, 573, 575, 579, 580, 582, 583, 585, 587, 590, 595, 597, 599, 699

### **Faculty**

#### **Professors**

Marc S. Hendrix, Ph.D., Stanford University, 1992

Nancy W. Hinman, Ph.D., University of California (San Diego), 1987

Johnnie N. Moore, Ph.D., University of California (Los Angeles), 1976

James W. Sears, Ph.D., Queen's University, 1979

Steven D. Sheriff, Ph.D., University of Wyoming, 1981

George D. Stanley, Ph.D., University of Kansas, 1977

James R. Staub, Ph.D., University of South Carolina, 1985

William W. Woessner, Ph.D., University of Wisconsin (Madison), 1978

#### **Associate Professors**

Julia A. Baldwin, Ph.D., Massachusetts Institute of Technology, 2003

Rebecca O. Bendick, Ph.D., University of Colorado, Boulder, 2000

Joel T. Harper, Ph.D., University of Wyoming, 1997

Andrew C. Wilcox, Ph.D., Colorado State University, 2005

#### **Assistant Professors**

Marco P. Maneta, Ph.D., University of Extremadura (Spain), 2006

#### **Emeritus Professors**

David Alt, Ph.D., University of Texas, 1961

Donald W. Hyndman, Ph.D., University of California (Berkeley), 1964

Ian M. Lange, Ph.D., University of Washington, 1968

Raymond C. Murray, Ph.D., University of Wisconsin, 1955

Graham R. Thompson, Ph.D., Case Western Reserve, 1971

John P. Wehrenberg, Ph.D., University of Illinois, 1956

Donald Winston, Ph.D., University of Texas, 1963

### **Global Public Health**

◦ Requirements for a Minor



## Faculty

### Peter Koehn (Professor of Political Science), Advisor

**Global Public Health** (GPH) is an interdisciplinary field of study focusing on big issues facing the world community that will require insight and problem-solving leadership from future generations. Coursework in the minor emphasizes a global perspective on issues of public health policy and science and applications to transnational and local (including tribal) situations and challenges. Approved by the Board of Regents in March 2012, the GPH minor takes advantage of existing faculty expertise and courses to offer an interdisciplinary experience for interested undergraduate students. From a remarkable cross-campus team of highly qualified instructors, University of Montana students will learn about such transnationally interconnected challenges to public health as parasitic and vector-borne diseases, HIV/AIDS prevention and treatment, tuberculosis, climate-change impacts, trauma and violence, cancer prevention, obesity, maternal and child illnesses, nutrition, and the role of indigenous healers. The 21-credit curriculum is structured to ensure that students develop enduring understanding of determinants of illness, healing, and health from an interdisciplinary and comparative perspective. The curriculum also treats transnational, cultural, and ethical diversity and the interplay of biological, genetic, environmental, and societal forces that underlie individual and population health and illness, global health governance, and health policy within a cross-cutting exploration of ways to promote healthy behaviors and health equity. Core faculty will explore public-health issues utilizing insights available from disciplinary approaches that include epidemiology, anthropology, biology, political science, community-health planning, communication studies, and ethics.

Students who pursue the Global Public Health minor will become more informed and engaged citizens and will enhance their major field of study by preparing for a broad range of professions and graduate programs where they can promote global, local, and tribal public-health knowledge, research, and practice. A GPH minor opens transnational career pathways in well-funded global health projects for graduates who have expertise in business, law, economics, community health, social work, pharmacy, nursing, environmental sciences, and the natural sciences. Some graduates will advocate for the health-care needs of distant disadvantaged populations through service in the Peace Corps, non-governmental organizations (NGOs), public-health departments, disease-control centers, foundations, and international organizations. Others will utilize their awareness of global health issues to inform careers in research, health education and management, international economics, medicine, international business, immigrant health, philanthropy, diplomacy, public policy, and international public service.

### Requirements for a Minor

The GPH minor requires completion of 21 credits, at least 9 of which must be at the upper-division (300+) level. Students must complete one required social-science course (PSCI 227, Introduction to Global Health Issues) and one required science course (BIOM 227, Epidemiology of Vector-Borne and Parasitic Diseases). Students must complete a minimum 9 credits or 3 additional “**core**” courses from the following list of 18 courses, some of which are offered biannually:

ANTY 349	CHTH 355 (HHP 330)	HS 430	PSCI 463
ANTY 426		PHAR 320(2 cr)	PUBH 102 on-line
BIOM 400	CHTH 445 (HHP 488)	plus PHAR 395(1 cr)	PHAR 471 on-line
BIOM 427/BIOM 428	COMM 425	PHL 321	SW 465
	ECNS 310	PSCI 431	SOCI 355

Students also must complete a minimum of 6 credits or 2 additional “**content**” courses from the following list:

ANTY 227	BIOL 130N	HTH 430 (HHP 415)	SW 300
ANTY 333	BIOH 112	NASX 303	SW 310
ANTY 391		NASX 304	SW 323
ANTY 402	BIOH 113	NASX 388	SW 324
ANTY 418	BIOH 462	NUTR 221N	SW 410E
ANTY 422	BIOM 250N	PSCI 324	SW 455S
ANTY 431	BIOM 402/MICB 412	PSCI 326	SW 475

ANTY 435	BIOM 435	PSCI 348	SOCI 332
ANTY 491	COMX 204X (COMM 251X)	PSCI 431	SOCI 371
	COMX 415 (COMM 451)	PSYC 362	SOCI 443
		PUBH 4xx/595	WGSS 263S (WGS 263S)
	COMM 485		
	ECNS 217X		

Students must take all core courses from The University of Montana's curriculum, but can receive content credit for relevant practicum and internships experience and for relevant courses taken at other universities if approved by the program director.

Interested students need to complete the "add a minor" section on the "change of major" form and secure the signature of the program director. This form can be obtained from the program director or the Registrar's office. One semester prior to graduation, the program director must approve and sign the student's graduation plan. Students are asked to complete a written exit interview for the purpose of program assessment.

#### Faculty

Willard Granath, Ph.D.,

Tom Schwan, Ph.D.

Kimber Haddix McKay, Ph.D.

Gilbert Quintero, Ph.D.

Ralph C. Judd, Ph.D.

Joel Iverson, Ph.D.

Ranjan Shrestha, Ph.D.

K. Annie Sondag, Ph.D.

Laura Dybdal, Ph.D.

Ann K. Williams, Ph.D.

Annie Belcourt, Ph.D.

Rustem Medora, Ph.D.

Mark J. Hanson, Ph.D.

Peter Koehn, Ph.D.

Craig Molgaard, Ph.D., M.P.H.

Elizabeth Putnam, Ph.D.

Janet Finn, Ph.D.

Teresa Sobieszcyck, Ph.D.

#### Department of History

- Special Degree Requirements
- Suggested Course of Study
- Courses

## Faculty

### Robert H. Greene, Chair

For the student in search of a broad education rather than in training for a particular occupation, the History Department offers an exciting program of instruction. It is designed to provide a knowledge and understanding of the background and ramifications of present local, national, and world affairs. The program emphasizes understanding rather than the memorization of names and dates. Students are taught how to read critically, analyze thoughtfully, conduct research carefully, and write intelligently.

Toward this end, the department offers a wide variety of courses ranging in time, location, and subject. For those students interested in local history there are courses on Montana, the West and unique aspects of the frontier. Other classes stress the nature of early American society, the American Revolution, family and gender in America, the Civil War, and diplomacy in the Cold War. Still others emphasize European social, cultural, and intellectual history, European exploration, the French Revolution, Islamic civilization, Latin American history, Asian history, and Russian history. Topical courses concentrate upon documentary analysis, diplomacy, war and peace, terrorism, and environmental history.

The History Department helps to prepare men and women for many different kinds of occupations. Graduates are employed in federal, state or local government positions ranging from domestic to foreign service, from senators to research analysts. Many teach history in Montana or in other states while others pursue their educations at advanced graduate schools earning master or doctoral degrees. Several have been awarded Rhodes or Marshall Scholarships.

Lawyers, journalists and businessmen also are trained by the department; many combine history with political science, journalism, or business. History provides not only a basis for the pursuit of their chosen profession but also furnishes knowledge and perspective for intelligent leadership of citizens in community affairs.

The department offers the Bachelor of Arts, Master of Arts, and the Doctor of Philosophy degrees.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

#### Requirements for a History Major

Students selecting a major in history must complete the following requirements:

#### I. Courses and credits

A. A minimum of 40 credits in history, maximum of 60. Of the 40-credit total, 9 credits must be in European (EU) history, 9 in American (AM) history, and 9 in world (WRLD) history (Asian, Islamic, African, or Latin American, or international). History majors must complete at least 21 upper-division credits.

B. All history majors must take at least 2 or the following 8 courses: HSTR 101H, 102H, 103H, 104H, (HIST 104, 105, 107, 108), HSTA 101H, 102H, 103H, 104H (HIST 151-154).

- AP Policy: Those majors scoring a "5" on either the American history or European history AP exam are excused from the above requirement. Nevertheless, the department urges all history majors to gain a solid foundation for upper-division coursework by taking some or all of the above "survey" courses.

Note: Students scoring "5" on the American history and/or European history AP exams earn credit toward graduation but do not earn credit toward the history major.

C. History majors must complete HSTR 200 Introduction to Historical Methods. Students are advised to complete this course within two semesters of declaring the history major.

D. History majors must complete a 400-level approved history Upper-Division Writing (UDW) course. Speak to your advisor for a list of approved History UDW courses.

## II. Languages

The Department requires competency in English and a proficiency in one foreign language. These requirements include:

- A. WRIT 101 (ENEX 101) or its equivalent.
- B. Foreign language requirements may be satisfied by completing anyone of the following options:
  1. The 101-102 active skills sequence in any foreign language.
  2. Any single course at or above the 102 or 112 level in any foreign language.
  3. An equivalency test for (3) offered by the Department of Modern and Classical Languages and Literatures.

The Department of History does not allow credit for foreign languages taken in high school but students with high school backgrounds in a foreign language may wish to pursue options (2) or (3) above.

### Requirements for a History Minor

Students selecting a minor in history must complete the following requirements:

1. A minimum of 20 credits in history of which 6 credits must be in American (AM) history, 6 must be in European (EU) history, and 6 in world (WRLD) history (Asian, Islamic, African, Latin American or international). History minors must complete at least 9 upper-division credits.
2. Two of the following eight courses: HSTR 101H, 102H, 103H, 104H (HIST 104, 105, 107, 108), HSTA 101H, 102H, 103H, 104H, (HIST 151-154).

AP Policy: Those majors scoring a "5" on either the American history or European history AP exam are excused from the above requirement. Nevertheless, the department urges all history majors to gain a solid foundation for upper-division coursework by taking some or all of the above "survey" courses. Note: Students scoring "5" on the American history and/or European history AP exams earn credit toward graduation but do not earn credit toward the history major.

### History Teaching Major

Students may earn a teaching major in history by completing the requirements for the BA in history, to include the following: HSTA 101 or 102; HSTR 101 or 102; HSTR 200; HSTA 255; 9 credits in world history; 6 upper-division credits in American history; 6 upper-division credits in European history; 6 additional credits upper-division history electives; one HSTA/HSTR 400-level approved writing course; and EDU 497 (C&I 428). All requirements for the history major apply. Students with a teaching major in history must also complete a teaching major or minor in a second field. For the history teaching major, students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. Students may also earn a teaching minor in history. See the Department of Curriculum & Instruction for more information.

### History/Political Science Combined Major

This major is intended solely for students who want to be licensed to teach history, government, and one additional social science at the middle and high school levels. Requirements for the combined history/political science major are as follows: **in history**, a minimum of 31 credits, including: HSTR 101 or 102, HSTA 101 and 102, HSTR 200, HSTA 255, one elective course in world history, three upper-division elective courses to include at least one American and one European course, and one HSTA/HSTR 400-level approved writing course; **in political science**, a minimum of 30 credits, including: PSCI 210, 220, 230, 250, three upper-division elective courses in American government or public law, and three upper-division elective courses in comparative or international relations; **in one additional social science**, a minimum of 9 elective credits in economics or geography or psychology or sociology; and EDU 497 (C&I 428). Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. Students are eligible for a teaching license in social studies broadfield. See the Department of Curriculum & Instruction for more information.

### Suggested Course of Study for History Majors

<b>First Year</b>		<b>A</b>	<b>S</b>
HSTR 101H, 102H (HIST 104-105) Western Civilization I & II or HSTA 101H, 102H American History I & II (HIST 151-152)		4	4
HSTR 200 Introduction to Historical Methods		1	-
WRIT 101 (ENEX 101) Composition		3	-
Foreign language		5	5
Electives and General Education		3	6
		16	15
<b>Second Year</b>		<b>A</b>	<b>S</b>
HSTR 240 (HIST 201) East Asia, HSTA 255 (HIST 269) Montana, HSTR 262, 264 Islamic, or HSTR 230H, 231H Latin America		6	6
Electives and General Education		9	9
		15	15
<b>Third Year</b>		<b>A</b>	<b>S</b>
400-level approved history upper-division writing course.		(3)	(3)
HSTA OR HSTR upper division history courses		3-6	3-6
Electives and General Education		9	9
		15	15
<b>Fourth Year</b>		<b>A</b>	<b>S</b>
HSTA OR HSTR upper division history courses		6	3
Electives, General Education, Broadfield Social Sciences and C&I courses (if applicable)		9	12
		15	15

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### History: American (HSTA) - Course Descriptions

101H, 102H, 103H, 104H, 141H, 191, 198, 225, 255, 262, 291, 311, 314, 315, 316, 320, 322, 323, 324, 327, 333, 335, 342H, 345, 347, 354X, 358, 361, 370H, 371H, 372, 380, 382, 385, 387, 391, 415, 417, 418, 419, 420, 422, 455, 461, 462, 469, 471, 478, 491, 494, 501, 502, 550, 551, 552, 553, 562, 564, 566, 567, 570, 594, 595, 596, 597, 598, 599, 699

#### History: World (HSTR) - Course Descriptions

101H, 102H, 103H, 104H, 146H, 191, 198, 200, 230H, 231H, 240H, 241H, 242, 250, 262H, 264, 272E, 291, 302, 306, 307, 312, 315, 317, 320, 323, 325, 326, 334, 335, 343, 345, 348, 349, 350, 352, 353, 355, 357, 358, 361, 363, 364, 367, 369, 374, 377, 378, 380H, 384, 386, 391, 392, 398, 400, 401, 418, 435, 437, 441, 442, 448, 449, 455, 457, 458, 470, 472, 481, 491, 492, 494, 500, 511, 512, 514, 516, 531, 540, 550, 552, 553, 564, 566, 567, 585, 594, 595, 596, 597, 598, 599, 696, 699

#### Faculty

##### Professors

Richard R. Drake, Ph.D., University of California, Los Angeles, 1976

John A. Eglin, Ph.D., Yale University, 1996

Dan Flores, Ph.D., Texas A & M University, 1978 (A.B. Hammond Professor of Western History)

Linda S. Frey, Ph.D., Ohio State University, 1971

Anya Jabour, Ph.D., Rice University, 1995

Mehrdad Kia, Ph.D., University of Wisconsin-Madison, 1986

Michael S. Mayer, Ph.D., Princeton University, 1984

##### Associate Professors

Robert H. Greene, Ph.D., University of Michigan, 2004 (Chair)

Jody Pavilack, Ph.D., Duke University, 2003

Tobin Miller Shearer, Ph.D., Northwestern University, 2008

Kyle G. Volk, Ph.D., University of Chicago, 2008

Jeff Wiltse, Ph.D., Brandeis University, 2002

#### **Assistant Professor**

Christopher L. Pastore, Ph.D., University of New Hampshire, 2011

#### **Emeritus Professors**

George M. Dennison, Ph.D., University of Washington, 1968

David M. Emmons, Ph.D., University of Colorado, 1969

William E. Farr, Ph.D., University of Washington, 1971

Harry W. Fritz, Ph.D., Washington University at St. Louis, 1971

Paul Gordon Lauren, Ph.D., Stanford University, 1973 (Regents Professor)

Kenneth A. Lockridge, Ph.D., Princeton University, 1965

Frederick W. Skinner, Ph.D., Princeton University, 1973

#### **Visiting Assistant Professor**

Bradley Naranch, Ph.D., Johns Hopkins University, 2007

## **Human and Family Development**

- Requirements for a Minor
- Courses

#### **Paul Silverman ( Professor of Psychology), Chair, Human and Family Development**

#### **Minor**

The Human and Family Development minor is an interdisciplinary minor concerned with the study of life-span human development and family relations, and the impact of biological, environmental and socio-cultural factors on both. The HFD minor encompasses a broad range of areas: Early Intervention, Gerontology, Early Childhood, Normal Development, Family Development, and Exceptional Development. The minor is designed to supplement the knowledge base of students by providing a human and family development specialty orientation to their fields of major interest. Students with career goals that include communications, psychology, education, social work, sociology, anthropology, pre-medical sciences, nursing, and physical therapy will benefit from the specialty orientation in human and family development. Students with other career goals also will find the program rewarding; a business major interested in family service administration or consumer economics; a radio-television major interested in children's programming; a forestry major interested in recreational management appropriate for a particular population.

Human and family development encompasses a broad range of topics, all of which share the view that human growth is a valid subject of scientific study. Knowledge of the processes and contents of psychological, social and biological growth of the individual separately and within the family context will benefit the quality of life of both the student/investigator and the public. The purpose of this program is to equip students with a general knowledge of issues relevant to normal and atypical patterns of human and family development and to provide them with some practical skills and insights which will enhance their abilities in a variety of professions which deal with developmental and family issues. The minor has general, early intervention, and gerontology tracks.

The interdisciplinary curriculum reflects four specific goals: (1) to provide students with an extensive knowledge base of theory and research concerning lifespan development and the role of the family in development; (2) to train students to be critical

consumers of research and evaluation results in the human and family development areas; (3) to provide students with practical experience in at least one applied service discipline in the human development areas; and (4) to provide students with the opportunity to take topical courses in normal and atypical development of the individual and family. All students seeking a minor must formally enroll in the minor and select a faculty advisor from the Human and Family Development Committee.

#### Requirements for a Minor

To earn a minor the student must complete 24 credits, with 11 at the 300 level or above. All students are required to take a 12-credit core curriculum and, with the help of a faculty advisor, to develop a written statement of goals and interests along with a planned curriculum that includes 12 additional credits of electives consistent with the stated goals and interests. At least 6 credits of electives must be outside of the student's major.

#### Core Curriculum:

- PSYX 230S or 233 (PSYC 240S or 245) (3 cr.)
- HFD 494 Seminar in Human Development (at least 1 cr.)
- HFD 498 Internship (Variable cr.; 2 required)

#### One of the following:

- HFD 412 Family Development (3 cr.)
- COMM 411 Family Communication (3 cr.)
- SOCI 332 (SOC 300) Sociology of The Family (3 cr.)

#### Plus one of the following research courses:

- PSYX 120 or 320 (PSYC 120 or 320) Research Methods (3 cr.)
- SOCI 318 (SOC 201) Social Science Methods (4 cr.)
- COMX 460 (COMM 460) Communication Research Methods (3 cr.)
- SW 400 Social Work Research (3 cr.)
- C&I 520 Educational Research (3 cr.)

#### Electives:

The following list of electives is categorized to assist the student wishing to focus on one of these areas. Students may plan curricula which do not correspond to these categories, but should choose among courses from this list. Occasionally "special topics" courses are offered. Students may use these as electives with the consent of their advisors.

#### Early Intervention

- HFD 411 Infant and Toddler Development and Variability
- HFD 412 Family Development/Families of Young Children with Disabilities
- HFD 413 Assessment and Program Planning
- HFD 414 Community Service Delivery
- HFD 415 Implementation and Program Evaluation
- HFD 416 Data-Based Decision Making
- HFD 498 Internship

#### Early Childhood

- EDEC 330 (C&I 330) Early Childhood Education/Curriculum
- EDEC 310 (C&I 355) Child in the Family
- EDSP 462 (C&I 453) Introduction to Special Education Law and Policy
- EDEC 396 (C&I 367) Preschool Practicum
- EDU 345 (C&I 410) Exceptionality and Classroom Management
- EDSP 403 (C&I 420) Curriculum in Early Childhood Special Education

- C&I 421 Issues in Early Childhood Special Education
- EDU 494 (C&I 494) Practicum in Special Education Preschool
- EDU 491 (C&I 495) Special Topics in Special Education
- HFD 498 Internship (must complete all course work prior to taking course)
- HFD 413 Assessment & Program Planning
- PHAR 110N Use and Abuse of Drugs
- PSYX 297 (PSYC 397) Research Experience
- PSYX 378 (PSYC 335) Intro to Clinical Psychology

#### School-Age

- EDU 221 (C&I 303) Educational Psychology/Measurements
- EDU 345 (C&I 410) Exceptionality/Classroom Management
- PHAR 110N Use and Abuse of Drugs
- PSYX 378 (PSYC 335) Intro to Clinical Psychology
- PSYX 345 (PSYC 336S) Child and Adolescent Development Disorders
- PSYX 376 (PSYC 337) Principles of Cognitive Behavior Modification
- SOCI 332 (SOC 300) Sociology of the Family
- SOCI 330 (SOC 330) Juvenile Delinquency
- SW 300 Human Behavior and Social Environment
- SW 420S Child Abuse and Neglect

#### Adolescence

- EDU 221 (C&I 303) Educational Psychology/Measurements
- EDU 345 (C&I 410) Exceptionality/Classroom Management
- PHAR 110N Use and Abuse of Drugs
- PSYX 378 (PSYC 335) Intro to Clinical Psychology
- PSYX 345 (PSYC 336) Child and Adolescent Psychological Disorders
- PSYX 376 (PSYC 337) Principles of Cognitive Behavior Modification
- SOCI 332 (SOC 330) Sociology of the Family
- SOCI 330 (SOC 330) Juvenile Delinquency
- SW 300 Human Behavior and Social Environment
- SW 450 Children and Youth at Risk

#### Gerontology

- HS 325 Clinical Issues in Geriatrics
- HS 327 Montana Gerontology Society Annual Conference
- HS 495 Special Topics: Health Aspects of Aging
- PSYX 233 (PSYC 245) Fundamentals of Psychology of Aging
- SW 455S Social Gerontology

#### Family Development

- COMX 414 (COMM 410) Communication in Personal Relationships
- COMX 311 (COMM 311) Family Communication
- EDEC 310 (C&I 355) Child in the Family
- PSYX 348 (PSYC 385) Psychology of Family Violence
- SOCI 332 (SOC 300) Sociology of the Family
- SW 423/PSYX 441 (PSYC423)/SOCI 433 (SOC 432) Addiction Studies
- SW 450 Children and Youth at Risk

#### Human and Family Development Committee



Dan Doyle, Ph.D., University of Washington, 1984 (Professor, Sociology)

Christine Fiore, Ph.D., University of Rhode Island, 1990 (Professor, Psychology)

Ann Garfinkle, Ph.D., University of Washington, 1995 (Associate Professor, Education)

Shannon Guilfoyle, M.Ed., The University of Montana, 2002 (COTEACH Preschool Coordinator, Education)

Susan Harper-Whalen, Ed.M., Harvard University, 1984 (Research Faculty, Education)

Lynne S. Koester, Ph.D., University of Wisconsin, Madison, 1976 (Professor, Psychology)

Ted Maloney, M.A. (Adjunct Assistant Professor, Rural Institute: Center for Excellence in Disability Education, Research and Service)

Susie Morrison, Ed.S., The University of Montana, 1995 (Assistant Research Professor, Psychology)

Lucy Hart Paulson, M.S., University of Illinois, 1980 (Research Assistant Professor, Education)

Audrey Peterson, M.S., Pennsylvania State University, 1970 (Professor, Education)

Alan Sillars, Ph.D., University of Wisconsin, 1980 (Professor, Communication Studies)

Paul Silverman, Ph.D., University of Georgia, 1977 (Professor, Psychology)

John Spores, Ph.D., University of Michigan, 1976 (Professor, Social Work)

Meg Traci, Ph.D., The University of Montana, 2000 (Project Director, Rural Institute: Center for Excellence in Disability Education, Research and Service)

Richard van den Pol, Ph.D., Western Michigan University, 1981 (Professor, Education)

Kimberly A. Wallace, Ph.D., University of Notre Dame, 1999 (Associate Professor, Psychology)

Celia Winkler, Ph.D., University of Oregon, 1996 (Professor, Sociology)

### **Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### **Human and Family Development (HFD) - Course Descriptions**

199, 298, 399, 490, 494, 495, 498

### **International Development Studies**

⌚ Requirements for a Minor

⌚ Faculty

#### **Peter Koehn (Professor of Political Science), Advisor**

International Development Studies is an interdisciplinary field of study focusing on the interconnected processes of social, political, economic, cultural, and environmental change taking place in poor countries and poorer regions of wealthy countries. Coursework in the minor emphasizes a global perspective on the process of change and development, critical analysis of the role of internal and external influences on the development process, and applications to local (including Montana) situations and challenges. The IDS minor takes advantage of existing faculty expertise and courses to offer an interdisciplinary experience for those students interested in either international or domestic development work. Students minoring in IDS will develop knowledge and skills appropriate for graduate study and for working in non-governmental organizations, international

and bilateral government development organizations, the U.S. Peace Corps and other national/international equivalents, and /or community–development groups. The completion of the IDS minor also qualifies students for the UM Peace Corps Preparatory Program’s generalist certificate.

#### Requirements for a Minor

To earn a minor in International Development Studies the student must successfully complete a minimum of 21 credits (at least 7 upper–division). Of the 21 credits, 12 must be core courses and 9 must be content courses chosen from the following lists. Specialized independent study and internship credits can be counted for content credit when approved by the advisor.

#### Core Courses:

- ANTY 349 (ANTH 329) Social Change in Non–Western Societies
- COMX 204X (COMM 251X) International and Development Communication
- ECNS 217X (ECON 350) Economic Development
- ECNS 450 (ECON 450) Advanced Topics in Economic Development
- ENST 487 (EVST 487) Globalization, Justice and the Environment
- FOR/RSCN 170 International Environmental Change
- FOR/RSCN 424 Community Forestry and Conservation
- FOR/RSCN 475 Sociology of Environment and Development
- GPHY 141S (GEOG 103) Geography of World Regions
- PSCI 431 (PSC 431) Politics of Global Migration
- PSCI 463 (PSC 463S) Development Administration
- PTRM 451 (RECM 451) Tourism and Sustainability
- SOCI 270 (SOC 270) Introduction to Rural and Environmental Change
- SOCI 371 (SOC 370S) Social Change and Global Development
- SW 323 Women and Social Action in the Americas
- SW 465 Social Work in a Global Context

#### Content Courses:

- ANTY 330X (ANTH 330X) Peoples and Cultures of the World
- ANTY 333 (ANTH 343S) Culture and Population
- ANTY 326E (ANTH 385S) Indigenous Peoples and Global Development
- TASK 160S (BUS 160S) Issues in Sustainability
- COMX 421 (COMM 421) Communication and Nonprofit Organizations
- COMX 415 (COMM 451) Intercultural Communication
- ECNS 101S (ECON 100S) Economic Way of Thinking
- ENST 493 (EVST 410) Environmental Justice in Latin America
- EVST 440 Environmental Economics
- NRSM 352 (FOR/RECM/GPHY 352) Himalayan Environment and Development
- PTRM 353 (FOR/RECM/GPHY 353) Tourism, Livelihoods and Sustainability in the Himalaya
- GPHY 121S (GEOG 101S) Introduction to Human Geography
- GPHY 243X (GEOG 207S) Africa
- GPHY 245X (GEOG 213S) The Middle East
- GPHY 432 (GEOG 432)/EVST 432 Human Role in Environmental Change
- GPHY 433 (GEOG 333S) Cultural Ecology
- GPHY 434 (GEOG 434) Food and Famine
- GPHY 444 (GEOG 410) High Asia
- HSTR 231X (HIST 287H) Latin America, 1800–1990s
- HSTR 241 (HIST 214S/GEOG 241S) Central Asian Culture and Civilization
- HSTR 384E (HIST 335E) History of International Human Rights
- NASX 475X (NAS 400X)/PSCI 475X (PSC 475) Native American Sovereignty

- PSCI 220S (PSC 120S) Introduction to Comparative Government
- PSCI 230 (PSC 130E) International Relations
- PSCI 325 (PSC 325) Politics of Latin America
- PSCI 326 (PSC 326H) Politics of Africa
- PSCI 327 (PSC 327) Politics of Mexico
- PSCI 343 (PSC 343) Politics of Social Movements
- PSCI 432 (PSC 430) Inter–American Relations
- SOCI 212S (SOC 212S) Southeast Asian Culture and Civilization
- SOCI 346 (SOC 346) Rural Sociology
- SOCI 355 (SOC 355) Population and Society
- SOCI 443 (SOC 322) Sociology of Poverty
- SW 324 Gender and the Politics of Welfare

With permission of a core faculty member, up to 6 credits of field experience in international development can be counted toward the content requirements.

### Faculty

Jill Belsky, Ph.D., Cornell University, 1991 (Professor, Society and Conservation)

Jeff Bookwalter, Ph.D., University of Utah, 2000 (Associate Professor, Economics)

Keith Bosek, Ph.D., University of Georgia-Athens, 2006 (Professor, Society and Conservation)

Janet Finn, Ph.D., University of Michigan, 1995 (Associate Professor, Social Work)

Paul Haber, Ph.D., Columbia University, 1992 (Professor, Political Science)

Sarah Halvorson, Ph.D., University of Colorado, Boulder, 2000 (Professor, Geography)

Peter Koehn, Ph.D., University of Colorado, Boulder, 1973 (Professor, Political Science)

Kimber Haddix McKay, Ph.D., University of California, Davis, 1998 (Associate Professor, Anthropology)

Phyllis B. Ngai, Ed.D., The University of Montana, 2004 (Adjunct Assistant Professor, Communication Studies)

Ranjan Shrestha, Ph.D., Ohio State University, 2006 (Assistant Professor, Economics)

Steve Siebert, Ph.D., Cornell University, 1990 (Professor, Forest Management)

Teresa Sobieszczyk, Ph.D., Cornell University, 2000 (Associate Professor, Sociology)

Daniel Spencer, Ph.D., Union Theological Seminary, 1994 (Associate Professor, Environmental Studies)

### Latin American Studies

- Requirements for a Minor
- Faculty

**Maria Jose Bustos Fernandez (Professor of Modern and Classical Languages and Literatures) Director/Advisor**

The Latin American Studies program at The University of Montana–Missoula provides students an opportunity to study and research the history, culture, lands, art, geography and institutions of Spanish and Portuguese speaking nations of American through an interdisciplinary perspective. The growing importance of the United States economic, political and cultural relations with the Latin American region makes knowledge of Latin America and its people an essential part of a liberal arts education.

The Latin American Studies program is administered by the Latin American Studies steering committee. The interdisciplinary faculty who teach and direct research in the program, drawn mainly from the College of Arts and Sciences, are internationally

known for their research and experience abroad. The program encourages and promotes travel and exchange with institutions of higher education in Latin America. Several study abroad options in Latin America are available both for a short period of time or for longer stays (one semester or two semester programs). Inquire at the Departments of Modern and Classical Languages and Literatures, Political Sciences and Art for details on these programs as well as at the Office of International Programs.

The Latin American studies program offers a Minor in Latin American Studies in conjunction with a major in another discipline. Students admitted to the program must register with the academic advisor of the Latin American Studies program who will review their course of study and advise on planning their course sequence. Students are encouraged to plan this option early in their studies to be able to participate in a study abroad program, if possible. Students minoring in Latin American Studies will be prepared for graduate study or for employment in fields such as government, non-governmental organizations, business, industry, health and education.

#### **Requirements for a Minor**

To earn a minor in Latin American studies a student must:

1. Complete a minimum of 18 semester credits in approved Latin American studies courses (all courses listed below in addition to special offerings) in at least three different disciplines. One of these courses must be MCLG 100H, Introduction to Latin American Studies.
2. Complete SPNS 101 through 201 (SPAN 101 through 201), or equivalent.

Note: Participation in a study abroad program is highly recommended.

#### **Latin American Studies Core Curriculum:**

- MCLG 100H Introduction to Latin American Studies 3 cr.
- MCLG/LS 358 Latin American Civilization through Literature and Film 3 cr. or SPAN 359 Spanish American Civilization through Literature and Film 3 cr.
- SPNS 331 (SPAN 312L) Introduction to Latin American Literature 3 cr.
- SPNS 432 (SPAN 450L) Latin American Literature 3 cr. (R-6)
- SPNS 494 (SPAN 494) Seminar Variable cr. (R-12) (when topic is related to Latin American literature such as Latin American drama, poetry, novel, short story, Argentinian literature, 19th Century Latin American Literature)
- HSTR 230H (HIST 286H) Colonial Latin America 3 cr.
- HSTR 231X (HIST 287H) Modern Latin America 3 cr.
- HSTR 334 (HIST 385) Latin America: Reform and Revolution 3 cr.
- HSTR 435 (HIST 485) Latin America: Memories of Politics and Politics of Memory 3 cr.
- HSTR 436 (HIST 486) Latin America: Workers and Labor History 3 cr.
- PSCI 325 (PSC 325) Politics of Latin America 3 cr.
- PSCI 327 (PSC 327) Politics of Mexico 3 cr.
- PSCI 432 (PSC 430) Inter-American Relations 3 cr.
- PSCI 463 (PSC 463S) Development Administration (when offered during summer session in Mexico)
- ARTH 433 (ART/NAS 367) Art of the Ancient Americas 3 cr.
- ARTH 434 (ART/NAS 368) Latin American Art 3 cr.
- ARTH 494 (ART 451) Seminar in Art History and Criticism 3 cr. (when topic refers to Latin America)
- SW 323 Women and Social Action in the Americas 3 cr.
- ANTY 354H (ANTH 354) Mesoamerican Prehistory 3 cr.
- ENST 493 (EVST 410) Environmental Justice in Latin America (credits variable)

#### **Faculty**

##### **Professors**

David Aronofsky, J.D., University of Texas, 1982 (Law)

Maria José Bustos Fernandez, Ph.D., University of Colorado, Boulder, 1990 (Modern and Classical Languages and Literatures)

Hipolito Rafael Chacón, Ph.D., University of Chicago, 1995 (Art)

Eduardo Chirinos, Ph.D., Rutgers University, 1997 (Modern and Classical Languages and Literatures)

John E. Douglas, Ph.D., University of Arizona, 1990 (Anthropology)

Janet Finn, Ph.D., University of Michigan, 1995 (Social Work)

Paul Haber, Ph.D., Columbia University, 1992 (Political Science)

Clary Loisel, Ph.D., University of Florida, 1996 (Modern and Classical Languages and Literatures)

Jannine Montauban, Ph.D., Rutgers University, 2000 (Modern and Classical Languages and Literatures)

Stan Rose, Ph.D., University of Wisconsin, 1969 (Modern and Classical Languages and Literatures)

#### **Associate Professors**

Jody Pavilack, Ph.D., Duke University, 2003 (History)

Daniel Spencer, Ph.D., Union Theological Seminary, 1994 (Environmental Studies)

### **Liberal Studies Program**

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

#### **Stewart Justman, Director**

The Liberal Studies Program offers students the opportunity to work in a combination of disciplines within the humanities, including literature, philosophy, and history as well as neighboring fields. The Liberal Studies Program offers degree options in:

- General Humanities
- Asian Studies
- Religious Studies
- Women's and Gender Studies

In addition, the Liberal Studies Program offers a minor in Liberal Studies and South and Southeast Asian Studies.

The Liberal Studies curriculum is designed for the student who seeks a liberal education with emphasis on the humanities. While allowing ample room for electives, the coursework for the LS major focuses on the literary and religious works, cultural records, and ideas that enrich our common inheritance. The aim of the program is to foster critical understanding and appreciation of our inheritance and world through the study and discussion of these texts and traditions. Emphasis in all cases is on critical thinking, close reading of primary sources, analytical writing, and historical understanding. Students who graduate from the program will be prepared to enter various fields in the private and public sectors, pursue further professional training, and be better prepared to meet the demands of citizenship. More information about the program is available at the Liberal Studies Program office in LA 101, (406) 243–2949, or online at [www.cas.umt.edu/liberal](http://www.cas.umt.edu/liberal). For advising assistance contact the humanities advisor in LA 145 or call (406) 243-6082.

Majors in Liberal Studies may not take any course work presented for the major for CR/NCR. Upper-level students transferring into this program should have at least a C average in all credits attempted. The upper-division writing expectation must be met by successfully completing an upper-division writing course from the approved list in the General University

Requirements section of this catalog (such as LSH 484).

### General Humanities Option

#### Degree Requirements

#### Lower-Division Curriculum (courses numbered under 300)

1. Liberal Studies 151L, Introduction to Humanities: Bible, Greeks, Romans 4 cr.
2. Liberal Studies 152L, Introduction to Humanities: Medieval to Modern 4 cr.
3. Literary Studies - Survey of American or British Lit 3 cr.
4. Historical Studies - American or European History 3 cr.
5. Asian Studies 3 cr. (including courses in Religious Studies, Anthropology, Geography, and Sociology)
6. Religious Studies 3 cr.

Students must also satisfy the following requirements:

1. WRIT 101 (ENEX 101) Composition (coreq. or prereq. to LSH (LS) 151L – 152L) 3 cr.
2. Foreign Language Two years of a single foreign Language, 18 cr.

#### Upper-Division Curriculum (courses numbered 300 and above)

1. History 3 cr.
2. Philosophy/Political Philosophy 3 cr.
3. Women's and Gender Studies or Native American Studies or African-American Studies 3 cr.
4. Liberal Studies (from among LS 326, 327, 368, 428) 6 cr.
5. Religious Studies 6 cr.
6. Senior Liberal Studies capstone seminar 3 cr.

#### Suggested Course of Study

The course of study for Liberal Studies majors varies greatly depending on student interest and course availability. The core curriculum may take more than two years to complete, while the upper-division requirements typically take less than two years. Following is one possible course of study for the first two years:

	First Year	Autumn	Spring
WRIT 101 (ENEX 101) Composition		3	-
Foreign Language 101 and 102 Elementary		5	5
Historical Studies - American or European		-	4
LSH (LS) 151L and 152L Introduction to Humanities: Bible, Greeks, Romans; Medieval to Modern		4	4
M 105 (MATH 107) Contemporary Mathematics		3	-
Lower-division Native American Studies		-	3
Total		15	16
	Second Year	Autumn	Spring
Foreign Language 201 and 202 Intermediate		4	4
Literary Studies - American or British		-	3
Lower-division Religious Studies		3	-
Lower-division Asian Studies		-	3
General Education Requirements		9	6
Total		16	16

#### Liberal Studies Minor

To earn a minor in Liberal Studies, students must complete the following 23 credits:

- Liberal Studies 151L, 152L and 161H
- Six credits from among LSH 326, 327L 368 (LS 326, LS 327L, LS 368), and LSH 428
- Six credits from among upper-division Religious Studies courses

#### Asian Studies Option, Professor Bradley Clough, Advisor:

The Asian Studies Option offers opportunities for those students who wish to focus on the diverse societies of the Asian continent through the study of literature, geography, history, peoples, religious and other cultural traditions, and languages.

Interested students must major in Liberal Studies with an option in Asian Studies. In addition to select Liberal Studies courses, students will choose from specified courses offered in many departments and areas in the College of Arts and Sciences, such as History, Japanese Studies, Chinese Studies, Anthropology, Sociology, Geography, and Religious Studies.

Students who choose the Asian Studies option must meet with the Asian studies faculty advisor.

#### **Degree Requirements**

#### **Lower-Division Requirements**

##### **Language Requirement:**

Two years (or equivalent proficiency) in an Asian language appropriate to the student's academic goals and approved by the academic advisor. Students who plan to pursue graduate work are strongly advised to complete three years, including at least one study abroad in Asia experience.

##### **Liberal Studies, Introduction to the Humanities (8 credits)**

LSH (LS) 151L, 4 cr.

LSH (LS) 152L, 4 cr.

##### **Introductory Asian Studies (3 credits)**

###### **Choose one course from the following:**

SSEA/LSH 102H (LS 102H) Introduction to South and Southeast Asia

LSH 161H (LS 161H) Introduction to Asian Humanities

##### **Foundational Asian Studies (9 credits)**

###### **Choose two courses from the following:**

HSTR 240 (HIST 201H) East Asian Civilizations

SSEA/LSH 202 Introduction to India

JPNS 150H (JPNS 210H)/MCLG/LSH 150H Japanese Culture and Civilization

CHIN/LSH 211H (MCLG 211H) Chinese Culture and Civilization

SOCI 212S (SOC 212H)/SSEA 212S Social Issues in Southeast Asia

###### **And, choose one course from the following:**

RLST 232H (RELS 232H) Buddhism

RLST 233 (RELS 233) Traditions of Buddhist Meditation

RLST 234 (RELS 234) Hinduism

RLST 236 (RELS 236) Chinese Religions

RLST 238 (RELS 238) Japanese Religions

#### **Upper-Division Requirements**

##### **Choose 21 credits (7 courses, all 3 credits) from the following list:**

RLST 353 (RELS 353) Topics in South Asian Religions

RLST 354 (RELS 354) Topics in East Asian Religions

RLST 360 (RELS 360) Classics in Buddhist Literature

RLST 366 (RELS 366) Tibetan Civilization

RLST 367 (RELS 367) Approaches to the Study of Zen Buddhism

RLST 368 (RELS 368) Contemporary Buddhism in South and Southeast Asia

RLST 369 (RELS 369) Contemplative Traditions of Asia

CHIN/MCLG/LSH 313L Classical Chinese Poetry in English Translation  
 CHIN/MCLG/LSH 314L Traditional Chinese Literature in English Translation  
 CHIN/MCLG/LSH 432 Twentieth Century Chinese Fiction in English Translation  
 GPHY 444 (GEOG 410) High Asia  
 HSTR 343 (HIST 381H) Modern Japan  
 HSTR 345 (HIST 380H) Modern China  
 HSTR 448 (HIST 481) Tradition and Reform in China  
 HSTR 449 (HIST 482) Revolution and Reform In China  
 JPNS/MCLG 311 Classical Japanese Literature in English Translation  
 JPNS/MCLG 312 Japanese Literature from Medieval to Modern Times in English Translation  
 JPNS 386 History of Japanese Language  
 JPNS 391 (JPNS 395) Special Topics  
 JPNS 411 Modern Japanese Writers and Thinkers  
 JPNS 431 Post-War Japanese Literature  
 PSCI 329 (PSC 329) Politics of Japan

**Religious Studies Option, Professor Paul Dietrich, Advisor:**

Religion has been taught as an academic discipline at the University of Montana since 1924. Located within the Liberal Studies Program, the study of religion is pursued in the University in an interdisciplinary setting that offers opportunities for exploration and discovery in many areas of the humanities, art, and sciences. Our Religious Studies courses emphasize the scholarly analysis and interpretation of the history, literature, beliefs, myths, symbols, rituals, ethical and legal codes, and communities and institutions of the world's religious traditions.

We investigate how the world's religions address enduring human questions and influence responses to daily problems, and we explore how religious traditions shape lives and societies, from the emergence of the earliest civilizations to 21st-century global conflicts. Our students engage ideas about the good life and death, suffering and happiness, war and peace, revelation and salvation, God, mysticism, and religious experience. The curriculum is designed to provide students with a broad and deep understanding of religion as a field of human activity and inquiry. Students acquire the skills necessary to investigate specific religious traditions in historical depth and to understand the forms, expressions, and roles of religion in the world today.

**Degree Requirements**

1. Two years of a single foreign language: 18 cr.
2. LSH (LS) 151L 4 cr., LSH (LS) 152L 4 cr., LSH (LS) 161H 3 cr.
3. Two 200-level Religion courses, including one from among RLST 204H, 205, 221, or 225 (RELS 106H, 107, 220, and 225); and one from among RLST 232H, 234, 236, or 238 (RELS 232H, 234, 236, and 238): 6 cr.
4. RLST 300 (RELS 300) Theory and Method in the Study of Religion: 3 cr.
5. Five courses from among NASX 304E (NAS 301E), RLST 310 (RELS 310), RLST 320 (RELS 320), RLST 335 (RELS 335), RLST 336 (RELS 336), RLST 353 (RELS 353), RLST 354 (RELS 354), RLST 360 (RELS 360), RLST 366 (RELS 366), RLST 367 (RELS 367), RLST 368 (RELS 368), RLST 369 (RELS 369), RLST 370 (RELS 370), RLST 376 (RELS 376), RLST 281E (RLST 381E), and AAS 374 and AAS 417: 15 cr.
6. Two LSH (LS) courses with Religious Studies content (e.g. LSH (LS) 342): 6 cr.

Please consult the Religious Studies section of this catalog for more detailed information.

**Women's and Gender Studies Option, Professor Elizabeth Hubble and Professor Ione Crummy, Co-Directors of the Women's and Gender Studies Program:**

Students who choose the Women's and Gender Studies (WGS) option must register with the WGS advisor, who will supervise their program. The following requirements must be met to complete the WGS option within the liberal studies major.

Degree Requirements



1. WRIT 101 (ENEX 101) Composition (coreq. or prereq. to LSH (LS) 151L-152L) 3 cr.
2. Foreign language (four sequential semesters of one language) 18 cr.
3. Liberal Studies 151L, and 152L Introduction to Humanities 8 cr.
4. Literary Studies-American or British 3 cr.
5. Historical Studies-American or European History 3 cr.
6. Asian Studies (including courses in Religious Studies, Anthropology, Geography, and Sociology) 3 cr.
7. Religious studies 3 cr.
8. Completion of WGS 119H/PHL 151H (PHIL119H)/ LSH (LS) 119H
9. At least 21 credits of course work in relevant, advisor approved WGS courses numbered above 299. Each semester a list of these courses is published at pre-registration by the Women's Studies office, LA 138A, (406) 243-2584. Please consult the Women's and Gender Studies section of the catalog for additional information.

Please consult the Women's and Gender Studies section of the catalog for more detailed information.

### **South and Southeast Asian Studies Minor, Professor Ruth Vanita, Advisor**

The Liberal Studies Program offers undergraduates at the University of Montana-Missoula an opportunity to minor in South and Southeast Asian Studies (SSEA). Students will study South and Southeast Asian peoples, cultures, histories, and societies, as well as their literary, artistic and religious traditions. The region includes India, Nepal, Bhutan, Tibet, Sri Lanka, Pakistan, Bangladesh, Myanmar (Burma), Thailand, Laos, Cambodia, Vietnam, Malaysia, Brunei, Singapore, Indonesia, East Timor, and the Philippines.

The South Asian faculty of Liberal Studies work closely with those faculty from other disciplines at the University of Montana who have research and teaching interests, in the area and competence in regional languages.

Students may choose to minor in South and Southeast Asian Studies with a major in any discipline. They must meet with Professor Ruth Vanita, the advisor, and are encouraged to plan their course sequence at least one semester in advance.

### **Requirements for Minor**

Major in any discipline, with a minor in South and Southeast Asian Studies. A total of 18 credits as follows:

1. ANTY/SSEA/LSH (LS) 102H (three credits).
2. Six credits from the following lower division (100-200) courses: (SSEA/LS 202X, SSEA/RLST 232H (RELS 232H), SSEA/RLST 234 (RELS 234), and SSEA/SOCI 212S (SOC 212H))
3. Nine credits from the following upper-division (300 and above) courses, of which at least 3 credits must be in the humanities (SSEA 342, SSEA 353, SSEA 366, SSEA 368), and 3 credits in the social sciences (SSEA 330X and SSEA 440)
4. No language courses are required. However, students are encouraged to study regional languages through summer institutes, such as SEASSI, or through accredited study abroad experiences in either South, or Southeast Asia.
5. The faculty advisor may permit course substitutions

**The following is a list of SSEA courses for the Minor. Please refer to the South and Southeast Asian Studies section of the catalog for additional details.**

### **Lower-division courses**

ANTY/SSEA/LSH (LS) 102H Introduction to South and Southeast Asia  
 SSEA 191 Special Topics  
 SSEA/LSH 202X Introduction to India  
 SSEA/SOCI 212S (SOC 212H) Social Issues in Southeast Asia  
 SSEA/RLST 232H (RELS 232H) Buddhism  
 SSEA/RLST 234 (RELS 234) Hinduism  
 SSEA 291 Special Topics Variable

**Upper-division courses**

SSEA/ANTY 330X Peoples and Cultures of the World: Indonesia and the Philippines  
 SSEA/LSH (LS) 342 Topics in Comparative Literature and Religion  
 SSEA/RLST 353 (RELS 353) Topics in South Asian Religions  
 SSEA/RLST 366 (RELS 366) Tibetan Civilization  
 SSEA/RLST 368 (RELS 368) Contemporary Buddhism in South and Southeast Asia  
 SSEA 391 Special Topics Variable  
 SSEA/ANTY 440 Contemporary Issues of Southeast Asia  
 SSEA 491 Special Topics Variable

**South and Southeast Asian Studies Faculty**

Abhishek Chatterjee, Ph.D. University of Virginia 2010 (Political Science)

Bradley Clough, Ph.D. Columbia University 1998. (Liberal Studies)

Quan Ha, Ph.D. Texas Tech University, 2011 (English)

Ranjan Shrestha, Ph.D. Ohio State University 2007 (Economics)

Teresa Sobieszczyk, Ph.D. Cornell University 2001 (Sociology)

Ruth Vanita, Ph.D. Delhi University 1992 (Liberal Studies)

G.G. Weix, Ph.D. Cornell University 1990 (Anthropology)

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Liberal Studies & Humanities (LSH) - Course Descriptions**

102H, 151L, 152L, 161H, 191, 291, 292, 294, 326, 327L, 329, 342, 351L, 368, 390, 391, 392, 398, 484, 490, 492, 494, 498

**Faculty****Professors**

Paul A. Dietrich, Ph.D., University of Chicago, 1984

Stewart Justman, Ph.D., Columbia University, 1976

Ruth Vanita, Ph.D., Delhi University, 1992

**Associate Professors**

Bradley Clough, Ph.D., Columbia University, 1998

Nathaniel Levtow, Ph.D., Brown University, 2006

**Lecturer**

Mark Hanson, Ph.D., University of Virginia, 1993

**Linguistics**

- Courses
- Faculty

Irene Appelbaum, Director

### Mission

**Objectives.** The Linguistics Program aims to train students in the scientific analysis of language. Students are prepared to pursue further graduate study in the field; study other languages; apply their understanding of language to other fields including teaching English and other languages to non–native learners of those languages.

**Indigenous and Endangered Languages.** The research focus of the Program includes Indigenous languages of North America. Montana is the aboriginal home of speakers of languages belonging to four distinct families: 1. Salish (Flathead); 2. Algonquian (Cree, Blackfoot, Northern Cheyenne, and Gros Ventre); 3. Siouan (Assiniboine, Sioux and Crow); and 4. Kootenai, a language isolate. The Linguistics Program is committed to preserving and promoting the linguistic diversity of the region and the state.

**Interdisciplinary.** The Linguistics Program is situated within the Department of Anthropology. In offering its curriculum the Linguistics Program collaborates with Communication Studies, Communicative Sciences and Disorders, English, Modern and Classical Languages and Literatures, Native American Studies, and Philosophy.

### Degrees Offered

- **Graduate Program.** The Program offers an M.A. degree in Linguistics. Students may also pursue an M.A. degree with a Linguistics Specialization through the Department of Anthropology.
- **Undergraduate Program.** The Program offers a minor in Linguistics. Students majoring in any discipline including, but not limited to, the following fields will find linguistics courses to be a highly valuable addition to their major course of study: Biology, Communication Studies, Communicative Science and Disorders, Computer Science, Education, English, Modern and Classical Languages and Literatures, Native American Studies, and Psychology. Earning a minor in Linguistics requires completion of 18 credits. Students must complete the following requirements beyond their major degree requirements:

- i. 3 credits: LING 470;
- ii. 6 credits (2 of the following 3 courses): LING 471, LING 472/572, LING 489; and
- iii. 9 credits (3 elective courses from among the following): LING 270S\*, LING 375X, LING 465\*, LING 466, LING 471\*\*, LING 472/572\*\*, LING 473, LING 474, LING 475, LING 477, LING 478, LING 484, LING 489\*\*.

\* Cannot be taken after taking 470 or other courses marked with an asterisk. Only one of 270S and 465 may be counted towards the minor.

\*\* May be taken as an elective, only if not taken as a required course under ii. above.

A major in Linguistics is not currently offered.

Students may also pursue a Linguistics Option while earning a B.A. degree through the following departments: Anthropology, English, and Modern and Classical Languages and Literature (French). For specific course requirements, students should refer to the relevant department's section in this catalog.

- **Certificate of Accomplishment in English as a Second Language.** The University offers a sequence of courses (22 credits) leading to a Certificate of Accomplishment in English as a Second Language. The Certificate is issued by the University upon the recommendation of the Linguistics Program and the Faculty Senate.

In order to earn this Certificate, a student must hold, or simultaneously earn, a B.A. or higher degree and complete the following requirements:

- i. 12 credits: LING 470; LING 471; LING 472/572; LING 477 or LING 478
- ii. 6 credits (2 upper-division elective courses from among the following): LING 466, LING 473, LING 475, LING 476, and LING 489;
- iii. 3 credits: LING 480; and

iv. 1 credit: LING 491.

Courses taken for Certificate credit may not be taken on a credit/no credit basis (except 491).

- **English as a Second Language/Academic English (EASL).** Outside of its curriculum, the Linguistics Program directs several EASL courses for international students whose TOEFL scores range between 500 and 580. EASL courses enhance learning second-language English as the language of classroom instruction at an English-speaking university or college. These courses facilitate the transition from learning English to using English in academic settings. Course content concentrates on academic uses of language skills: reading, writing, speaking and listening, with a limited amount of intensive activity involving grammar and/or pronunciation. Trained, supervised Graduate Assistants instruct EASL courses. Each EASL course lasts one semester and grants international students three credit hours toward graduation.
- **Teacher Preparation in English as a Second Language Minor Teaching Field:** For an endorsement in the Minor Teaching Field of English as a Second Language, a student must complete LING 470, LING 471, LING 472/572, LING 477 or LING 478, LING 480 and LING 491 (for three credits); at least two courses from the following: LING 466, 473, 475, 476, and 489. Students also must gain admission to the Teacher Education Program and meet the requirements for teaching licensure (see College of Education section of this catalog). Courses taken for the Teaching Minor may not be taken on a credit/no credit basis.

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Linguistics (LING) - Course Descriptions

191, 198, 270S, 295, 375X, 391, 398, 403, 405, 465, 466, 470, 471, 472, 473, 474, 475, 477, 478, 480, 481, 482, 484, 489, 491, 492, 495, 498, 559, 570, 571, 572, 573, 574, 575, 584, 589, 595, 596, 598, 599, 699

### Linguistics Program Faculty

Irene Appelbaum, Ph.D., University of Chicago, 1995, Associate Professor, Director

Leora Bar-el, Ph.D., University of British Columbia, 2005, Associate Professor

Mizuki Miyashita, Ph.D., University of Arizona, 2002, Associate Professor

Tully J. Thibeau, Ph.D., University of Arizona, 1999, Associate Professor

### Adjunct Faculty

Jeanie Castillo, M.A., California State University, Fresno, 1998

## Department of Mathematical Sciences

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

### Leonid Kalachev, Chair

Mathematics is studied both as a tool and for its own sake. Its usefulness in the sciences - physical, biological, social, behavioral, and environmental - and in decision-making processes is so established as to make it an indispensable part of many curricula.

Mathematics is chosen as a major area of study by individuals who find it challenging, fascinating, and beautiful. It is also appreciated by many who seek primarily to use mathematics as a tool.

A career in mathematics, except for teaching at the secondary level, generally requires a graduate degree as preparation. Careers include teaching, research, and the application of mathematics to diverse problems in institutions of higher learning, business, industry, and government.

The Bachelor of Arts, Master of Arts, and Doctor of Philosophy degrees are offered as well as a Bachelor of Science in Mathematical Sciences–Computer Science.

**High School Preparation:** For studying mathematics at the university level, it is recommended that the high school course work consist of four years of college-preparatory mathematics, including geometry, trigonometry, and college algebra or precalculus. A course in calculus or statistics is helpful, but not necessary. It is unusual to complete an undergraduate degree in mathematics in four years without the necessary background to take Calculus I (M 171) during the freshman year (preferably during the first semester at the university).

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

#### Mathematics Requirements for B.A. Degree with a Major in Mathematical Sciences

To obtain a B.A. degree with a major in Mathematical Sciences, the required courses are M 171 or 181, 172 or 182 (MATH 152, 153), M 210 (except for students in the Mathematics Education option), M 221 (MATH 221), M 273 (MATH 251) (except for students in the Mathematics Education option), M 300 (MATH 300) (except for students in the Mathematics Education option), M 307 (MATH 305) and six additional courses from the following list (at least three of the six must be numbered 400 or above): M 301, 311, 325, 326, 361, 362, 381, 412, 414, 429, 431, 432, 439, 440, 445, 472, 473, 485 and STAT 341, 421, 422 (MATH 301, 311, 325, 326, 341, 351, 381, 382, 406, 412, 414, 421, 422, 431, 441, 442, 451, 452, 471, 475, 485). Four of the seven required 3- or 4-credit upper-division mathematical sciences courses must be taken from UM-Missoula. All mathematical sciences courses counted toward the major must be passed with a grade of C– or better and a 2.00 grade point average is required for these courses. In addition, if a special option is desired, the minimum requirements listed below for that option must be met. Additional courses should be chosen in consultation with a mathematics advisor.

#### Requirements for the Special Options

##### Applied Mathematics Option

M 311, 412, 414 (MATH 311, 412, 414) and one of M 440 or 472 (MATH 452 or 471). (M 381 and M485 (MATH 485) are recommended.)

##### Combinatorics and Optimization Option

M 361, 362, 485 (MATH 381, 382, 485); and one course chosen from STAT 341 (MATH 341), M 414, 440 (MATH 414, 471), or CSCI 332 (CS 332).

##### Mathematics Education Option

M 301, 326, 429, 431, 439 (MATH 301, 326, 406, 421, 431), and STAT 341 (MATH 341); either M 273 (MATH 251) or one additional course chosen from the above list for the six-course requirement; and the completion of licensure requirements for teaching in secondary schools to include EDU 497 (C&I 430).

##### Pure Mathematics Option

Four courses chosen from M 381, M431, 432, 472, 473 (MATH 421, 422, 451, 452).

##### Statistics Option

STAT 341, 421, 422 (MATH 341, 441, 442). (Additional mathematics and statistics courses chosen with advisor.)

#### Major Requirements in Courses Outside Mathematics

1. Except for students in the Mathematics Education option and for students presenting a second major within the University, students must either complete a two-semester language sequence as specified under "Group III: Modern and Classical Languages" in the General Education section of the Catalog, or take one course chosen from CSCI 100, 135, 136, 250 (CS 101, 131, 132, 177).
2. All mathematics majors, except those selecting the mathematics education option, must complete 18 credits in at most three sciences selected from astronomy, biology, chemistry, computer science, economics, forestry, geosciences, and physics. Students selecting the mathematics education option must complete 12 credits in at most two sciences selected from astronomy, biology, chemistry, computer science, geosciences, and physics. (Note that 'biology' includes all courses with prefixes BIOL, MICB, BIOB, BIOE, BIOH, BIOM, and BIOO.) An alternative to the science requirement is for the student to present a minor or second major within the University, or for the student with a mathematics education option to complete an additional teaching minor or major.
3. The upper-division writing requirement for Mathematical Sciences majors consists of: M 429 (MATH 406), or any other approved General Education upper-division Writing course, or a senior thesis (M 499 (MATH 499)).

#### **Requirements for a B.S. Degree with a Combined Major in Mathematical Sciences–Computer Science**

The purpose for the combined program is to provide a thorough background in both allied disciplines and to inculcate a deeper understanding of their goals and methods. A student must complete 60 credits in the two disciplines: 30 of these credits in mathematical sciences courses and 30 of these credits in computer science courses. A minimum grade of "C–" and a 2.0 grade point average is required in all courses which follow.

**The mathematical sciences requirements are:** M 171 (or 181), 172 (or 182), 221, 273, 307 (or 225) (MATH 152, 153, 221, 251, 305 (or 225)), and twelve credits of mathematical sciences electives selected from the following list: M 311, 325, 326, 361, 362, 381, 412, 414, 429, 431, 432, 439, 440, 445, 472, 473, 485 and STAT 341, 421, 422, 451, 452 (MATH 311, 325, 326, 341, 351, 381, 382, 406, 412, 414, 421, 422, 431, 441, 442, 444, 445, 451, 452, 471, 475, 485).

**The computer science requirements are:** CSCI 106, 135-136 or 137, 205, 232, 332, 361 (CS 121, 131–132 or 133, 242, 241, 332, 281) and nine credits of CSCI (CS) electives selected from courses numbered 300 and above. A total of at most three of the nine credits of CSCI (CS) electives may be in CSCI 398 or 498 (CS 398 or 498).

The combined nine additional credits of computer science electives and twelve additional credits of mathematical sciences electives must include at least three 3– or 4–credit courses numbered 400 or above, with at least one chosen from each department (not including M 429 (MATH 406) and STAT 451, 452 (MATH 444 and 445)).

**Other requirements are:** One of the sequences BIOB 160N, 170N, 171N (BIOL 110N, 108N, 109N); CHMY 141N, 143N (CHEM 161N, 162N); or PHSX 215N-218N (PHYS 211N–214N). In addition, WRIT 222 (FOR 220), and either COMX 111A or COMX 242 (COMM 111A or COMM 242).

Each student plans a program in consultation with a computer science and a mathematical sciences advisor. Students planning to attend graduate school in computer science or the mathematical sciences should consult with their respective advisors.

The upper-division writing requirement is one of the following: CSCI 315E (CS 415E), M 429 (MATH 406), any other approved General Education upper-division writing course, or a senior thesis (CSCI 499 (CS 499) or M 499 (MATH 499)).

#### **Suggested Curricula:**

Applied Math–Scientific Programming: M 311, 412, 414 (MATH 311, 412, 414), and one course chosen from STAT 341 (MATH 341), M 381, M 473, 472, 440 (MATH 451, 452, 471). Three courses chosen from CSCI 460, 441, 477, 444 (CS 344, 446, 477, 486).

Combinatorics and Optimization–Artificial Intelligence: M 361, 362 (MATH 381, 382), and two courses chosen from M 325, 414, 485 (MATH 325, 414, 485) and STAT 341 (MATH 341); and CSCI 460, 446, and 447 (CS 344, 455, and 457).

Statistics–Machine Learning: STAT 341, 421 (MATH 341, 441), and two courses chosen from M 325, 362, 485 (MATH 325, 382, 485) and STAT 422 (MATH 442). Three courses chosen from CSCI 340, 446, 447, 451, and 444 (CS 365, 455,

457, 458, and 486).

Algebra–Analysis: M 381, M 431 (MATH 421), and two courses chosen from M 326, 432, 473, 472 (MATH 326, 422, 451, 452); CSCI 460, 426 (CS 344, 441), and one other course.

### Suggested Course of Study

	First Year	A	S
M 171-172 or 181-182 (MATH 152-153) Calculus I, II or Honors Calculus I, II		4	4
M 210 Introduction to Mathematical Software		-	3
WRIT 101 (ENEX 101) Composition and other General Education Courses (including two sciences courses)		12	9
		16	16
	Second Year	A	S
M 221 (MATH 221) Introduction to Linear Algebra		4	-
M 273 (MATH 251) Multivariable Calculus		4	-
M 307 (MATH 305) Introduction to Abstract Mathematics		-	3
General Education courses, additional science courses and electives		9	13
		17	16

### Requirements for a Minor

To earn a minor in mathematics the student must earn 23 credits in M, MATH, or STAT courses listed in a UM-Missoula Catalog (or in transfer courses equivalent to such courses). M courses must be numbered 115 or higher (excluding M 118), and MATH courses must be numbered 111 or higher. Courses must include: (a) one of M 162 or 172 or 182 (MATH 150 or 153), and (b) at least three 3– or 4– credit courses at the 300 level or above. M 172 or 182 (MATH 153) (Calculus II) is recommended since it is a prerequisite for many upper–division mathematics courses. All courses counted toward the minor must be passed with a grade of C– or better and a 2.00 grade point average is required for these courses. A handout with detailed advice for math minors, including suggested curricula, is available on the math department’s home page.

**Mathematics Education Minor:** For a teaching minor endorsement in the field of mathematics, a student must complete M 171-172, 221, 301, 307, 326, 439 (MATH 152-153, 221, 301, 305, 326, 431), and STAT 341 (MATH 341). Students also must complete (EDU 497 (C&I 430), gain admission to Teacher Education Programs and meet the requirements for teaching licensure (see the Department of Curriculum and Instruction section of this catalog). All courses counted toward the minor must be passed with a letter grade of C– or better.

### Courses (click [Course Descriptions](#) link below to navigate to course description information in CyberBear)

Unless the student has prior written approval of the Mathematical Sciences Department, credit is not allowed for any mathematics course that is a prerequisite for a mathematics course for which credit has already been earned. Students receiving transfer or Advanced Placement credit for STAT 216 (MATH 241) may take M 115 (MATH 117) for credit. See the Missoula College section for Introductory Algebra, M 090 (MAT 005), and Intermediate Algebra, M 095 (MAT 100).

### Below is a complete listing of courses taught by the Mathematical Sciences Department

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### Mathematics (M) (MATH) - Course Descriptions

104, 105, 115, 118, 121, 122, 135, 136, 151, 162, 171, 172, 181, 182, 191, 210, 221, 225, 231, 273, 274, 291, 292, 294, 300, 301, 307, 311, 317, 325, 326, 361, 362, 363, 381, 391, 392, 394, 398, 412, 414, 418, 429, 431, 432, 439, 440, 445, 472, 473, 485, 490, 491, 492, 494, 498, 499, 500, 501, 504, 506, 510, 511, 512, 514, 520, 521, 522, 524, 526, 530, 531, 532, 550, 551, 555, 564, 570, 572, 573, 574, 578, 581, 582, 584, 593, 595, 596, 597, 598, 599, 600, 602, 605, 606, 609, 610, 620, 630, 650, 670, 680, 690, 691, 694, 699

#### Statistics (STAT) - Course Descriptions

216, 341, 421, 422, 451, 452, 457, 458, 540, 541, 542, 543, 544, 545, 547, 549, 640

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**Faculty****Professors**

Jonathan Graham, Ph.D., North Carolina State University, 1995

James J. Hirstein, Ed.D., University of Georgia, 1976

Leonid Kalachev, Ph.D., Moscow State University, 1987 (Chair)

P. Mark Kayll, Ph.D., Rutgers University, 1994

Jennifer McNulty, Ph.D., University of North Carolina at Chapel Hill, 1993

D. George McRae, Ph.D., University of Washington, 1967

David A. Patterson, Ph.D., University of Iowa, 1984

Bharath Sriraman, Ph.D., Northern Illinois University, 2002

Emily Stone, Ph.D., Cornell University, 1989

Karel M. Stroethoff, Ph.D., Michigan State University, 1987

Thomas Tonev, Ph.D., Moscow State University, 1973

Nikolaus Vonessen, Ph.D., Massachusetts Institute of Technology, 1988

**Associate Professors**

John Bardsley, Ph.D., Montana State University, 2002

Eric Chesebro, Ph.D., University of Texas at Austin, 2006

Jennifer Halfpap, Ph.D., University of Wisconsin, 2005

Solomon Harrar, Ph.D., Bowling Green State University, 2004

Kelly McKinnie, Ph.D., University of Texas at Austin, 2006

Greg St. George, Ph.D., The University of Montana, 1989

Brian Steele, Ph.D., The University of Montana, 1995

Ke Wu, Ph.D., University of Minnesota, 2008

**Assistant Professors**

Cory Palmer, Ph.D., Central European University, 2008

Matt Roscoe, Ph.D., University of Montana, 2011

**Lecturers**

Lauren Fern, M.S., Northern Illinois University, 1994

Cindy Leary, M.A., The University of Montana, 2006



Regina Souza, Ph.D., Massachusetts Institute of Technology, 1990

Bonnie Spence, M.A., University of Tulsa, 1991

#### **Emeritus Professors**

William R. Ballard, Ph.D., University of Chicago, 1957

Richard W. Billstein, Ed.D., The University of Montana, 1972

Charles A. Bryan, Ph.D., University of Arizona, 1963

William R. Derrick, Ph.D., Indiana University, 1966

Rudy A. Gideon, Ph.D., University of Wisconsin, 1970

Stanley I. Grossman, Ph.D., Brown University, 1969

Gloria C. Hewitt, Ph.D., University of Washington, 1962

Don O. Loftsgaarden, Ph.D., Montana State University, 1964

Johnny W. Lott, Ph.D., Georgia State University, 1973

Robert W. McKelvey, Ph.D., University of Wisconsin 1954

William M. Myers, Jr., Ph.D., Ohio State University, 1952

Howard E. Reinhardt, Ph.D., University of Michigan, 1959

George F. Votruba, Ph.D., University of Michigan, 1964

I. Keith Yale, Ph.D., University of California, Berkeley, 1966

### **Department of Military Science**

- Requirements for a Minor
- Courses
- Faculty

#### **Reserve Officers Training Corps, Micheal Swinson, Chair**

Army ROTC (Reserve Officers' Training Corps) offers college students the opportunity to serve as commissioned officers in the U.S. Army, the Army National Guard, or the U.S. Army Reserve upon graduation. ROTC enhances a student's education by providing unique leadership and management training, along with practical leadership experience. Students develop many of the qualities basic to success while earning a college degree and an officer's commission at the same time.

**The Margin of Difference.** Army ROTC cadets learn to be leaders and receive hands-on experience in managing physical, financial, and human resources. They develop self-confidence and superior decision-making skills. Employers value these leadership qualities and recognize the associated potential in ROTC graduates.

**Four-Year Program.** The four-year Army ROTC program consists of two parts, the Basic Course and the Advanced Course.

**Basic Course.** The basic course is normally taken during the first two years of college and may be taken without incurring any military obligation. This course covers such subjects as management principles, national defense, military history, and leadership development. Basic course classes include adventure training such as squad tactics and small arms marksmanship. Additional opportunities are also available to conduct small unit training exercises throughout Western Montana. In addition, a variety of outside social and professional enrichment activities are available. All necessary ROTC textbooks, uniforms, and other essential materials for the basic course are furnished to students at no cost. After completing the basic course, students who have demonstrated the potential to become officers and who have met the physical and scholastic standards are eligible to enroll in the Advanced Course. Compression of the Basic Course into two semesters may be arranged for those students who did not take military science courses during their

Freshman year.

**Advanced Course.** The Advanced Course is usually taken during the final two years of college. Instruction includes organization and management, tactics, ethics, critical thinking, creative problem solving and further leadership development. Uniforms and equipment in the Advanced Course are furnished to students at no cost. During the summer between their junior and senior years of college, Advanced Course cadets attend the Leader Development and Assessment Course (LDAC), a fully paid four-week leadership practicum. LDAC gives cadets the chance to apply what they have learned in the classroom and introduces them to Army life while also receiving academic credit. Completion of the Advanced Course requires two years of study. Each cadet in the Advanced Course receives a subsistence allowance of up to \$4,500 for each year of attendance.

**Two-Year Program.** The two-year program applies to incoming juniors and community college graduates, students at four-year colleges who did not take ROTC during their first two years of school, and students entering a two-year postgraduate course of study. To enter the two-year program, students must attend a fully paid four-week Leadership Training Course (LTC), normally held during the summer between their sophomore and junior years of college. At LTC, students learn to challenge themselves physically and mentally, and to build their confidence and leadership skills. After successfully completing LTC, students who meet all the necessary enrollment requirements may participate in the Advanced Course.

**Scholarships and Financial Assistance.** Army ROTC scholarships are offered for four, three and two years and are awarded on a competitive basis. Each scholarship pays 100% of student's tuition and fees, \$1200 a year for textbooks and supplies, and a monthly stipend totaling up to \$4,500 per year while the scholarship is in effect. Four-year scholarships are awarded to students who will be entering college as freshmen. Two and three-year scholarships are awarded to students already enrolled in college and to Army enlisted personnel on active duty. Additionally, students who attend LTC (see two-year program) may compete for two-year scholarships while at the course. Scholarship recipients can pursue degrees in any accredited four year program at the University of Montana. Students who receive scholarships are required to attain undergraduate degrees in the fields in which their scholarships were awarded.

**Veterans.** Veterans may apply their military experience as credit toward the ROTC Basic Course. If eligible, a veteran may enroll directly into the Advanced Course.

**Simultaneous Membership Program.** This program allows students to be members of the Army National Guard or the Army Reserve and to enroll in Army ROTC at the same time. Students participating in the Simultaneous Membership Program receive up to \$4,500 per year in tuition assistance \$4,500 per year in monthly stipends and an additional \$20,000 per year in other benefits. There are also scholarships available for students participating in the Simultaneous Membership Program that are interested in staying in the Army National Guard or the Army Reserve upon graduation that pay up to \$8,500 per year for living expenses and \$1,200 per year for textbooks, supplies and other equipment. These scholarships are in addition to many of the current benefits students receive as part of the Simultaneous Membership Program.

**Service Obligation.** There is no military service obligation for basic course students, unless on scholarship. Advanced course and scholarship (contracted) students incur an obligation to serve in the active Army, Army Reserve or National Guard.

**Commission Requirements.** In order to earn a commission as a Second Lieutenant in the United States Army, each student must:

1. Complete all required Military Science instruction while attending college as a full-time student, and obtain a baccalaureate or higher degree.
2. Complete a PMS approved US History course.
3. Meet medical and physical fitness standards.
4. Be a U.S. citizen.
5. Successfully complete the Leadership Development and Assessment Course.

6. Be recommended by the Professor of Military Science.

#### Requirements for a Minor

**Foundational Courses:** In order to enroll in courses leading to the Military Science minor, students should complete MSL 101, 102, 201, and 202. The department may waive the Basic Course requirements for following situation courses: prior military service, Advanced Individual Training (AIT), Leader's Training Course (LTC) or Accelerated Cadet Commissioning Training (ACCT).

**Grade Requirements:** Obtain a grade of "C" or better in all courses used toward the minor, and a cumulative GPA of 2.5 for Military Science courses.

**Credit Hour Requirements:** A minimum of 19 hours in Military Science courses as outlined below.

#### Required Courses (19 hours)

- MSL 301 Adaptive Team Leadership *with Lab* (4)
- MSL 302 Leadership in Changing Environments *with Lab* (4)
- MSL 401 Developing Adaptive Leaders *with Lab* (4)
- MSL 402 Leadership in a Complex World *with Lab* (4)
- HSTA 333 (HIST 368) American Military History (3)

Or

- HSTA 316 (HIST 355) American Civil War Era (3)

**History/Political Science Requirement:** A minimum of a combined 6 credits in History and Political Science. Students must complete at least 3 credits from each discipline with at least 3 credits of upper division coursework in addition to the required history course. Students may choose from the following courses:

- HSTR 272E (HIST 226E) Terrorism: Violence in the Modern World (3)
- HSTR 301 (HIST 302H) Political Ancient Greek Social History (3)
- HSTR 304 (HIST 303H) Ancient Rome (3)
- HSTR 374E (HIST 334E) War, Peace, and Society (3)
- HSTA 316 (HIST 355) American Civil War Era (3)
- HSTA 333 (HIST 368) American Military History (3)
- PSCI 230X (PSC 130E) Introduction to International Relations (3)
- PSCI 335 (PSC 335) American Foreign Policy (3)

#### Military Science Leadership (MSL)

A total of 24 credits are allowed toward the bachelor degree for contracted students. A total of 12 credits are allowed toward the bachelor degree for non-contracted students.

#### Suggested Course of Study

<b>First Year</b>	<b>A S</b>
MSL 101 Leadership and Personal Development	3 -
MSL 102 Introduction to Tactical Leadership	- 3
MSL 106 Army Physical Fitness	1 1
<b>Second Year</b>	<b>A S</b>
MSL 201 Innovative Team Leadership	3 -
MSL 202 Foundations of Tactical Leadership	- 3
MSL 106 Army Physical Fitness	1 1
<b>For Advanced Course Military Science Students:</b>	
<b>Third Year</b>	<b>A S</b>
MSL 301 Adaptive Team Leadership	3 -
MSL 302 Applied Team Leadership	- 3
MSL 303 Leadership Laboratory	1 1

MSL 106 Army Physical Fitness Drill & Conditioning	1 1
<b>Fourth Year</b>	<b>A S</b>
MSL 401 Adaptive Leadership	3 -
MSL 402 Leadership in a Complex World	- 3
MSL 303 Leadership Laboratory	1 1
MSL 106 Army Physical Fitness	1 1

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Military Science Leadership (MSL) - Course Descriptions

101, 102, 195, 201, 202, 203, 204, 295, 296, 301, 302, 303, 315, 391, 401, 402, 492

### Faculty

#### Professor

Micheal Swinson, M.A., U.S. Naval War College, 2009 (Chair)

#### Senior Military Instructor

Travis Hambrick, US Army Sergeant Major Academy, 2010

#### Assistant Professors

Thomas Luhrsen, M.A., Webster University 2011

Tracy Mitchell, B.A., Carroll College, 2000

Galen Bisel, US Army Senior Leaders Course, 2009

## Department of Modern and Classical Languages Literatures

- Major Degree Requirements
- Minor Degree Requirements
- Courses
- Faculty

#### Elizabeth Ametsbichler and Jannine Montauban, Co-Chair

Instruction is offered in the following languages and literatures: Chinese, French, German, Classical Greek, Italian, Japanese, Latin, Russian and Spanish, as well as in linguistics, foreign literatures in English translation, film, and the study of foreign cultures. Undergraduate courses have been planned to meet the needs of students who began studying a language in high school as well as those who undertake such study for the first time at the University.

The courses are intended to serve several purposes: (1) Contribute to the general education of students by giving them an opportunity to gain insight into patterns of living and thinking which are different from their own; (2) Enable students to gain proficiency in the language; (3) Prepare candidates for careers in research and college teaching by providing a solid basis for graduate studies in the various languages; (4) Prepare future teachers of foreign languages; (5) Give language training requisite to careers in government, foreign commerce, and library work; (6) Enable students to read foreign publications and to meet graduate foreign language requirements in their field.

The Department of Modern and Classical Languages and Literatures offers undergraduate majors in Classics (Greek and Latin), French, German, Japanese, Russian, and Spanish. Within Classics, it is possible to elect options in Classical Languages (Latin and Greek), Classical Civilization, and Latin. There is an undergraduate minor in Chinese. The Master of Arts degree in Modern Languages and Literatures is offered with options in French, German, and Spanish. A master's

degree with a concentration in any of the languages in which we offer a major may be obtained by means of the Master of Interdisciplinary Studies program.

**High School Preparation:** Credit is automatically granted for Advanced Placement scores of 3, 4, or 5. At each UM Orientation, the department offers a computerized placement/assessment examination in French, German, and Spanish. Students also can arrange individually to take the CLEP exam, administered by Testing Services in French, German, or Spanish.

These exams are not required, but serve one or more of three purposes:

1. **Exemption from the General Education Competency Requirement in Foreign Language:** if the student achieves a score that indicates a competence equivalent to the completion of French, German, or Spanish 102 (second semester). (See the General Education Requirements section of this catalog.)
2. **Placement for further study in the language:** the score achieved on this test is an accurate indicator of the course level at which language study should be resumed at the University (e.g. 102, 201, 202).
3. **Credit by examination:** A student with extensive language study may score high enough on the placement exam to qualify for University credits if she or he places into 202 or 301. By taking the course into which she or he placed (202 or 301) and receiving a B (3.00) or better, the student may then receive four by-pass credits (Pass grade only) for the preceding course (201 or 202).

Students who elect not to take this exam may:

1. Satisfy the General Education Competency Requirement in Foreign Language by successfully completing a University foreign language 102 (second semester) course.
2. Estimate their placement level for further study by the approximate equating of one year of high school study to one semester of university study. Students should consult with the department in making this estimate.

**Foreign Study Programs.** The Department of Modern and Classical Languages and Literatures offers programs of accredited study in Austria, China, Germany, Italy, Spain, Mexico, and Russia. Each program is supervised by a departmental faculty member, and is open to any student who meets the respective foreign language prerequisites. (There is no language prerequisite for the Study Abroad in Italy, but Italian is recommended.) Details concerning individual programs are available from the Department of Modern and Classical Languages and Literatures. The department also sponsors student exchanges with universities in France as well as work/study internships abroad for students in Japanese.

### Major Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

Total credits required for a major in a modern or classical language vary with the student's high school preparation or language credit transferred from another college or university. Requirements for academic majors are set forth below under the various languages. Requirements for teaching majors and minors also are listed under Curriculum and Instruction.

Courses submitted in fulfillment of major or minor requirements must be taken for a traditional letter grade.

Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses within their major language presented in fulfillment of requirements for the language major.

All majors must register in the department and be assigned a departmental major advisor. A student is not considered a major in the Department of Modern and Classical Languages and Literatures until he or she has registered with the department.

### Classics

#### Classical Languages Option:

1. 1a. Emphasis in Latin: twelve credits in Latin beyond Latin 102, plus six credits in Greek beyond Greek 102.  
1b. Emphasis in Greek: twelve credits in Greek beyond Greek 102, plus six credits in Latin beyond Latin 102.

2. CLAS 155L, CLAS 160L and either CLAS 251L or CLAS 252L.
3. Twelve credits from HSTR 301, 302, 304 (HIST 302H, 301H, 303H) CLAS 320, 360H or ARTH 407 (ART 381H), or PHL 261Y (PHIL 251H) or PHL 363 (PHIL 362).
4. Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirement for the Classics/Classical Languages major.
5. The upper-division Writing Expectation will be met by successfully completing HSTR 301, 302, 304 (HIST 302H, 301H, 303H) CLAS 320, 365 or PHL 363 (PHIL 362) with the consent of instructor.

**Classical Civilization Option:**

1. LATN 201 (LAT 211) or equivalent or GRK 201 (GRK 211) or equivalent or LATN 101-102 and GRK 101-102 or equivalent.
2. CLAS 155L, CLAS 160L, and either CLAS 251L or CLAS 252L.
3. Twelve credits from HSTR 301, 302, 304 (HIST 302H, 301H, 303H), CLAS 320, 360H, ARTH 407 (ART 381H) or PHL 261Y (PHIL 251H) or PHL 363 (PHIL 362). Students are encouraged to spread these credits among courses focusing on classical history, philosophy, art and literature.
4. Nine additional credits from recommended or specially approved courses. Recommended courses are CLAS 365 (MCLG 365); LATN 202 (LAT 212), 300; GRK 202 (GRK 212), 300; PHL 465, 466 (PHIL 461, 463).
5. Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirements for the Classics/Classical Civilization major.
6. The upper-division Writing Expectation must be met by successfully completing HSTR 301, 302, 304 (HIST 302H, 301H, 303H) CLAS 320, 365 or PHL 363 (PHIL 362) with the consent of instructor.

**Latin Option:**

1. Fifteen credits in Latin beyond Latin 202, Greek 101-102 may account for 4 credits.
2. Latin 402, Advanced Prose Composition.
3. CLAS 155L, 160H and either CLAS 251L or 252L (MCLG 155L, MCLG 160H and either MCLG 251L or 252L).
4. HSTR 304 (HIST 303H) and ARTH 407 (381H).
5. Nine additional credits from recommended or specially approved courses. Recommended courses are HSTR 301, 302 (HIST 302H, 301H), 320, 360H, or 362; PHL 261, or 363 465, 466 (PHIL 251 or 362, 461, 463). Students are encouraged to spread these credits among courses focusing on classical history, philosophy, art and literature.
6. Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirements for the Classics/Latin major.
7. The upper-division Writing Expectation must be met by successfully completing HSTR 301, 302, 304 (HIST 302H, 301H, 303H) CLAS 320, 365 or PHL 363 (PHIL 362) with the consent of instructor.

**French**

1. French 101 to 202 or equivalent.
2. At least 30 credits of upper-division courses in French, including 301 and 350 (formerly 302), three courses of the 310, 311, 312, 313 series, as well as 421 (formally 408), one 3-credit 400-level literature course and one 3-credit 400-level culture course or a second 3-credit 400-level literature course. Of these specifically required courses, at least 6 credits must be completed in courses with UM French faculty.
3. A second modern or classical language is encouraged as a sequence of complementary electives to a major in French, but is not a requirement.
4. One semester of French history HSTR 352 or 353 (HIST 314 or 315) is encouraged as a complementary elective to a major in French, but is not a requirement.
5. Students are required to maintain a minimum overall GPA of 2.5 in all upper-division French courses presented in fulfillment of requirements for the French major.
6. The upper-division Writing Expectation must be met by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog. See index.

**German**

1. German 101 to 202 or equivalent.
2. At least 30 credits of upper-division work in German, including 301, 302 or 305, 311, 312 or 318, 400 (GERM 301, 302, 305, 311, 312, 313, 403) and at least two 3-credit courses in literature at the 400 level and at least two of the following culture courses: 332L, 351H, 352H, 350, 322L and/or 362Y (GERM 303, 304, 355, 361, 362).
3. Students are required to maintain a minimum overall GPA of 2.5 in all upper-division GRMN courses presented in fulfillment of requirements for the German major.
4. The upper-division Writing Expectation must be met by successfully completing either 351H or 352H (GERM 303 & 304).
5. German majors are encouraged to participate in the German section's study abroad program to Germany/Austria that is offered every spring semester.

**Japanese**

1. Japanese 101 to 202 or equivalent.
2. At least 26 credits of upper-division work in Japanese language courses and electives, including 301, 302, 411 (repeatable once), 412 or 415, and at least 12 credits from JPNS 306, 311, 312, 386, 390 (up to 3 credits only), 393 (up to 3 credits only), 412, 431, and 491. Japanese 391 also may be counted as an elective when the course is a Japanese literature, Japanese pedagogy/linguistics, or Japanese cultural course not part of basic Japanese language instruction.
3. Japanese 150H and at least two Asian studies or history courses on Japan or East Asia at any level not in the Modern and Classical Languages and Literatures Department: for example, HSTR 240, 343 (HIST 201H, 381H).
4. Students are required to maintain a minimum overall GPA of 2.5 in all upper-division JPNS courses presented in fulfillment of requirements for the Japanese major.
5. The upper-division Writing Expectation must be met by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog. See index.

**Russian**

1. Russian 101 through 202 or equivalent.
2. RUSS/MCLG 105H: Intro to Russian Culture
3. At least 27 credits of upper-division work in Russian courses and electives, 15 of which must be in the target language and must include 301 and 302. The remainder of upper-division credits must include RUSS 494, two of the following: 308, 312L and 313L (306L and 307L), and one semester of Russian History.
4. Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirements for the Russian major.
5. The upper-division Writing Expectation must be met by successfully completing RUSS 494: Seminar in Russian Studies.

**Spanish**

1. Spanish 101 through 202 or equivalent.
2. At least 30 credits of upper-division courses in Spanish, including 301, 326 (311L), 331 (312L) and three 3-credit literature or linguistics courses at the 400 level (not SPNS 408).
3. All Spanish majors must complete MCLG 315L, Major Hispanic Authors, in addition to the 30 hours in upper-division Spanish courses. This class fulfills the upper-division writing requirement for the major.
4. The sequential order of the following required courses must be followed: SPNS 326 (SPAN 311) and SPNS 331 (SPAN 312L) before any 400-level literature course; 301 before 408.
5. Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirements for the Spanish major.
6. Spanish majors interested in Spanish-American literatures and cultures are encouraged to take MCLG 100H, 3 cr., Introduction to Latin American Studies, a requirement for students wishing to obtain the Latin American Studies minor. Students majoring in Spanish are also encouraged to check listings in anthropology, art, history, political science, sociology and other disciplines for additional courses that will fulfill the Latin American Studies minor. Students wishing to improve their facility in Spanish and earn credit toward their Spanish major or minor may wish to consider the Spanish section's study abroad programs offered each spring semester in Latin America or Spain. (Contact the Department of Modern and Classical Languages and Literatures for further information on either the Latin American Studies minor or study abroad programs.)

### Minor Degree Requirements

Minors are offered in Chinese, French, German, Japanese, Russian, Spanish, Classical Civilization, Latin, and Greek.

Total credits required for a minor vary by languages. These credits also vary with a student's high school preparation or language credits transferred from another college or university. For example, a student in a modern language with experience equivalent to 101-102 and 201-202 need only complete the upper division requirements and any additional lower division courses. Students with no experience in a modern language, however, must first complete 101-102 and 201-202 before taking upper division courses. Following is a list of requirements for each language.

In French, 101, 102, 201, 202 and 15 upper-division credits. Courses must include 301, 302 (350), and two of the following: 310, 311, 312, 313, 338 (311L, 312L, 313L, 338) and one 400-level course.

In Chinese, 101-102, 201-202, and nine credits in upper-division Chinese literature courses. With prior approval, three of these credits may be in China-focused courses offered by other departments.

In German, 101, 102, 201, 202 and 15 upper-division credits. Courses must include 301, 302 or 305, 311, and 312 or 318, and one of the following culture courses: 332L, 351H, 352H, 350, 322L, or 362Y (303H, 304H, 355, or 361L). Students must maintain a minimum overall GPA of 2.5 in these courses. Native or near-native speakers of German must substitute two 400-level literature courses for 301 and 302.

In Japanese, 101-102, 201-202 and 150H (JPNS 210H), as well as 9 credits in Japanese literature or other courses from among the following: JPNS 306, 311, 312, 386, 390 (up to 3 credits only), 393 (up to 3 credits only), 412, 431, and 491 (495). Students may substitute either Japanese 191 (195) (3 credits) or Japanese 291 (295) (3 credits) for one of the above. Also permitted in substitution would be one course from outside the department, if it has a substantial Japan-related element: Asian studies, Japanese history, etc.

In Russian, 101, 102, 201, 202, and 12 upper-division credits.

In Spanish, 101 through 202 or equivalent and 18 upper-division credits. Courses must include 301, 326 or 331 (311L or 312L), and a 400-level literature or linguistics course.

To earn a minor in Classical Civilization the student must complete either Latin 101, 102 or Greek 101, 102; LS 151L, CLAS 160L (MCLG 160L), and PHL 261Y, 363 (PHIL 251H, 362); three (3) credits from HSTR 301, 302, 304 (HIST 302H, 301H, 303H); and nine additional credits from: CLAS 155L, 251L, 252L, 360H, 365 (MCLG 155L, 251L, 252L, 320, 360H, 365); ARTH 407 (ART 381H); LATN 201, 202, 311 (LAT 211, 212, 300); GRK 201, 202, (211, 212) 300.

To earn a minor in Latin the student must complete LATN 101, 102, 201, 202 (LAT 101, 102, 211, 212) and 9 credits in courses numbered 300 and above.

To earn a minor in Greek the student must complete GRK 101, 102, 201, 202 (211, 212) and 9 credits in courses numbered 300 and above.

### Teacher Preparation in Modern and Classical Languages

**General Requirements for an Endorsement in the Extended Major, Major, and Minor Teaching Fields:** Students must gain admission to Teacher Education Program (see the College of Education section of this catalog). A departmental recommendation on the student's proficiency is required for student teaching. An overall minimum grade point average of 3.0 is required for upper division work. Students must meet the requirements for teaching licensure (see the College of Education section of this catalog.)

**Extended Major Teaching Field of French:** For an endorsement in the extended major teaching field of French, a student must complete the requirements for the B.A. with a major in French including FRCH 421, LING 270, and MCLG 410. Study in a French language country, provided either through the University's Study Abroad Program or an experience considered to be equivalent, also is required.

French qualifies for a single field endorsement. However, there is a limited demand in the majority of Montana high



schools for teachers with a single endorsement in French. Students should complete the requirements for a second teaching endorsement (major or minor) in another field in more demand in high schools.

**Minor Teaching Field of French:** For an endorsement in the minor teaching field of French, a student must complete FRCH 101, 102, 201, 202, 301, 350, 421 (FREN 101,102, 201, 202, 301, 302, 401) LING 270, and MCLG 410. Study in a French-language country, provided either through the University's Study Abroad Programs or an experience considered to be equivalent, also is required.

**Extended Major Teaching Field of German:** For an endorsement in the extended major teaching field of German, a student must complete the requirements for the B.A. with a major in German plus LING 270S and MCLG 410. Study in a German language country, provided either through the University's Study Abroad Program or an experience considered to be equivalent, also is required. German qualifies for a single field endorsement. However, there is a limited demand in the majority of Montana high schools for teachers with a single endorsement in German. Students are encouraged to complete the requirements for a second teaching endorsement (major or minor) in another field in more demand in high schools.

**Minor Teaching Field of German:** For an endorsement in the minor teaching field of German, a student must complete GRMN 101, 102, 201, 202, 301, 302 or 305 (GERM 101,102, 201, 202, 301, 302 or 305); one of the following German culture courses: 351H, 352H, 350, 322L or 362Y (303, 304H, 355, 361L or 362H); GRMN 400 (GERM 403), LING 270S, and MCLG 410. Study in a German-language country, provided either through the University's Study Abroad Program or an experience considered to be equivalent, also is required.

**Major Teaching Field of Latin:** For an endorsement in the major teaching field of Latin, a student must complete the requirements for the B.A. with a major in Classics, Latin option, and in addition, MCLG 410.

**Minor Teaching Field of Latin:** For an endorsement in the minor teaching field of Latin, a student must complete LATN 101, 102, 201, 202 (LAT 101, 102, 211, 212), 6 credits of LATN 311, 402, (LAT 300, 402) and MCLG 410.

**Major Teaching Field of Russian:** For an endorsement in the major teaching field of Russian, a student must complete the requirements for the B.A. with a major in Russian and MCLG 410.

**Minor Teaching Field of Russian:** For an endorsement in the minor teaching field of Russian, a student must complete RUSS 101, 102, 201 202, 301, 302, 312 (306L), and MCLG 410.

**Extended Major Teaching Field of Spanish:** For an endorsement in the extended major teaching field of Spanish, a student must complete the requirements for the B.A. with a major in Spanish including SPNS 301, 305, 400, 408 (SPAN 301, 302, 405, 408) and MCLG 410. Study in a Spanish language country, provided either through the University's Study Abroad Program or an experience considered to be equivalent, also is required. Spanish qualifies for a single field endorsement. However, there is a limited demand in the majority of Montana high schools for teachers with a single endorsement in Spanish. Students are encouraged to complete the requirements for a second teaching endorsement (major or minor) in another field in more demand in high schools.

**Minor Teaching Field of Spanish:** For an endorsement in the minor teaching field of Spanish, a student must complete SPNS 101 through 202 or equivalent, 301, 305, 326 or 331, 400 (SPAN 101 through 202, 301-302, 311L or 312, 405) and MCLG 410. Study in a Spanish-language country, provided either through the University's Study Abroad Program or an experience considered to be equivalent, also is required.

#### **Suggested Course of Study**

The following is a sample first year program to aid students in planning their first year before they arrive on campus and have the opportunity to work out a full four year course plan with their academic advisor. Each student intending to major or minor in a foreign language must consult with an advisor before registering. For any further information contact the Secretary, Department of Modern and Classical Languages and Literatures. For freshmen without previous training in the major language (French, German, Russian, Spanish):

First Year	A	S
Specific Recommendations:		
Major language 101-102 Elementary	5	5
LSH 151L-152L (LS 151L-152L) Introduction to the Humanities Bible and Medieval	4	4
HSTR 101H-102H (HIST 104H-105H) Western Civilization I, II	4	4
WRIT 101 (ENEX 101) Composition	3	-
Suggested electives:		
LIT 110L-120L (ENLT 120L-121L) Intro to Lit/Poetry	(3)	(3)
CLAS 160L (MCLG 160L) Classical Mythology	(3)	(3)
General Education courses in Perspectives 1, 4, or 5	0-3	3-6
	16	16

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

(The Arabic Program offers language instruction and cultural courses through the Central and Southwest Asian Center housed in the Anthropology Department. Course listings can be found under Anthropology. )

### General (MCLG & CLAS)

These courses are given in English for the general student body and do not require knowledge of a foreign language. They do not count as language credit toward a B.A. degree in any given foreign language. For clarity, they are arranged below according to the section in which they are offered.

### Classical Civilization (CLAS) - Course Descriptions

155L, 160L, 170, 251L, 252L, 309, 319, 320, 360H, 361, 362, 365E,

**Courses in Classical Civilization taught by Classics faculty, but through other departments**

HSTR 301H, 302, 304H, PHL 363

### Modern and Classical Literature (MCLG) - Course Descriptions

Any Language: 195, 198, 295, 296, 381, 395, 396, 398, 410, 440, 494, 495, 496, 501, 522, 594, 596, 598

Chinese Literature/Culture: 313L, 314L, 432

French Culture: 113H, 338, 339

German Literature/Culture: 222L, 231Y, 331H, 332L

Japanese Literature/Culture: 311, 312L, 431

Russian Literature/Culture: 105H, 193, 306L, 307L, 308, 393, 494

Spanish Literature/Culture: 100H, 315, 345, 358

### Linguistics (MCLX) - Course Descriptions

395, 495

### Arabic (ARAB) - Course Descriptions

101, 102, 191, 201, 202, 291, 292, 301, 302, 305, 307, 317, 391, 392

### Chinese (CHIN) - Course Descriptions

101, 102, 191, 199, 201, 202, 211H, 292, 301, 302, 313L, 314L, 380, 388, 391, 392, 395, 399, 432, 492

### French (FRCH) - Course Descriptions

101, 102, 191, 199, 201, 202, 292, 294, 300, 301, 310, 311, 312, 313, 338, 339, 350, 355, 391, 392, 399, 420, 421, 430, 440, 491, 492, 494, 500, 594, 595, 596, 599, 699

#### **German (GRMN) - Course Descriptions**

101, 102, 191, 199, 201, 202, 292, 301, 302, 305, 311, 312, 318, 321, 322L, 350, 351H, 352H, 391, 398, 399, 400, 431, 441, 451, 453, 491, 492, 540, 594, 595, 596, 599, 699

#### **Greek (GRK) - Course Descriptions**

101, 102, 191, 199, 201, 202, 292, 300, 391, 392, 399, 492

#### **Italian (ITAL) - Course Descriptions**

101, 102, 201, 202, 391

#### **Japanese (JPNS) - Course Descriptions**

101, 102, 150H, 191, 199, 201, 202, 291, 292, 301, 302, 306, 311, 312, 371, 386, 390, 391, 392, 398, 399, 411, 412, 415, 431L, 491, 492, 500

#### **Latin (LATN) - Course Descriptions**

101, 102, 191, 199, 201, 202, 292, 311, 391, 392, 399, 402, 492, 596

#### **Russian (RUSS) - Course Descriptions**

101, 102, 105H, 191, 192, 199, 201, 202, 292, 301, 302, 312L, 313L, 371, 372, 391, 392, 398, 399, 411, 412, 424, 440, 491, 492, 494

#### **Spanish (SPNS) - Course Descriptions**

101, 102, 191, 199, 201, 202, 292, 301, 305, 306, 308, 321, 326, 331, 355, 359, 391, 392, 398, 399, 400, 408, 432, 465, 466, 491, 492, 494, 500, 594, 595, 596, 599, 699

#### **Faculty**

##### **Professors**

Elizabeth Graff Ametsbichler, Ph.D., University of Maryland at College Park, 1992 (Co-Chair)

Christopher Anderson, Ph.D., University of Iowa, 1990

Hiltrudis Arens, Ph.D., University of Maryland, 1997

Hayden Ausland, Ph.D., University of California, Berkeley, 1987

Timothy Bradstock, Ph.D., Harvard University, 1984

Maria Jose Bustos Fernandez, Ph.D., University of Colorado, 1990

Eduardo Chirinos, Ph.D., Rutgers University, 1997

M. Ione Crummy Ph.D., Stanford University, 1992

Linda W. Gillison, Ph.D., University of Minnesota, 1975

Clary Loisel, Ph.D., University of Florida, 1996

Jannine Montauban, Ph.D., Rutgers University, 2000 (Co-Chair)

Judith N. Rabinovitch, Ph.D., Harvard University, 1981

Stanley L. Rose, Ph.D., University of Wisconsin, 1969

Michel Valentin, Ph.D., University of Minnesota, 1980

**Associate Professors**

Benedicte Boisseron, Ph.D. University of Michigan, 2006

Mladen Kozul, Ph.D., Universite de Paris X-Nanterre, 1996

Marton Marko, Ph.D., Washington University, 2005

Ona Renner–Fahey, Ph.D., Ohio State University, 2003

Matthew S. Semanoff, Ph.D., University of Wisconsin, 2002

**Assistant Professors**

Brian Dowdle, Ph.D., University of Michigan, 2012

Khaled Huthaily, Ed.D., University of Montana, 2008

Robert Tuck, Ph.D., Columbia University New York, 2012

Clint Walker, Ph.D., University of Wisconsin, Madison, 2006

**Senior Lecturer**

Zhen Cao, Ed.D., The University of Montana, 1997

**Lecturers**

Samir Bitar, M.A., University of Montana, 2009

Kelly Noe, M.A., Miami University, 2004

Alicia Gignoux, Ed.D., The University of Montana, 2009

Linda Bailey, M.A., University of Montana, 2001

**Adjunct Instructors**

Evelina Badery, M.A., Universita di Torino, 1981

Manolita Connor, M.A., University of Montana, 1992

Melissa MacKenzie, M.S., Eastern Michigan University, 1989

**Emeritus Professors**

Robert W. Acker, Ph.D., University of Texas at Austin, 1974

Anthony F. Beltramo, Ph.D., Stanford University, 1972

Raymond L. Corro, Ph.D. University of Utah, 1971

Maureen Cheney Curnow, Ph.D., Vanderbilt University, 1975

Gerald A. Fetz, Ph.D., University of Oregon, 1972

James A. Flightner, Ph.D., State University of New York at Buffalo, 1971

John G. Hay, Ph.D., University of Minnesota, 1973

Horst Jarka, Ph.D., University of Vienna, 1955

Gertrud Lackschewitz, Ph.D., Goettingen University, 1954

Dennis R. McCormick, Ph.D., University of Texas at Austin, 1972

Sigyn Minier, Ph.D., University of Connecticut, 1977

O. W. Rolfe, Ph.D., Stanford University, 1967

James M. Scott, Ph.D., University of Washington, 1986

John B. Wang, Ph.D., University of Maryland, 1967

**Emeritus Associate Professor**

Robert R. Brock, M.A., University of Washington, 1961

**Department of Native American Studies**

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

**Dave Beck, Chair**

The Native American Studies Department at the University of Montana builds its curriculum on the foundation of three interrelated principles: sovereignty, indigeneity and community well-being. In so doing we pay close attention to the continuing role of traditional value systems, the impacts of colonization and the efforts toward decolonization within tribal communities. We define sovereignty broadly as one of the rights of all indigenous peoples, including both the political-legal foundations as provided in U.S. law and policy and self-determination more generally. Indigeneity underlies the unique holistic relationship that Native American communities have to the land and to the environment. In addition, our degree program not only intends to advance the well-being of our individual students, both native and non-native, but also to enhance the well-being of Indigenous communities across Montana, the United States and globally, by providing necessary and relevant education about those communities as well as the skills and knowledge for those working within those communities to do so effectively. Our curriculum and the foundations of faculty research are broadly cross-disciplinary with these principles at their base.

Native American Studies is an academic discipline committed to examining the contemporary and past experiences and life ways of the first Americans from their perspective. The curriculum is designed to provide a study of American Indians from a holistic and humanistic viewpoint by focusing upon their cultures, history, and contemporary life. Courses are designed for both Native American and non Native American students so they can better understand human similarities and differences, thereby leading to more effective work with and within tribal communities, through stronger knowledge bases of tribal America, and the development of better communications and cross-cultural relationships.

The Native American Studies major supports the objectives of a liberal arts education. It is interdisciplinary and provides a perspective that critically analyzes and evaluates the strengths and limitations of each contributing discipline.

**Special Degree Requirements**

Refer to graduation requirements listed previously in the catalog. See index.

For the Bachelor of Arts degree with a major in Native American Studies, students must complete a minimum of 39 credits, 30 credits in Native American Studies plus nine elective credits which can be met within the department or out-of-

department. The required courses are: NASX 105H, 280, 201X, 235X, 303E, 304E, 306X or 475X, 494 (NAS 100H, 200, 201X, 202X, 301E, 303E, 341S or 400X, 494), and two of the following: NASX 464X, 465X, and 466X (NAS 464X, 465X and 466X).

Beyond these 30 credits in Native American Studies, students have the option to take an additional 17 credits as electives for a maximum of 47 credits in Native American Studies courses. These electives include NASX 141 (NAS 141), 142 (NAS 142), 180, 191 (NAS 195), 198, 210X (NAS 210X), 231X (NAS 231X), 260, 291 (NAS 295), 306X (NAS 341S), 340 (NAS 329), 354X (NAS 324H), 360 (NAS 344), 388 (NAS 388), 391 (NAS 395), 394 (NAS 394), 398, 403 (NAS 403), 405 (NAS 429), 430 (NAS 300), 475x (NAS 400X), 488 (NAS 410I), 491 (NAS 496), 499 (NAS 499), and one of the following: NASX 464X, 465x, and 466X (NAS 464X, 465X, and 466X).

The credits may also be chosen from the following out-of-department courses: ANTY 122S, 323X, 330X (ANTH 102S, 323X, 330X); HSTR 367, 369 and HSTA 455 (formerly HIST 365, 366, and 467).

The Upper-division Writing Expectation must be met by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog. See index.

As part of the major's liberal arts and interdisciplinary focus, all students completing the major must complete a minor in another field. The department recommends cognate areas of study for the minor including anthropology, history, sociology, and political science. Students also are encouraged to pursue a double major. The department recommends a compatible major in one of the following disciplines: anthropology, English, modern or classical languages and literatures, history, linguistics, political science, sociology, or social work. Students who pursue a second major are not required to complete a minor in addition to the second major.

### Suggested Course of Study

	First Year	A	S
WRIT 101 (ENEX 101) College Writing		3	-
M 105 Contemporary Mathematics		3	-
NASX 105H (NAS 100H) Introduction to Native American Studies		3	-
NASX 201X (NAS 201X) Indian Culture as Expressed Through Language		3	-
General Education		3	9
Electives		-	6
Total		15	15
	Second Year	A	S
NASX 280 (NAS 200) Native American Studies Research Theories & Methods		3	-
NASX 235X (NAS 202X) Oral & Written Traditions of Native Americans		3	-
General Education		6	9
Electives		3	6
Total		15	15
	Third Year	A	S
NASX 304E (NAS 301E) Native American Beliefs & Philosophy		3	-
NASX 303E (NAS 303E) Ecological Perspectives in Native American Traditions		-	3
NASX 306X (NAS 341X) Contemporary Issues of American Indians or NASX 475X (NAS 400X) Tribal Sovereignty		3	-
NASX 465X (NAS 465X) History of Indian Affairs in the 19th Century (Spring) or NASX 464 (NAS 464X) History of Indian Affairs to 1776 (Autumn)		(3)	(3)
Electives		9	9
Total		15	15
	Fourth Year	A	S
NASX 465X (NAS 465X) History of Indian Affairs in the 19th Century (Spring) or NAS 466X (NAS 466X) History of Indian Affairs from 1890 (Autumn)		(3)	(3)
NASX 494 (NAS 494) Seminar/Workshop		-	3
Electives		12	12
Total		15	15

### Requirements for a Minor

To earn a minor in Native American studies the student must complete a minimum of 21 credits of the following requirements:

1. Complete NASX 105H, 235X, 304E, 303E (NAS 100H, 202X, 301E and 303E).
2. Complete at least 9 credits of electives from the following approved cognate courses: ANTY 122S, 323X, 330X (ANTH 102S, 323, 330); HSTR 367, 369 (HIST 365, 366), HSTA 455 (HIST 467); NASX 141, 142, 180, 191, 198, 201X, 210X, 231X, 260, 280, 291, 405, 430, 354X, 340, 306X, 360, 388, 394, 391, 475X, 488, 465X, 466X, 491, and

499 (NAS 141, 142, 195, 201X, 210X, 231X, 200, 295, 429, 300, 324X, 329, 341, 342, 344, 388, 394, 395, 400X, 410, 465, 466, 496 and 499).

### **Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### **Native American Studies (NASX) - Course Descriptions**

105H, 141, 142, 180, 191, 198, 201X, 210X, 231X, 235X, 260, 280, 291, 303E, 304E, 306X, 340, 351, 352, 354X, 360, 388, 391, 394, 398, 403, 405H, 430, 464X, 465X, 466X, 475X, 488, 491, 492, 494, 499, 560, 594, 595, 596, 598

### **Faculty**

#### **Professors**

David R.M. Beck, Ph.D., University of Illinois at Chicago, 1994, Chair

Richmond L. Clow, Ph.D., University of New Mexico, 1977

S. Neyooxet Greymorning, Ph.D., University of Oklahoma, 1992

Kathryn W. Shanley, Ph.D., University of Michigan, 1987

#### **Associate Professor**

Wade M. Davies, Ph.D., Arizona State University, 1998

#### **Lecturer**

George Price, Ph.D., The University of Montana, 2006

## **Non-profit Administration**

**Andrea Vernon, (Director of the Office for Civic Engagement), Advisor**

The interdisciplinary minor in nonprofit administration concentrates on nonprofit board and committee development, fund raising principles and practices, nonprofit financial management, volunteer management, nonprofit management and program planning, grant writing, and nonprofit marketing. It is designed to complement students' major areas of study and prepare them to enter careers in the nonprofit sector. Interested students must meet with the program director at the Office for Civic Engagement prior to declaring the minor.

Students pursuing the nonprofit administration minor will have the option to obtain certification from the national Nonprofit Leadership Alliance organization if they complete additional requirements that include participation in the campus-based student association, extra-curricular training sessions and events, and attendance at a national Alliance Management/Leadership Institute. The director of the Office for Civic Engagement serves as the director for the national certification program. Students should contact that office for information regarding certification.

### **Requirements for a Minor**

Students must complete successfully 21 credits in the following courses:

1. PSCI 466 (PSC 466) Nonprofit Administration and Public Service, 3 cr.
2. PSCI 467 (PSC 467) Advanced Nonprofit Administration, 3 cr.
3. PSCI 498/HC 398 (PSC 498) Nonprofit Internship, 3 cr.
4. Twelve credits from at least four of the following six areas:
  - a. Communication Skills
    - . COMX 115S (COMM 110S), Introduction to Interpersonal Communication

- . COMX 210 (COMM 240) Communication in Small Groups
  - . COMX 421 (COMM 421) Comm in Nonprofit Organizations
  - . COMX 422 (COMM 422) Comm and Technology
  - . COMX 423 (COMM 423) Practical Issues in Organizational Communication
  - . COMX 424 (COMM 424) Risk, Crisis, and Communication
  - . COMX 415 (COMM 451) Intercultural Communication
  - . BMGT 420 (MGMT 420) Leadership & Motivation (for business majors only, MGMT 340 prereq.)
- b. Youth and Adult Development
- . PSYX 230S (PSYC 240S) Developmental Psychology
  - . PSYX 233 (PSYC 245) Fundamentals of Psychology of Aging
  - . SOCI 330 (SOC 330S) Juvenile Delinquency
  - . SOCI 335 (SOC 335) Juvenile Justice System
- c. Human Resources Development and Supervision
- . PSCI 462 (PSC 460) Human Resource Management
  - . PTRM 380 (RECM 380) Recreation Administration and Leadership (PTRM 110S (RECM 110S), PTRM 217S (RECM 217S), and PTRM 230 (RECM 230) prereq..)
  - . COMX 220S (COMM 230S) Intro to organizational Communication
- d. Nonprofit Program Planning
- . PTRM 230 (RECM 230) Programming in Recreation
  - . PTRM 485 (RECM 485) Recreation Planning (for RECM majors only)
  - . BMKT 411 (MKTG 411) Services and Relationship Marketing (for business majors only, MKTG 360 prereq.)
- e. Nonprofit Marketing
- . BMKT 343 (MKTG 363) Integrated Marketing Communications (for business majors only, MKTG 360 prereq.)
  - . BMKT 412 (MKTG 412) Nonprofit Marketing (for business majors only, MKTG 360 prereq.)
- f. Nonprofit Accounting/Financial Management
- . ACTG 201 (ACCT 201) Principles of Financial Accounting (M 115 (MATH 117) prereq.)

## Department of Philosophy

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

### Paul Muench, Chair

Philosophy is the search for an understanding of how the world as a whole hangs together and of how we are to assume our place in the world. Philosophy pursues its goal first of all historically. It is the trustee of the heritage of great philosophical texts, and it engages those texts in conversation with contemporary problems. Second, philosophy turns to the contemporary world directly and tries to illuminate and advance its concerns with ethics and art, with science and technology, with ecology and feminism, with law and medicine. Bachelor of Arts and Master of Arts degrees are offered. More information is available online: [www.cas.umt.edu/phil/](http://www.cas.umt.edu/phil/).

### Special Degree Requirements

To obtain the Bachelor of Arts degree with a major or minor in philosophy, students must complete the following requirements:

#### 1. Grade Requirements

Students must earn a C- (1.67) or better in all courses that count toward either the philosophy major or philosophy minor.

#### 2. Credit Requirements



A. Philosophy Major: Students must complete a minimum of 33 credits in philosophy; at least 21 credits must be in courses numbered 300 and higher.

B. Philosophy Minor: Students must complete a minimum of 18 credits in philosophy; at least 6 credits must be in courses numbered 300 and higher.

### 3. Lower-Division Core Courses

Students who major or minor in philosophy must complete the following lower-division core courses:

PHL 210E (PHIL 300E) Moral Philosophy

PHL 233 (PHIL 210) Introduction to Logic: Deduction

PHL 261Y (PHIL 251) History of Ancient Philosophy

PHL 262Y (PHIL 252) History of Modern Philosophy

### 4. Foreign Language Requirement

Students who major in philosophy must demonstrate third semester proficiency in a foreign language either (i) by completing three semesters of one foreign language, with grades of C- (1.67) or better, or (ii) by receiving an equivalent score on a competence exam. Recommended languages for philosophy are Ancient Greek, Latin, French, and German.

### 5. Designated Writing Course Requirement

Students who major or minor in philosophy must satisfy the Designated Writing Course Requirement by successfully completing PHL 210E (PHIL 300E) Moral Philosophy. Students will not be eligible to take upper-division core courses until they have met this requirement.

### 6. Upper-Division Courses

Students are expected to complete lower-division requirements before beginning upper-division coursework.

A. Philosophy Major: Students must complete at least the following upper-division philosophy courses:

(1) four upper-division core courses (12 credits);

(2) two upper-division electives (6 credits);

(3) capstone course (3 credits).

B. Philosophy Minor: Students must complete at least the following upper-division philosophy courses: two upper-division core courses (6 credits).

### 7. Upper-Division Core Courses

In order to take upper-division core courses students must have satisfied the Designated Writing Course Requirement by successfully completing PHL 210E (PHIL 300E) Moral Philosophy.

A. Philosophy Major: Students must complete at least one course in each of the four core areas (History, Value Theory, Continental Philosophy, Analytic Philosophy).

B. Philosophy Minor: Students must complete at least one course in two of the four core areas (History, Value Theory, Continental Philosophy, Analytic Philosophy).

#### I. History

PHL 462 (PHIL 452) Early Modern Philosophy

PHL 464 (PHIL 453) Kant

PHL 465 (PHIL 461) Plato

PHL 466 (PHIL 463) Aristotle

#### II. Value Theory

PHL 412 (PHIL 443) Ethics and Public Affairs

PHL 422 (PHIL 427E) Environmental Philosophy

PHL 427 (PHIL 444) Topics in Philosophy of Art

PHL 429 (PHIL 441) Philosophy in Literature

PHL 449 History of Moral and Political Philosophy

PHL 450 (PHIL 422E) Contemporary Moral and Political Theory

PHL 455 (PHIL 477) Philosophy of Society and Culture

### III. Continental Philosophy

PHL 467 (PHIL 465) 19th Century Continental Philosophy

PHL 468 (PHIL 467) 20th Century Continental Philosophy

### IV. Analytic Philosophy

PHL 405 (PHIL 469) 20th Century Analytic Philosophy

PHL 406 (PHIL 471) Contemporary Issues in Analytic Philosophy

PHL 445 (PHIL 411) Central Issues in Philosophy of Science

Special Topics courses taught at the 400-level (PHL 491 [PHIL 495]) may count as upper-division core courses provided that they have a suitable content (consult the department advisor).

### 8. **Upper-Division Electives**

In addition to four upper-division core courses, students who major in philosophy must complete at least two upper-division philosophy electives (6 credits). These courses may be either 300- or 400-level.

### 9. **Capstone Course**

Students who major in philosophy must complete PHL 499 (PHIL 480) Senior Seminar. This capstone course is normally taken during the spring semester of senior year.

### 10. **Upper-Division Writing Requirement**

Students who major in philosophy must satisfy the Upper-Division Writing Requirement by successfully completing PHL 499 (PHIL 480) Senior Seminar.

### **Suggested Course of Study**

<b>First Year</b>	<b>A</b>	<b>S</b>
PHL 101 or 102 (PHIL 100, 105) Introduction to Philosophy or Topical Introduction to Philosophy	3*	3*
*Students take one semester in semester they do not take PHL 233		
PHL 233 (PHIL 210) Introduction to Logic: Deduction	3*	3*
*Students take one semester in semester they do not take PHL 101 or 102		
WRIT 101 (ENEX 101) College Writing I	3	-
Foreign language	5	5
HSTR 101H and 102H (HIST 104H, 105H) Western Civilization I and II	4	4
College mathematics course	-	3
Total	15	15
<b>Second Year</b>	<b>A</b>	<b>S</b>
PHL 210E (PHIL 300E) Moral Philosophy (offered autumn and spring)	3*	3*
* Students take one semester		
PHL 261Y (PHIL 251Y) History of Ancient Philosophy	3	-
PHL 262Y (PHIL 252Y) History of Modern Philosophy	-	3
Philosophy elective	3*	3*
*Students take elective in semester they do not take PHL 210E		
Foreign language	4	-
LSH 151L and 152L (LS 151L and 152L) Introduction to the Humanities	4	4
Electives and General Education	-	6
Total	14	16

### **Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### **Philosophy (PHL) - Course Descriptions**

101, 102, 110E, 112E, 114E, 191, 198, 210E, 233, 235, 241H, 261Y, 262Y, 291, 292, 298, 301, 311, 316, 321E, 351, 363, 370, 390, 391, 392, 394, 398, 405, 406, 412, 422, 427, 429, 445, 449, 450, 455, 462, 464, 465, 466, 467, 468, 490, 491, 492, 494, 498, 499, 501, 502, 504, 505, 510, 521, 530, 581, 590, 591, 593, 594, 598, 599

## **Faculty**

### **Professors**

Albert Borgmann, Ph.D., University of Munich

Christopher Preston, Ph.D., University of Oregon

David Sherman, Ph.D., University of Texas, Austin

Deborah Slicer, Ph.D., University of Virginia; M.F.A., University of Virginia (Graduate Advisor)

### **Associate Professors**

Bridget Clarke, Ph.D., University of Pittsburgh

Armond Duwell, Ph.D., University of Pittsburgh

Soazig Le Bihan, Ph.D., University of Nancy and University of Bielefeld (joint program)

Paul Muench, Ph.D., University of Pittsburgh (Chair and Undergraduate Advisor)

### **Assistant Professors**

Matthew Strohl, Ph.D., Princeton University

### **Adjunct Faculty**

Patrick Burke, M.A., University of Montana

David Clark, Ph.D., Purdue University

Deni Elliott, Ed.D., Harvard University

### **Affiliated Faculty**

Hayden Ausland, Classics

Ramona Grey, Political Science

Mark Hanson, Liberal Studies

Beth Hubble, Women's and Gender Studies

Sean O'Brien, Film Studies

### **Emeritus Professors**

Thomas Birch, Ph.D., University of Texas

Thomas P. Huff, Ph.D., Rice University

Ray Lanfear, Ph.D., Rice University

Fred McGlynn, M.A., Northwestern University

Burke A. Townsend, Ph.D., University of Hawaii

Richard E. Walton, M.A., Claremont Graduate School

## Department of Physics and Astronomy

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

### Andrew S. Ware, Chair

Physics is considered to be the most fundamental of all the disciplines in the natural sciences. In physics we try to describe and understand a myriad of physical phenomena ranging from subatomic to cosmological scales by quantifying the relationships among different physical quantities. Not only does physics have its own merit as a challenging but exciting scientific endeavor, it provides the basis for understanding underlying processes in astronomy, biology, chemistry, geology, computer science, engineering, and even in behavioral sciences. Applications of physics are virtually unlimited: computers, communications, energy production, medical technology, and space flight, to name just a few. The Department of Physics and Astronomy offers a range of physics courses from introductory to advanced undergraduate level in both experimental and theoretical physics with computational methods in mind. In addition, we offer introductory to advanced astronomy and astrophysics courses in which astronomical applications of physics are emphasized. These courses deal with the Universe, from the solar system to clusters of galaxies, both theoretically and observationally. The Department of Physics and Astronomy offers the Bachelor of Arts degree with a major in physics. Graduates with this degree are prepared for further study in physics or related fields at the masters or Ph.D. level, as well as a wide variety of technical positions in industry. In addition, the department offers two other degree paths that combine a solid background in the study of physics with in-depth study in other fields. These options allow for specialization in related fields and provide appropriate background for certain employment opportunities and for continued graduate or professional study:

**Astronomy:** The astronomy option provides a thorough study of astronomy and astrophysics as well as a solid background in physics and mathematics. Graduates from this program have gone on to graduate programs in astronomy and astrophysics while others have found career opportunities at national astronomical observatories.

**Computational Physics:** The computational physics option provides a thorough study of computer science and computational physics as well as a solid background in physics and mathematics. Graduates from this program have gone on to graduate programs in physics and computer science while others have found career opportunities in technical fields.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

All majors must meet the Upper-division Writing Expectation by successfully completing PHSX 330 (PHYS 330) or another upper division writing course from the approved list.

### Bachelor of Arts with a major in Physics

Forty-three credits in physics must be earned for the Bachelor of Arts degree with a major in physics. Required courses in physics are: PHSX 215-216N-217N-218N (PHYS 211N-212N-213N-214N) or PHSX 205N-206N-207N-208N (PHYS 111N-113N-112N-114N), PHSX 215-216N-217N-218N (PHYS 211N-212N-213N-214N) strongly recommended, PHSX 301, 311, 322, 327, 343, 320, 423 (PHYS 301, 311, 321, 325, 341, 375, 414), PHSX 425 (PHYS 415) strongly recommended), PHSX 444, 461, and 499 (PHYS 444, 461, 480). M 171, 172, 273, 311 (M ATH 152, 153, 251, 311) also must be taken.

Physics majors must satisfy successfully the general education requirements. An additional requirement is in the completion of at least one computer science language course: PSHX 333 (PHYS 331) (strongly recommended), or CSCI 100 or 135 (CS 101, 131). Recommended courses in other departments include M 317, 412, 418 (MATH 317, 412,

418).

**Bachelor of Arts with a major in Physics: Astronomy Option**

During their first two years, students in the astronomy option should take ASTR 142N (or 132N and 135N), PHSX 215N-216N-217N-218N (PHYS 211N-212N-213N-214N), or 205N-206N-207N-208N (PHYS 111N-113N-112N-114N), PHSX 343 (PHYS 341), and M 171, 172, 273 (MATH 152, 153, and 251), M 151 (MATH 121), if necessary). Forty-seven credits in astronomy and physics courses are required for the B.A. degree in physics with astronomy option. Required courses in physics are: PHSX 215N-216N-217N-218N, 301, 311, 343, 461, 499 (PHYS 211N-212N or 213N-214N, 301, 311, 341, 461, 480) plus at least three courses from the following: PHSX 327, 320, 423, 425, 446 and 462 (PHYS 325, 375, 414, 415, 446, and 462). Required astronomy courses are: 142N (or 132N and 135N), 353, 363, and 365 (351 and 362 recommended). At least one lab course must be taken from ASTR 362, PHSX 322 or 444 (PHYS 321 or 444). M 171, 172, 273, and 311 (MATH 152, 153, 231, 311) also must be taken. Physics with Astronomy option majors must satisfy successfully the general education requirements. An additional requirement is in the completion of at least one computer science language course: PSHX 333 (PHYS 331) (strongly recommended), or CSCI 100 or 135 (CS 101, 131).

**Bachelor of Arts with a major in Physics: Computational Physics Option:**

The purpose of the computational physics option is to provide a thorough background in both physics and computer science and to inculcate a deeper understanding of their goals and methods. A student earns the computational physics option by completing at least 50 credits in the two disciplines, 30 of these credits in physics courses and 20 of these in computer science courses. The following courses are required: Physics 215N-216N-217N-218N (PHYS 211N-212N-213N-214N), or 205N-206N-207N-208N (PHYS 111N-113N-112N-114N), PHSX 301, 311, 333,343,320,423, and 499 (PHYS 301, 311, 331, 341, 375, 414, and 480) (PHSX 322, 444 and 423 (PHYS 321, 444, and 415) are highly recommended); Computer Science 135-136, 232, 332 (CS 131-132, 241, 332), and seven credits of computer science electives selected from courses numbered 200 and above CSCI 205, 361, 415, and 477 (CS 242, 281, 315E and 477) recommended); M 171, 172, 273, 311 and 325 (MATH 152, 153, 251,311, 325) M 307, STAT 458 and STAT 341 (Math 305, 448 and 341) recommended). Physics with Computational Physics option majors must satisfy successfully the general education requirements.

**Teacher Preparation in Physics**

**Major Teaching Field of Physics:** For an endorsement in the major teaching field of Physics, a student must complete the following course requirements: 35 credits in Physics including Physics 205N-206N-207N-208N or 215N-216N-217N-218N (PHYS 111N-113N-112N-114N or 211N-214N) and PHSX 301, 327, 330, 343, 320, 423, 461, and 499 (301, 325, 330, 341, 375, 414, 461, and 480). Also required are Astronomy 131N-132N; M 171, 172, 273, 311, STAT 216 or 341 (MATH 152, 153, 251, 311, 241 or 341); Computer Science 100 or 135 (CS 101 or 131); EDU 497 (C&I 426); CHMY 121N and 485 (CHEM 151N and 485); BIOB 170N or 160N (BIOL 108N or 110N) or BIOO 105N (BIOL120N) or BIOE 172N (BIOL 221N); GEO 101N-102N (GEOS 100N-101N); and ENSC 105 N (EVST 101N) or Science 350 or GEO 105 (GEOS 105) Or GEO 108 (GEOS 108). Students also must gain admission to Teacher Education Program and meet the requirements for teaching licensure (see the College of Education section of this catalog).

**Minor Teaching Field of Physics:** For an endorsement in the minor teaching field of Physics, a student must complete Physics 205N-206N-207N-208N or 215N-216N-217N-218N (111N-113N-112N-114N or 211N-212N-213N-214N), PHSX 327, 330, 343 and 320 (PHYS 325, 330, 341 and 375). Also required are Astronomy 131N or 132N; BIOB 170N or 160N (BIOL 108N or 110N) or BIOO 105N (BIOL120N) or BIOE 172N (BIOL 121N); CHMY 121N, 485 (CHEM 151N, 485); M 171, 172, 273, 311, STAT 216 or 341 (MATH 152, 153, 251, 311, 241 or 341); CSCI 100 135, (CS 101, 131); and EDU 497 (C&I 426). Students also must gain admission to Teacher Education Program and meet the requirements for teaching licensure (see the College of Education section of this catalog).

**Suggested Course of Study**

**Bachelor of Arts with a Major in Physics**

For physics majors with four years of college preparatory mathematics or exemption from M 151 (MATH 121) by

## examination:

<b>First Year</b>		<b>A S</b>
PHSX 101 Freshman Physics Experience		1 -
*WRIT 101 (ENEX 101) College Writing I		3 -
M 171-172 (MATH 152-153) Calculus I, II		4 4
PHSX 215N-216N, 217N-218N (PHYS 211N-212N, 213N-214N) Fundamentals of Physics		5 5
Electives and General Education		2 6
Total		15 15
*Semester of enrollment depends on beginning letter of student's last name.		
<b>Second Year</b>		<b>A S</b>
M 273 (MATH 251) Multivariable Calculus		4 -
PHSX 301 (PHYS 301) Introduction to Theoretical Physics		- 3
PHSX 311 (PHYS 311) Oscillations and Waves		2 -
PHSX 327 (PHYS 325) Optics		- 3
PHSX 343 (PHYS 341) Modern Physics		3 -
Foreign Language*		5 5
Electives and General Education		1 4
Total		15 15
*Can be waived with appropriate testing through MCLL.		
<b>Third Year</b>		<b>A S</b>
M 311, 412 (MATH 311, 412) Ordinary Differential Equations/Systems, Partial Differential Equations		3 3
PHSX 322 (PHYS 321) Electronics for Scientists		3 -
PHSX 330 (PHYS 330) Communicating Physics		- 3
PHSX 320 (PHYS 375) Classical Mechanics		- 3
PHSX 423-425 (PHYS 414-415) Electromagnetism		3 3
PHSX 446 (PHYS 446) Thermodynamics and Statistical Mechanics *		3 -
Electives and General Education		3 3
* PHSX 446 (PHYS 446) and PHSX 330 (PHYS 330) are offered every other year and may be taken in the third or fourth year.		
Total		15 15
<b>Fourth Year</b>		<b>A S</b>
PHSX 333 (PHYS 331) Computational Physics*		3 -
PHSX 444 (PHYS 444) Advanced Physics Laboratory		- 3
PHSX 461-462 (PHYS 461-462) Quantum Mechanics I & II		3 3
PHSX 491 (PHYS 463) Selected Topics or PHSX 462 (PHYS 462) Quantum Mechanics II		- 3
PHSX 499 (PHYS 480) Senior Capstone Seminar		1 -
Electives and General Education		8 9
* PHSX 446 (PHYS 446) and PHSX 333 (PHYS 330) are offered every other year and may be taken in the third or fourth year.		
Total		15 15

Physics majors with fewer than four years of college preparatory mathematics (students who begin M 171 (MATH 152) in the second semester) can use this suggested course of study for physics courses:

<b>First Year</b>		<b>A S</b>
PHSX 101 Freshman Physics Experience		1 -
PHSX 141N (PHYS 141N) Relativity: From Galileo to Einstein and Beyond		- 3
CSCI 100 (CS 101) or CSCI 135 (CS 131) Fundamentals of Computer Science		- 3
*WRIT 101 (ENEX 101) College Writing I		3 -
M 151 (MATH 121) Precalculus		4 -
M 171 (MATH 152) Calculus I		- 4
Foreign language+		5 5
Electives and General Education		2 -
Total		15 15
* Semester of enrollment depends on beginning letter of students last name.		
+Can be waived with appropriate testing through MCLL.		
<b>Second Year</b>		<b>A S</b>
M 172 (MATH 153) Calculus II		4 -
M 273 (MATH 251) Calculus III		- 4
PHSX 215N-216N, 217N-218N (PHYS 211N-212N, 213N-214N) Fundamentals of Physics		5 5
Electives and General Education		6 6
Total		15 15
<b>Third Year</b>		<b>A S</b>
M 311, 412 (MATH 311, 412) Ordinary Differential Equations/Systems, Partial Differential Equations		3 3
PHSX 311 (PHYS 311) Oscillations and Waves		2 -
PHSX 322 (PHYS 321) Electronics for Scientists		3 -
PHSX 327 (PHYS 325) Optics		- 3
PHSX 330 (PHYS 330) Communicating Physics		- 3
PHSX 343 (PHYS 341) Modern Physics		3 -

PHSX 301 (PHYS 301) Mathematical Methods for Physical Scientists	-	3
Electives and General Education	3	-
* PHSX 330 (PHYS 330) is offered every other year and may be taken in the third or fourth year.	4	3
Total	15	15

**Fourth Year**

	<b>A</b>	<b>S</b>
PHSX 320 (PHYS 375) Classical Mechanics	-	3
PHSX 423-425 (PHYS 414-415) Electromagnetism	3	3
PHSX 444 (PHYS 444) Advanced Physics Laboratory	-	3
PHSX 446 (PHYS 446) Thermodynamics and Statistical Mechanics *	3	-
PHSX 461-462 (PHYS 461-462) Quantum Mechanics I, II	3	3
PHSX 499 (PHYS 480) Senior Capstone Seminar	1	-
Electives and General Education	5	3
Total	15	16

\* PHSX 446 (PHYS 446) is offered every other year and may be taken in the third or fourth year.

**Bachelor of Arts with a Major in Physics and an Option in Astronomy**

For physics with astronomy option majors with four years of college preparatory mathematics or exemption from M 151 (MATH 121) by examination:

	<b>First Year</b>	<b>A</b>	<b>S</b>
ASTR 142N The Evolving Universe		-	4
PHSX 101 Freshman Physics Experience		1	-
PHSX 215N-216N, 217N-218N (PHYS 211N-212N, 213N-214N) Fundamentals of Physics		5	5
WRIT 101 (ENEX 101) Composition*		3	-
M 171-172 (MATH 152-153) Calculus I, II		4	4
Electives and General Education		2	2
Total		15	15

\* WRIT 101 (ENEX 101) is required unless exempted by testing. Semester of enrollment depends on beginning letter of student's last name.

	<b>Second Year</b>	<b>A</b>	<b>S</b>
PHSX 311 (PHYS 311) Oscillations and Waves		2	-
PHSX 343 (PHYS 341) Modern Physics		3	-
PHSX 301 (PHYS 301) Introduction to Theoretical Physics		-	3
PHSX 327 (PHYS 325) Optics		-	3
M 273 (MATH 251) Multivariable Calculus		4	-
Foreign language+		5	5
General Education		7	5
Total		15	15

\*+Can be waived with appropriate testing through MCLL.

	<b>Third Year</b>	<b>A</b>	<b>S</b>
ASTR 362 Observational Astronomy*		3	-
ASTR 363-365 Stellar Astronomy and Astrophysics*		3	3
M 311, 412 (MATH 311, 412) Ordinary Differential Equations/Systems, Partial Differential Equations		3	3
PHSX 330 (PHYS 330) Communicating Physics*		-	3
Physics electives, chosen from PHSX 320 (PHYS 375), PHSX 327 (PHYS 320), PHSX 423-425 (PHYS 414-415), or PHSX 446 (PHYS 446)		3	3
General Education or electives		3	3
Total		15	15

	<b>Fourth Year</b>	<b>A</b>	<b>S</b>
ASTR 351 Planetary Science*		3	-
ASTR 353 Galactic Astrophysics and Cosmology*		-	3
PHSX 333 (PHYS 331) Computational Physics+		3	-
PHSX 461 (PHYS 461) Quantum Mechanics I		3	-
Physics electives, chosen from PHSX 320 (PHYS 375), PHSX 327 (PHYS 320), PHSX 423-425 (PHYS 414-415), PHSX 446 (PHYS 446)		-	3
PHSX 499 (PHYS 480) Senior Capstone Seminar		1	-
General Education or electives		8	9
Total		15	15

\*Upper-division astronomy courses can be taken in a different order, as they are offered only in alternate years.

+PHSX 333 (PHYS 330) is offered every other year and may be taken in the third or fourth year.

Physics with astronomy option majors with fewer than four years of college preparatory mathematics (students who begin M 171 (MATH 152) in the second semester) can use this suggested course of study for physics courses:

	<b>First Year</b>	<b>A</b>	<b>S</b>
ASTR 142N The Evolving Universe		-	4
PHSX 101 Freshman Physics Experience		1	-
CSCI 100 or 135 (CS 101or 131) Intro to Programming or Fundamentals of Computer Science I		3	-
WRIT 101 (ENEX 101) Composition*		3	-
M 151 (MATH 121) Precalculus		4	-

M 171 (MATH 152) Calculus I	- 4
Electives and General Education	2 2
Total	15 15

\* WRIT 101 (ENEX 101) is required unless exempted by testing. Semester of enrollment depends on beginning letter of student's last name.

#### Second Year

M 172, 273 (MATH 153, 251) Calculus II, Multivariable Calculus	A S 4 4
PHSX 215N-216N, 217N-218N (PHYS 211N-212N, 213N-214N) Fundamentals of Physics with Calculus	5 5
Foreign language+	5 5
Electives and General Education	1 1
Total	15 15

+Can be waived with appropriate testing through MCLL.

#### Third Year

ASTR 351 Planetary Science or *	A S 3 -
ASTR 353 Galactic Astrophysics and Cosmology*	- 3
ASTR 362 Observational Astronomy*	3 -
M 311 (MATH 311) Ordinary Differential Equations/ Systems	3 -
PHSX 301 (PHYS 301) Introduction to Theoretical Physics	- 3
PHSX 327 (PHYS 325) Optics	- 3
PHSX 311 (PHYS 311) Oscillations and Waves	2 -
PHSX 330 (PHYS 330) Communicating Physics*	- 3
PHSX 343 (PHYS 341) Modern Physics	3 -
Electives and General Education	1 3
Total	15 15

#### Fourth Year

ASTR 363-365 Stellar Astronomy and Astrophysics*	A S 3 3
PHSX 461 (PHYS 461) Quantum Mechanics I	3 -
Physics electives, chosen from PHSX 320 (PHYS 375), PHSX 327 (PHYS 320), PHSX 423-425 (PHYS 414-415), PHSX 446 (PHYS 446) and PHSX 462 (PHYS 461)	3 3
PHSX 499 (PHYS 480) Senior Capstone Seminar	1 -
General Education or electives	5 9
Total	15 15

\*Upper-division astronomy courses can be taken in a different order, as they are offered only in alternate years.

#### Bachelor of Arts with a Major in Physics with an Option in Computational Physics

For physics with computational physics option majors with four years of college preparatory mathematics or exemption from M 151 (MATH 121) by examination:

#### First Year

CSCI 135-136 (CS 131-132) Fundamentals of Computer Science I, II	A S 3 3
WRIT 101 (ENEX 101) College Writing I*	- 3
M 171, 172 (MATH 152-153) Calculus I, II	4 4
PHSX 101 Freshman Physics Experience	1 -
PHSX 215N-216N, 217N-218N (PHYS 211N-212N, 213N-214N) Fundamentals of Physics with Calculus*	5 5
Electives and General Education	2 -
Total	15 15

\* Semester of enrollment depends on beginning letter of student's last name.

#### Second Year

CSCI 232 (CS 241) Data Structure and Algorithms	A S 4 -
M 225 (MATH 225) Introduction to Discrete Math	3 -
M 273 (MATH 251) Multivariable Calculus	- 4
PHSX 301 (PHYS 301) Introduction to Theoretical Physics	- 3
PHSX 343 (PHYS 341) Fundamentals of Modern Physics	3 -
Foreign language+	5 5
Electives and General Education	- 3
Total	15 15

+Can be waived with appropriate testing through MCLL.

#### Third Year

CSCI 205 (CS 242) Programming Languages w/C/C++	A S - 4
CSCI 361 (CS 281) Computer Architecture	3 -
M 311 (MATH 311) Ordinary Differential Equations/Systems	3 -
M 325 (MATH 325) Discrete Mathematics	- 3
PHSX 311 (PHYS 311) Oscillations and Waves	2 -
PHSX 322 (PHYS 321) Electronics for Scientists	3 -
PHSX 333 (PHYS 331) Computational Physics #	3 -
PHSX 320 (PHYS 375) Classical Mechanics	- 3
PHSX 330 (PHYS 330) Methods of Communicating Physics#	- 3
Electives and General Education	3 2
Total	15 15



# PHSX 333 (PHYS 331) and PHSX 330 (PHYS 330) are offered every other year and may be taken in the third or fourth year.

<b>Fourth Year</b>		<b>A S</b>
CSCI 332 (CS 332) Design/Analysis of Algorithms		3 -
CSCI 415 (CS 415E) Computers, Ethics, and Society*		- 3
PHSX 423-425 (PHYS 414-415) Electricity & Magnetism I, II *		3 3
PHSX 499 (PHYS 480) Senior Capstone Seminar		1 -
Electives and General Education		8 9
Total		15 15

\* CSCI and PHSX courses marked with \* are recommended. Other courses in physics and computer science can be substituted for them.

Physics with computational physics option majors with fewer than four years of college preparatory mathematics (students who begin M 171 (MATH 152) in the second semester) can use this suggested course of study for physics courses:

<b>First Year</b>		<b>A S</b>
CSCI 135-136 (CS 131-132) Fundamentals of Computer Science I, II		3 3
WRIT 101 (ENEX 101) College Writing I*		- 3
M 151 (MATH 121) Precalculus		4 -
M 171 (MATH 152) Calculus I		- 4
PHSX 101 Freshman Physics Experience		1 -
Foreign Language+		5 5
Electives and General Education		2 -
Total		15 15

\* Semester of enrollment depends on beginning letter of student's last name.

+ Can be waived with appropriate testing through MCLL.

<b>Second Year</b>		<b>A S</b>
CSCI 232 (CS 241) Data Structure and Algorithms		4 -
CSCI 205 (CS 242) Programming Languages w/C/C++		- 4
M 225 (MATH 225) Introduction to Discrete Math		3 -
M 172 (MATH 153) Calculus II		4 -
M 273 (MATH 251) Multivariable Calculus		- 4
PHSX 215N-216N, 217N-218N (PHYS 211N-212N, 213N-214N) Fundamentals of Physics with Calculus*		5 5
Electives and General Education		- 2
Total		16 15

<b>Third Year</b>		<b>A S</b>
CSCI 332 (CS 332) Design/Analysis of Algorithms		3 -
M 311 (MATH 311) Ordinary Differential Equations/Systems		3 -
M 325 (MATH 325) Discrete Mathematics		- 3
PHSX 311 (PHYS 311) Oscillations and Waves		2 -
PHSX 343 (PHYS 341) Fundamentals of Modern Physics		3 -
PHSX 333 (PHYS 331) Computational Physics #		3 -
PHSX 301 (PHYS 301) Introduction to Theoretical Physics		- 3
PHSX 330 (PHYS 330) Methods of Communicating Physics#		- 3
Electives and General Education		1 6
Total		15 15

# PHSX 333 (PHYS 331) and PHSX 330 (PHYS 330) are offered every other year and may be taken in the third or fourth year.

<b>Fourth Year</b>		<b>A S</b>
CSCI 415 (CS 415E) Computers, Ethics, and Society*		- 3
PHSX 322 (PHYS 321) Electronics for Scientists		3 -
PHSX 320 (PHYS 375) Classical Mechanics		- 3
PHSX 423-425 (PHYS 414-415) Electricity & Magnetism I, II*		3 3
PHSX 499 (PHYS 480) Senior Capstone Seminar		1 -
Electives and General Education		8 6
Total		15 15

\* CSCI and PHSX courses marked with \* are recommended. Other courses in physics and computer science can be substituted for them.

#### Requirements for a Minor in Astronomy

To earn a minor in astronomy the student must complete PHSX 205N-206N-207N-208N or 215N-216N-217N-218N (PHYS 111N-113N-112N-114N or 211N-212N-213N-214N); ASTR 131N- 132N (ASTR 134N-135N strongly recommended); and eight credits from ASTR 351, 353, 362, or 363-364. (Mathematics prerequisites for the astronomy minor are M171, 172, and 273 (MATH 152, 153, and 251)).

#### Requirements for a Minor in Physics

1) To earn a minor in physics the student must complete PHSX 215N-216N-217N-218N (PHYS 211N-212N-213N-214N) (or PHSX 205N-206N-207N-208N (PHYS 111N-112N-113N-114N)); PHSX 301 (PHYS 301);

2) Eleven additional physics credits, at least eight of which must be upper division. (Mathematics prerequisites for the physics minor are M 171, 172, 273, and 311 (MATH 152, 153, 251, and 311). Possible concentrations for the eleven additional physics credits include:

**Classical Physics:**

- PHSX 311 (PHYS 311) Oscillations and Waves 2 cr
- PHSX 327 (PHYS 325) Optics 3 cr
- PHSX 320 (PHYS 375) Classical Mechanics 3 cr
- PHSX 423 (PHYS 414) Electricity and Magnetism I 3 cr

**Quantum Physics**

- PHSX 311 (PHYS 311) Oscillations and Waves 2 cr
- PHSX 343 (PHYS 341) Fundamentals of Modern Physics 3 cr
- PHSX 461 (PHYS 461) Quantum Mechanics I 3 cr
- PHSX 462 (PHYS 462) Quantum Mechanics II 3 cr

**Experimental Physics**

- PHSX 322 (PHYS 321) Electronics for Scientists 3 cr
- PHSX 327 (PHYS 325) Optics 3 cr
- PHSX 343 (PHYS 341) Modern Physics 3 cr
- PHSX 444 (PHYS 444) Advanced Physics Lab 3 cr

**Electrical and Computational Physics**

- PHSX 322 (PHYS 321) Electronics for Scientists 3 cr
- PHSX 330 (PHYS 330) Communicating Physics 3 cr
- PHSX 333 (PHYS 331) Computational Physics 3 cr
- PHSX 423 (PHYS 414) Electricity and Magnetism I 3 cr

**Engineering Physics**

- PHSX 291 (PHYS 295) Engineering Mechanics - Statics 3 cr
- PHSX 311 (PHYS 311) Oscillations and Waves 2 cr
- PHSX 322 (PHYS 321) Electronics for Scientists 3 cr
- PHSX 446 (PHYS 446) Thermodynamics & Stat. Mechanics 3 cr

These concentrations are meant to be suggestive only. All meet the Minor in Physics requirements of eleven additional credits with at least eight of these being upper-division. For additional possibilities, a student can consult with a physics advisor.

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Astronomy (ASTR) - Course Descriptions**

131N, 132N, 134N, 135N, 142N, 191, 198, 351, 353, 362, 363, 365, 391, 392, 398, 492, 494, 499

**Physics (PHSX) - Course Descriptions**

101, 121N, 122N, 123N, 124N, 141N, 191, 192, 198, 205N, 206N, 207N, 208N, 215N, 216N, 217N, 218N, 251, 291, 292, 301, 311, 320, 322, 327, 330, 333, 343, 391, 392, 423, 425, 444, 446, 461, 462, 491, 492, 499, 595, 597, 598, 599

**Faculty****Professors**

Eijiro Uchimoto, Ph.D., University of Wisconsin, 1988

Andrew S. Ware, Ph.D., University of California, San Diego, 1992 (Chair)

**Associate Professors**

Daniel B. Reisenfeld, Ph.D., Harvard University, 1998

Michael L. Schneider, Ph.D., University of Wisconsin, 2003

**Assistant Professor**

Nate McCrady, Ph.D., University of California - Berkeley, 2005

**Adjunct Associate Professors**

David E. Andrews, Ph.D., Cornell University 1972

Bradford L. Halfpap, Ph.D., Arizona State University, 1987

**Adjunct Assistant Professors**

Alexander P. Bulmahn, Ph.D., University of Iowa, 2010

Benjamin N. Grossman, Ph.D., Oklahoma State University, 2010

**Lecturer/Research Assistant Professor**

Diane S. Friend, M.S., The University of Montana, 2000

**Research Assistant Professor**

Paul H. Janzen, Ph.D., Harvard University, 2002

**Emeritus Professors**

Richard J. Hayden, Ph.D., University of Chicago, 1948

James P. Jacobs, Ph.D., University of Washington, 1991

Mark J. Jakobson, Ph.D., University of California, Berkeley, 1951

Randolph H. Jeppesen, Ph.D., New Mexico State University, 1980

**Department of Political Science**

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

**Ramona Grey, Chair**

From the time of Plato and Aristotle, the study of politics has been concerned with how human communities use power to shape the lives of individuals. Students of politics observe the world's political institutions, from local governments to international organizations. They are interested in the quality of political leadership, the values which underlie public affairs, the political and legal processes used to make governmental decisions, and the wisdom of policies. Politics is the continuing dialogue about the best way for communities to govern themselves.

The department offers a varied undergraduate curriculum covering domestic, foreign, and international politics. By meeting requirements outlined below, a student may earn a bachelor degree in political science or in political science-history; a minor in political science or global public health; or a bachelor degree in political science with an option in American politics, international relations and comparative politics, public administration, non-profit administration, international development studies, or public law. A Master of Arts degree in political science and a Master of Public Administration degree are also offered.

The scope of the faculty's interest and research is wide. They bring special insights gained through study and residence in Europe, Russia, Africa, Central Asia, India, the Far East and Latin America, as well as in Montana and Washington, D.C. All members of the department teach introductory and advanced courses.

Courses offered in the department are designed to: (1) assist students to secure a broad liberal education and to equip them with the foundations for American citizenship; (2) provide undergraduate preparation for those students who propose to continue study at the graduate level with the ultimate goal of college teaching and research; (3) offer a broad program of training for those students who plan careers in government or politics; (4) assist in preparing students for careers in teaching at both the elementary and secondary levels; (5) provide a sound background for those students who intend to enroll in law and other professional schools.

The major fields of political science are (1) American government and politics with national, state and local government, politics, and public law as sub-fields; (2) public administration; (3) political theory; (4) comparative government; (5) international relations, organization and law. Majors are eligible for membership in Pi Sigma Alpha, the national political science honorary and are active in student political activities. The Department of Political Science secures a number of legislative and administrative internships in state and local government each year. Internships and other learning opportunities in Washington, D.C., are also available.

#### **Special Degree Requirements**

Refer to graduation requirements listed previously in the catalog. See index.

#### **All majors must meet the Upper-division Writing Expectation by successfully completing PSCI 400.**

**Political Science Major:** Students majoring in political science must take a minimum of 37 credits of political science, including PSCI 210S (PSC 100S), 220S (PSC 120S), 230X (PSC 130E), 250E (PSC 150E); and one 300-400 level course in four of the five major fields listed above. Twenty-one of the 37 credits must be in upper-division courses. No more than 7 credits of independent study (PSCI 492 (PSC 496)) and internship (PSCI 498 (PSC 498)) combined may count toward the 37 required credits. In addition, no more than 15 total credits in special topics courses (e.g., PSCI 320 (PSC 381), 391 (PSC 395)) may count toward the 37 required credits.

**Political Science Major with an Option in American Politics:** A student may earn a major in political science with an option in American politics by completing 40 credits in political science, including: PSCI 210S (PSC 100S), 220S (PSC 120S), 230X (PSC 130E), 250E (PSC 150E); one 300-400 level course in four of the five major fields of political science listed previously; and five of the following courses: PSCI 340 (PSC 383), 341, 342, (PSC 341, 342) 344 (PSC 364), 346 (PSC 366), 347 (PSC 387), 348, 352 (PSC 352), PSCI 365 (PSC 365), 370, 440 (PSC 483), 443, 444, 445, 468. Courses used to complete the upper-division requirement of this option also fulfill the 300-400 level requirement in the respective major fields of political science.

**Political Science Major with an Option in International Relations and Comparative Politics:** A student may earn a major in political science with an option in international relations and comparative politics by completing 40 credits in political science, including: PSCI 210S (PSC 100S), 220S (PSC 120S), 230X (PSC 130E), 250E (PSC 150E); one 300-400 level course in four of the five major fields of political science listed previously; and three courses from each of the following groups: a) PSCI 320 (PSC 381), 321 (PSC 321), 322 (PSC 321H), 324, 325, 326, 327, 328, 329 (PSC 324, 325, 326, 327, 328, 329), 420 (PSC 481) 421 (PSC 420), 422; and b) PSCI 330 (PSC 382), 332, 334, 335 (PSC 334, 335), 336, 337 (PSC 337), 430 (PSC 482), 431, 433 (PSC 431, 433), 432 (PSC 430), 463 (PSC 463), Strongly recommended are: a) minimum of two years of foreign language study; b) internship/study-abroad program. Courses used to complete

the upper-division requirement of this option also fulfill the 300-400 level requirement in the respective major fields of political science.

**Political Science Major with an Option in Public Administration:** A student may earn a major in political science with an option in public administration by completing a minimum of 40 credits in political science, including: PSCI 210S (PSC 100S), 220 (PSC 120S), 230X (PSC 130E), 250E (PSC 150E); one 300-400 level course in four of the five major fields of political science listed previously; 361, and three of the following courses: PSCI 344 (PSC 364), 360 (PSC 385), 462 (PSC 460), 461, 463, 466, 467, 468, 460 (PSC 485), 479. A legislative or administrative internship is strongly recommended. Courses used to complete the upper division requirement of this option also fulfill the 300-400 level requirement in the respective major fields of political science.

**Political Science Major with an Option in Public Law:** A student may earn a major in political science with an option in public law by completing a minimum of 40 credits in political science, including PSCI 210S (PSC 100S), 220 (PSC 120S), 230X (130E), 250E (PSC 150E); one 300-400 level course in four of the five major fields of political science listed previously; PSCI 370, and four of the following courses: 352, 421 (PSC 420), 433, 462 (PSC 460), 461, 471, 474 (PSC 472). Courses used to complete the upper-division requirement of this option also fulfill the 300-400 level requirement in the respective major fields of political science.

#### **Political Science Teaching Major**

Students may earn a teaching major in political science (government) by completing the requirements for the BA in political science, to include the following: PSCI 210, 220, 230, 250, 400; one 300-400 level course in four of the major fields listed above; four upper-division elective courses; and EDU 497 (C&I 428). All requirements for the political science major apply. Students with a teaching major in political science must also complete a teaching major or minor in a second field. For the political science teaching major, students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. Students may also earn a teaching minor in political science. See the Department of Curriculum & Instruction for more information.

#### **Political Science/History Combined Major**

This major is intended solely for students who want to be licensed to teach government, history, and one additional social science at the middle and high school levels. Requirements for the combined political science/history major are as follows: in political science, a minimum of 30 credits, including: PSCI 210, 220, 230, 250, three upper-division elective courses in American government or public law, and three government upper-division elective courses in comparative or international relations; in history, a minimum of 31 credits, including: HSTR 101 or 102, HSTA 101 and 102, HSTR 200, HSTA 255, one elective course in world history, three upper-division elective courses to include at least one American and one European course, and one HSTA/HSTR 400-level approved writing course; in one additional social science, a minimum of 9 elective credits in economics or geography or psychology or sociology; and EDU 497 (C&I 428). Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. Students are eligible for a teaching license in social studies broadfield. See the Department of Curriculum & Instruction for more information.

#### **Certificate in Nonprofit Administration (Online)**

The certificate in nonprofit administration is designed for students wishing to develop professional competencies relating to nonprofit management. To earn a certificate the student must complete a minimum of 16 credits as follows:

a) 12 credits from among the following online courses:

- PSCI 401 Nonprofit Human Resource Management – 2 credits
- PSCI 402 Nonprofit Volunteer Management – 2 credits
- PSCI 403 Nonprofit Program Planning and Evaluation – 2 credits
- PSCI 405 Nonprofit Advocacy and Public Policy – 2 credits
- PSCI 406 Nonprofit Board Management – 2 credits

- PSCI 407 Nonprofit Grant Writing – 2 credits
- PSC 408 Nonprofit Fundraising – 2 credits
- PSCI 409 Nonprofit Financial Management – 2 credits
- PSCI 410 Nonprofit Strategic Planning – 2 credits

b) 4 credits of PSCI 498 or 598 Internship. The internship component includes at least 350 hours of volunteer or paid hours working directly with a nonprofit organization. If the student works at a nonprofit organization, professional work that is aligned with the program focus will qualify as internship credit. Students will complete various reflection activities, including a formal, 10-page paper documenting their learning throughout the internship experience. For questions about the internship, contact the Office for Civic Engagement.

All courses taken in pursuit of the certificate must be taken for graded credit, and a grade of C or above must be achieved in order to receive credit for any course.

This program is offered on a self-supporting basis. To learn about fee schedules and how to register, visit the web site for UMOOnline.

### Suggested Course of Study

#### Political Science Major:

<b>First Year</b>		<b>A</b>	<b>S</b>
PSCI 210S (PSC 100S) Introduction to American Government	3	-	
PSCI 220S (PSC 120S) Introduction to Comparative Government	-	3	
Seven General Education courses	12	9	
One elective	-	3	
	15	15	
<b>Second Year</b>		<b>A</b>	<b>S</b>
PSCI 230X (PSC 130E) Introduction to International Relations	3	-	
PSCI 250E (PSC 150E) Introduction to Political Theory	-	3	
Seven General Education courses	12	9	
One elective	-	3	
	15	15	
<b>Third Year</b>		<b>A</b>	<b>S</b>
Four PSCI 300-400-level courses	6	6	
Six electives	9	9	
	15	15	
<b>Fourth Year</b>		<b>A</b>	<b>S</b>
Four PSCI 300-400-level courses	6	6	
Six electives	9	9	
	15	15	

#### Political Science with American Politics Option:

##### First /Second Year: Same as for PSCI major above

<b>Third Year</b>		<b>A</b>	<b>S</b>
Three 300-400-level American Politics courses	6	3	
Two other 300-400-level PSCI courses	3	3	
Five electives	6	9	
	15	15	
<b>Fourth Year</b>		<b>A</b>	<b>S</b>
Two 300-400-level American Politics courses	3	3	
Two other 300-400-level PSCI courses	3	3	
Six electives	9	9	
	15	15	

#### Political Science with International Relations and Comparative Politics Option:

##### First/Second Year: Same as for PSCI major above

Recommend beginning foreign language study as part of General Education courses.

<b>Third Year</b>		<b>A</b>	<b>S</b>
Three 300-400-level International and Comparative courses	6	3	
Two other 300-400-level PSCI courses	3	3	
Five electives	6	9	
	15	15	

<b>Fourth Year</b>	<b>A</b>	<b>S</b>
Three 300-400-level International and Comparative courses	6	3
One other 300-400-level PSCI course	3	-
Six electives	6	12
	15	15

**Political Science with Public Administration Option:**

<b>First/Second Year: Same as for PSCI major above</b>		
<b>Third Year</b>	<b>A</b>	<b>S</b>
PSCI 361 Public Administration	3	-
One 300-400-level public administration course	-	3
Two other 300-400-level PSCI courses	3	3
Six electives	9	9
	15	15
<b>Fourth Year</b>	<b>A</b>	<b>S</b>
One 300-400-level public administration course	3	-
PSCI 462 (PSC 460) Human Resource Management	-	3
Three other 300-400-level PSCI courses	6	3
Five electives	6	9
	15	15

**Political Science with Public Law Option:**

<b>First/Second Year: Same as for PSCI major above</b>		
<b>Third Year</b>	<b>A</b>	<b>S</b>
PSCI 370 Courts and Judicial Politics	-	3
Two 300-400-level Public Law courses	3	3
Two other 300-400-level PSCI courses	3	3
Five electives	9	6
	15	15
<b>Fourth Year</b>	<b>A</b>	<b>S</b>
Two 300-400-level Public Law courses	3	3
Two other 300-400-level PSCI courses	3	3
Six electives	9	9
	15	15

**Requirements for a Minor**

To earn a minor in political science the student must complete a minimum of 21 credits of political science, including PSCI 210S (PSC 100S), 220S (PSC 120S), 230X (PSC 130E), 250E (PSC 150E); and three additional 300-400-level courses in three of the five major fields of political science listed previously. Nine of the 21 credits must be in 300-400-level courses.

To earn a minor in Global Public Health, the student must complete PSCI 227, Issues in Global Public Health, with a grade of C- or higher and must complete 3 core courses, two of which can be PSCI 431, Politics of Global Migration, and PSCI 463, Development Administration, with a grade of C- or higher.

To earn a minor in International Development Studies, the student must complete 3 core courses, two of which can be PSCI 431, Politics of Global Migration, and PSCI 463, Development Administration, with a grade of C- or higher.

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Political Science (PSCI) - Course Descriptions**

191, 192, 210S, 220S, 227, 230E, 230X, 250E, 320, 321, 322H, 324, 325, 326, 327, 328, 329, 330, 332, 334, 335, 336, 337, 340, 341, 342, 344, 346, 347, 348, 350, 352, 354, 355, 357, 360, 361, 365, 370, 391, 400, 401, 402, 403, 405, 406, 410, 411, 412, 413, 420, 421, 422, 430, 431, 432, 433, 440, 443, 444, 445, 448, 449, 450, 451, 452, 453, 460, 461, 462, 463, 466, 467, 468, 469, 471, 474, 475X, 491, 492, 494, 498, 501, 502, 503, 504, 505, 520, 521, 522, 523, 524, 525, 526, 527, 528, 530, 540, 547, 550, 561, 563, 586, 594, 595, 596, 597, 598, 599

**Faculty**

**Professors**

Jeffrey D. Greene, Ph.D., University of South Carolina, 1992

Paul L. Haber, Ph.D., Columbia University, 1992

Peter Koehn, Ph.D., University of Colorado, 1973

**Associate Professors**

Karen Ruth Adams, Ph.D., University of California, Berkeley, 2000

Ramona Grey, Ph.D., University of California, Riverside, 1991

Robert P. Saldin, Ph.D., University of Virginia, 2008

**Assistant Professors**

Christopher P. Muste, Ph.D., University of California, Berkeley, 2001 (Associate Professor)

Abhishek Chatterjee, Ph.D., University of Virginia, 2010

**Emeritus Professors**

James J. Lopach, Ph.D., University of Notre Dame, 1973

Jonathan R. Tompkins, Ph.D., University of Washington, 1981

**Pre-Engineering**

**Eijiro Uchimoto (Professor, Dept. of Physics and Astronomy), Advisor**

**Andrew Ware (Professor, Dept. of Physics and Astronomy) Advisor**

The pre-engineering curriculum is for students planning to transfer to an accredited engineering program. Since engineering curricula differ for the different divisions of engineering, the general curriculum listed below serves only as a guide. A student planning to transfer into a particular type of engineering should look for the appropriate program guide on the Pre-engineering web site and consult with his or her advisor.

<b>First Year</b>	<b>A</b>	<b>S</b>
COMX 111A (COMM 111A) Intro to Public Speaking	-	3
ECNS 201S or 202S (ECON 111S or 112S) Principles of Micro/Macroeconomics	3	-
WRIT 101 (ENEX 101) Composition	-	3
M 171, 172 (MATH 152-153) Calculus I, II	4	4
PHSX 215N-216N-217N-218N (PHYS 211N-212N-213N-214N) Fundamentals of Physics w/Calculus I, II & Lab	5	5
EGEN 101 (PHYS 175) Intro to Engineering	3	-
	17	17
<b>Second Year</b>	<b>A</b>	<b>S</b>
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I & II	5	5
M 273 (MATH 251) Multivariable Calculus	-	4
M 311 (MATH 311) Ordinary Differential Equations/Systems	3	-
PHSX 291 (PHYS 295) Engineering Statics	3	-
PHSX 322 (PHYS 321) Electronics for Scientists	3	-
PHSX 301 (PHYS 301) Introduction to Theoretical Physics	-	3
Electives	1	3
	15	15

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**General Engineering (EGEN) - Course Descriptions**



## Pre-Law

**Soazig Le Bihan, Coordinator**

Pre-law students are required to choose a degree major in which they will specialize. No one major best prepares students for law school and no particular course of study is a prerequisite for admission to law school. The Pre-Law Advising Committee suggests that the best preparation for law school is a broad education which ensures exposure to the varieties of thought about the social, political, economic, philosophical, and cultural forces which have shaped law and the societies it governs. Pre-law students must develop substantial skills in writing and be able to think critically and logically.

The Pre-Law Advising Committee urges students to see one of its members **as soon as they consider going to law school**. Advice on the specific character of each student's pre-law program, help in preparation for the LSAT examination, and support in admission to law school are the aims of each member of the committee.

### Pre-Law Advising Committee

- Soazig Le Bihan (Associate Professor, Philosophy): Coordinator
- Len Broberg (Professor, EVST)
- James Burfeind (Professor, Sociology)
- Casey Charles (Professor, English)
- Amanda Dawsey (Assistant Professor, Economics)
- Dan Doyle (Professor, Sociology)
- Jerry Furniss (Professor, Management)
- James Lopach (Professor, Political Science)
- Michael Mayer (Professor, History)
- Jack Morton (Professor, Management)

## Pre-Nursing

**Pre-Nursing Advising Program, Lommasson Center, Room 269**

The pre-nursing curriculum is a two-year program which is designed to provide the basic undergraduate education needed for entry into the professional portion of a baccalaureate nursing program.

Through an arrangement with the College of Nursing at Montana State University-Bozeman, The University of Montana-Missoula offers approved prerequisite courses for pre-nursing students. Students who intend to pursue the Bachelor of Science in Nursing degree offered through Montana State University can complete the 15 credits of sophomore level nursing courses in Bozeman. In addition, these 15 credits of sophomore level nursing courses are currently offered through a limited option on one of MSU's "Upper Division" campuses located at Billings, Great Falls, Kalispell, and Missoula. Students may apply for acceptance into clinical nursing (junior and senior years), to one of MSU's "Upper Division" campuses, up to a year prior to placement regardless of whether or not they have been admitted to MSU. Depending upon the specific placement, students can complete the entire nursing program in Missoula. It is highly competitive to be placed into the entire program available on MSU's Upper Division campus in Missoula

A grade of "C" (2.00) or better is required in the following specific courses for admission to clinical nursing. MSU's College of Nursing does not accept C- as a passing grade in required courses. Though a grade of "C" (2.00) is minimally acceptable, students are advised to attain the highest grade average possible in these classes for placement considerations at the upper-division level. Acceptance to clinical nursing is based on the average of the grades received in required prerequisite courses at the time of application. Admission is based strictly on grade prioritization. There is a competitive component to a successful application. At a minimum, a 2.50 cumulative GPA is required. MSU general education requirements need to be satisfied prior to graduation. Due to occasional changes in the curriculum and degree requirements, it is essential to contact the pre-nursing advisor before course selection and enrollment. The following

courses may not be repeated more than once regardless of where taken.

### Suggested Course of Study

<b>First Year</b>		<b>A</b>	<b>S</b>
BIOB 160N (BIOL 110N) Principles of Living Systems, ??BIOL 112 Human Form and Function I or ??BIOL 113 Human Form and Function 3		-	-
BIOM 250N (BIOL 106N) Microbiology for Health Sciences		-	3
CHMY 121N-123N (CHEM 151N-152N) Intro to General Chemistry/Intro to Organic and Biochemistry		3	3
CHMY 124N (CHEM 154N) Intro to Organic and Biochemistry Laboratory		-	2
COMX 111A (COMM 111A) Introduction to Public Speaking		-	3
WRIT 101 (ENEX 101) English Composition		3	-
M 115 (MATH 117) Probability & Linear Math		3	-
PSYX 100S (PSYC 100S) Introduction to Psychology		-	4
SOCI 101S (SOC 110S) Principles of Sociology		3	-
		15	15
<b>Second Year</b>		<b>A</b>	<b>S</b>
BIOL 312-313 Anatomy and Physiology I & II		4	4
NUTR 221N (HHP 236N) Basic Nutrition		-	3
STAT 216 (MATH 241) Statistics		-	4
PSYX 230S (PSYC 240S) Developmental Psychology		3	-
PSYX 233 (PSYC 245) Fund of Psychology of Aging		3	-
General Education		6	3
		16	14

Individual programs may differ from the suggested course of study to better fill the needs of the particular student. Students desiring admission to other schools of nursing are encouraged to obtain a catalog from the college and, in consultation with the pre-nursing advisor, develop a plan of study tailored to meet the specific course requirements of the college of their choice. In Montana the associate of science degree in nursing (ASN) can be obtained at MSU Northern, Havre; Miles Community College, Miles City; Montana Tech of The University of Montana, Butte, Salish Kootenai College, Pablo, and Colleges of Technology in Missoula, Helena, Great Falls, and Billings<sup>6</sup>. A BSN completion program can be obtained at MSU-Northern, Havre; Montana Tech of The University of Montana, Butte, and Salish Kootenai College, Pablo. A baccalaureate degree in nursing (BSN) can be obtained at Carroll College, Helena and Montana State University, Bozeman.

### Department of Psychology

- Special Degree Requirements
- Suggested Course of Study
- Courses
- Faculty

#### Christine Fiore, Chair

Psychology is the science of the behavior of humans and other animals. The psychologist, using scientific methods, seeks to understand the causes and purposes of behavior. Psychologists pursue their research and its application in academia, business, government, health, military and social service. The department offers training that leads to the Bachelor of Arts, Master of Arts, Educational Specialist, and Doctor of Philosophy degrees.

#### Admission Requirements

To be admitted to either option of the psychology major, a student must satisfy the following requirements:

1. completion of 30 credits overall
2. completion of 6 credits in psychology courses, including PSYX 100S (PYSC 100S).

In addition, to be admitted to the research option of the psychology major, students also should have:

3. a minimum overall GPA of 3.0

Students who intend to major in psychology but who have not yet met the credit hour requirements are admitted to the

program as pre-psychology majors. Prior to meeting the above requirements for admission pre- psychology students should go to University College in the Lommasson Center for advising.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

To earn a Bachelor of Arts degree in psychology, the student must complete one of the options. Students are not restricted to the courses listed under either option, although one option must be completed by majors.

College of Technology courses PSYX 100S (PSY 100S) and PSYX 230 (PSY 201) may be used to fulfill the requirements for the 4-year degree in Psychology. Other Psychology courses offered by the College of Technology do not fulfill these requirements.

All majors are required to earn a "C" (2.00) or better in all psychology classes taken to fulfill requirements, including the Math course.

The Upper-division Writing Expectation must be met by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog. See index.

Majors are required to remain in periodic contact with departmental advisors to facilitate advanced and individual program planning, to deal with impending difficulties, and as a communication channel between student and department.

Students who are particularly interested in child, adult or family development should investigate the human and family development minor. See index.

### General Option

The general option is intended for students who have a major interest in psychology, but do not intend to pursue graduate training in psychology.

1. PSYX 100S (PSYC 100S) Introduction to Psychology
2. PSYX 120 (PSYC 120) Research Methods I
3. PSYX 222 (PSYC 220) Psychological Statistics
4. At least two of the following:
  - . PSYX 250N (PSYC 270N) Fundamentals of Biological Psychology
  - . PSYX 270 (PSYC 260S) Fundamentals of Learning
  - . PSYX 280 (PSYC 265S) Fundamentals of Memory and Cognition
5. At least four of the following:
  - . PSYX 230 (PSYC 240S) Developmental Psychology
  - . PSYX 233 (PSYC 245) Adult Development and Aging
  - . PSYX 340 (PSYC 330S) Abnormal Psychology
  - . PSYX 360 (PSYC 350S) Social Psychology
  - . PSYX 385 (PSYC 351S) Psychology of Personality
6. At least one of the following:
  - . M 115 (MATH 117) Probability & Linear Mathematics
  - . M 121 (MATH 111) College Algebra
  - . M 162 (MATH 150) Applied Calculus
  - . M 171 (MATH 152) Calculus I
7. At least four other three-credit psychology courses, not to include PSYX 292, 298, 392, 398, 493, or 499 (PSYC 296, 298, 396, 398, 493 or 499).

### Research Option

The research option provides the student with an adequate foundation for graduate studies in psychology.

1. PSYX 100S (PSYC 100S) Introduction to Psychology
2. PSYX 120 (PSYC 120) Research Methods I
3. PSYX 222 (PSYC 220) Psychological Statistics
4. PSYX 320 (PSYC 320) Research Methods III
5. PSYX 290 (PSYC 297) Supervised Research (minimum of 2 credits)
6. At least two of the following:
  - . PSYX 250N (PSYC 270N) Fundamentals of Biological Psychology
  - . PSYX 270 (PSYC 260S) Fundamentals of Learning
  - . PSYX 280 (PSYC 265S) Fund of Memory & Cognition
7. At least four of the following:
  - . PSYX 230 (PSYC 240S) Developmental Psychology
  - . PSYX 233 (PSYC 245) Fund of Psychology of Aging
  - . PSYX 340 (PSYC 330S) Abnormal Psychology
  - . PSYX 360 (PSYC 350S) Social Psychology
  - . PSYX 385 (PSYC 351S) Psychology of Personality
8. At least one of the following:
  - . PSYX 345 (PSYC 336) Child and Adolescent Psychological Disorders
  - . PSYX 348 (PSYC 385) Psychology of Family Violence
  - . PSYX 376 (PSYC 337) Principles of Cognitive Behavior Modification
  - . PSYX 378 (PSYC 335S) Intro to Clinical Psychology
9. At least two of the following:
  - . PSYX 352 (PSYC 372) Comparative Psychology
  - . PSYX 356 ((PSYC 371) Human Neuropsychology
  - . PSYX 377 (PSYC 301) Personalized Student Instruction
  - . PSYX 400 History and Systems in Psychology
10. At least one of the following:
  - . M 115 (MATH 117) Probability & Linear Mathematics
  - . M 162 (MATH 150) Applied Calculus
  - . M 171 (MATH 152) Calculus I
  - . M 121 (MATH 118) College Algebra

### Teacher Preparation in Psychology

Students who want to be licensed to teach psychology at the high school level must complete the BA degree requirements in psychology (general option). They also must complete a teaching major or minor in a second field of their choice and the professional licensure program in the College of Education. Students may also earn a teaching minor in psychology. See the Department of Curriculum and Instruction for information about admission to the Teacher Education Program and completion of these licensure programs.

### Suggested Course of Study

	First Year	A	S
PSYX 100S (PSYC 100S) Introduction to Psychology		4	-
PSYX 105 (PSYC 110) Careers in Psychology		-	1
PSYX 120 (PSYC 120) Research Methods I		-	3
M 115 (MATH 117) Probability and Linear Math or M 162 or 171 (150 or 152) Applied Calculus/Calculus I or M 121 (MATH 111) College Algebra		-	3-4
WRIT 101 (ENEX 101) Composition		3	-
Four General Education courses		6	6
Two elective courses		3	3
		16	17
	Second Year	A	S
PSYX 222 (PSYC 220) Psychological Statistics		3	-
Three other 200-level psychology courses		3	6
Four General Education courses		6	6
Two elective courses		3	3

	<b>Third Year</b>	15 15
PSYX courses		<b>A S</b>
PSYX 290 (PSYC 297) Supervised Research		3 6
PSYX 320 (PSYC 320) Research Methods III (upper-division writing)		- 2
Electives and General Education		3 -
		9 7
		15 15
	<b>Fourth Year</b>	<b>A S</b>
PSYX courses		6 -
Electives		6 15-
		12 15-
		16 16

#### Requirements for a Minor

To earn a minor in psychology the student must complete a minimum of 21 credits of psychology including:

1. PSYX 100S (PSYC 100S) Introduction to Psychology
2. PSYX 120 (PSYC 120) Research Methods I
3. One of:
  - . PSYX 230 (PSYC 240S) Developmental Psychology
  - . PSYX 360 (PSYC 350S) Social Psychology
  - . PSYX 385 (PSYC 351S) Psychology of Personality
4. One of:
  - . PSYX 340 (PSYC 330S) Abnormal Psychology
  - . PSYX 345 (PSYC 336) Child and Adolescent Psychological Disorders
  - . PSYX 376 (PSYC 337) Principles of Cognitive Behavior Modification
  - . PSYX 378 (PSYC 335S) Intro to Clinical Psychology
5. Two of:
  - . PSYX 250N (PSYC 270N) Fundamentals of Biological Psychology
  - . PSYX 270 (PSYC 260S) Fundamentals Psychology of Learning
  - . PSYX 280 (PSYC 265S) Fundamentals of Memory & Cognition
  - . PSYX 352 (PSYC 372) Comparative Psychology
  - . PSYX 356 (PSYC 371) Human Neuropsychology

At least six of the 21 credits must be at the 300-level or above.

All minors are required to earn a "C" (2.00) or better in all psychology classes taken to fulfill requirements.

#### Bioethics Certificate Program

##### Special Certification Requirements

The Bioethics Certificate Program is offered online and requires completion of **four core courses** (12 semester hours).

The courses include: PSYX 435 - Clinical Topics in Rural Bioethics, PSYX 436 - Ethical Foundations for Quality Assessment & Improvement in Healthcare, PSYX 437 - Empirical Bioethics Research in Rural and Underserved Settings, and PSYX 438 - Bioethics and Health Policy. One course is offered each term and so the required coursework can be completed within a 12-month period of time. Options are available for either graduate or undergraduate credit. Students interested in the Bioethics Certificate Program need to be accepted into the program by the Program Directors. Directions for application can be found at Extended Learning Services or at the National Rural Bioethics Project.

##### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### Psychology (PSYX) - Course Descriptions

100S, 105, 107, 120, 161S, 191, 192, 222, 230, 238, 240, 250N, 270, 280, 290, 291, 292, 294, 298, 320, 339, 340, 345, 348, 352, 356, 360, 362, 376, 377, 378, 385, 390, 391, 392, 398, 400, 435, 436, 437, 438, 441, 442, 491, 494, 499, 501, 510, 511, 512, 520, 521, 522, 523, 524, 525, 526, 530, 531, 532, 534, 535, 536, 537, 540, 545, 546, 550, 551, 560, 565, 571, 580, 582, 583, 587, 588, 594, 595, 596, 597, 599, 625, 630, 631, 632, 634, 638, 680, 694, 697, 699

## **Faculty**

### **Professors**

Ann Cook, Ph.D., The University of Montana, 2001 (Research)

Christine Fiore, Ph.D., University of Rhode Island, 1990

Stuart Hall, Ph.D., University of Texas at Austin, 1989

Helena Hoas, Ph.D., Umeå University, Sweden, 1987 (Research)

Rosmary Hughes, Ph.D., University of Houston, 1989 (Research)

Lois Muir, Ph.D., State University of New York at Stony Brook, 1982

Craig Ravesloot, Ph.D., The University of Montana, 1995 (Research)

David Schulberg, Ph.D., University of California, Berkeley, 1981

Thomas Seekins, Ph.D., University of Kansas, 1983

Paul S. Silverman, Ph.D., University of Georgia, 1977

Allen Szalda-Petree, Ph.D., The University of Montana, 1990

Richard Van den Pol, Ph.D., Western Michigan University, 1981

Arlene Walker-Andrews, Ph.D., Cornell University, 1980 (Associate Provost)

Jennifer Waltz, Ph.D., University of Washington, 1993

### **Associate Professors**

Margaret E. Beebe-Frankenberger, Ph.D., University of California, Riverside, 2000

Duncan G. Campbell, Ph.D., Washington State University, 2003

Bryan Cochran, Ph.D., University of Washington, 2003

Lucian G. Conway III, Ph.D., University of British Columbia, 2001

Daniel J. Denis, Ph.D., York University, 2004

Greg R. Machek, Ph.D., Indiana University, 2004

Gyda I. Swaney, Ph.D., University of Montana, 1997

### **Assistant Professors**

Cameo Borntrager, Ph.D., University of Tulsa, 2006

Anisa Goforth, Ph.D., Michigan State University, 2011

Yoonhee Jang, Ph.D., University of Maryland, 2006

Craig McFarland, Ph.D., University of Arizona, 2011

**Adjunct Faculty**

Ann Jeanette Belcourt-Dittloff, Ph.D., The University of Montana, 2006 (Research)

Cheryl Van Denburg, Ph.D., The University of Montana, 1993

**Emeritus Professors**

Charles K. Allen, Ph.D., Ohio State University, 1963

Laurence H. Berger, Ph.D., University of Washington, 1969

George C. Camp, Ph.D., University of Illinois, 1971

Nabil F. Haddad, Ph.D., University of Oklahoma, 1976

Frances A. Hill, Ph.D., Ohio State University, 1965

Lynne S. Koester, Ph.D., University of Wisconsin, Madison, 1976

John R. Means, Ph.D., University of Colorado, 1965

David A. Strobel, Ph.D., The University of Montana, 1972

James A. Walsh, Ph.D., University of Washington, 1963

Herman A. Walters, Ph.D., Pennsylvania State University, 1962

Janet P. Wollersheim, Ph.D., University of Illinois, 1968

**Religious Studies**

- Courses
- Faculty

**Paul A. Dietrich (Professor of Liberal Studies), Director**

Religion has been taught as an academic discipline at The University of Montana since 1924. Located within the Liberal Studies Program in the College of Arts and Sciences, the study of religion is pursued at the University in an interdisciplinary setting that offers opportunities for exploration and discovery in many areas of the humanities, arts, and sciences. Our Religious Studies courses emphasize the scholarly analysis and interpretation of the history, literature, beliefs, myths, symbols, rituals, ethical and legal codes, and communities and institutions of the world's religious traditions. We investigate how the world's religions address enduring human questions and influence responses to daily problems, and we explore how religious traditions shape lives and societies, from the emergence of the earliest civilizations to twenty-first century global conflicts. Our students engage ideas about the good life and death, suffering and happiness, war and peace, revelation and salvation, God, mysticism, and religious experience. Our curriculum is designed to provide students with a broad and deep understanding of religion as a field of human activity and inquiry. Our students acquire the skills necessary to investigate specific religious traditions in historical depth and to understand the forms, expressions, and roles of religions in the world today.

More information is available at the Liberal Studies Program office in LA 101, (406) 243-2949 or online at [www.cas.umt.edu/religious](http://www.cas.umt.edu/religious). For advising assistance contact the Humanities advisor in LA 145 or call (406) 243-6082.

**Degree Requirements****Lower-Division Requirements**

Foreign Language (Two years of a single foreign language) 18-20 cr.  
WRIT 101, Composition (previously ENEX 101) or equivalent 3 cr.

Liberal Studies 151L, Introduction to Humanities Bible (autumn or sum. semester only) 4 cr.  
 Liberal Studies 152L, Introduction to Humanities Medieval (spring or sum. semester only) 4 cr.  
 Liberal Studies 161H, Introduction to Asian Humanities 3 cr.

Two 200-level Religion courses: At least one course in religions of Near Eastern/Mediterranean origin and one in Religions of South Asian or East Asian origin 6 cr.

Near Eastern/Mediterranean (Pick at least one course)

RLST 204H (RELS 210H) Introduction to the Hebrew Bible (Old Testament)  
 RLST 205 (RELS 211) Introduction to the New Testament  
 RLST 221 (RELS 220), Judaism  
 RLST 225 (RELS 225), Christianity

South or East Asian (Pick at least one course)

RLST 232H (RELS 232H), Buddhism  
 RLST 234 (RELS 234), Hinduism  
 RLST 236 (RELS 236), Chinese Religions  
 RLST 238 (RELS 238), Japanese Religions

### Upper-Division Requirements

i) RLST 300 (RELS 300), Theory & Method in the Study of Religion 3cr.

ii) Five courses (15 cr.) selected from among the following:

NASX 304E (NAS 301E), Native American Beliefs and Philosophy  
 RLST 310 (RELS 310), Topics in Biblical Studies (R-6)  
 RLST 320 (RELS 320), Ancient Judaism/Early Christianity (R-6)  
 RLST 335 (RELS 335), Western Religious Thought I  
 RLST 336 (RELS 336), Western Religious Thought II  
 RLST 353 (RELS 353), Topics in South Asian Religions (R-6)  
 RLST 354 (RELS 354), Topics in East Asian Religions (R-6)  
 RLST 360 (RELS 360), Classics of Buddhist Literature (R-6)  
 RLST 366 (RELS 366), Tibetan Civilization  
 RLST 367 (RELS 367), Approaches to the Study of Zen Buddhism  
 RLST 368 (RELS 368), Contemporary Buddhism in South and Southeast Asia  
 RLST 369 (RELS 369), Contemplative Traditions of Asia  
 RLST 370 (RELS 370), Mysticism (R-6)  
 AAS 374, African-American Religious Experience  
 RLST 376 (RELS 376), Contemporary Religious Thought (R-6)  
 RLST 281E (RLST 381E), Comparative Ethics  
 AAS 417, Prayer and Civil Rights

iii) Two Liberal Studies courses with Religious Studies content (for example, Liberal Studies 342, Topics in Comparative Literature and Religion) 6 cr.

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Religious Studies (RLST) - Course Descriptions

191, 198, 204H, 205, 221, 225, 232H, 233, 234X, 236, 238, 281E, 291, 300, 310, 320, 335, 336, 353, 354, 360, 366, 367,



368, 369, 370, 376, 391, 392, 491, 491

## **Faculty**

### **Professors**

Bradley Clough, Ph.D., Columbia University, 1998  
 Paul A. Dietrich, Ph.D., University of Chicago, 1981 (Director)  
 Nathaniel Levto, Ph.D., Brown University, 2006

### **Lecturer**

Mark Hanson, Ph.D., University of Virginia, 1993

### **Adjunct Faculty**

Thomas R. Lee, Ph.D., University of California, 1979

## **Russian Studies**

**Ona Renner-Fahey (Associate Professor of Russian), Robert H. Greene (Associate Professor of History), and Clint Walker, (Assistant Professor of Russian), Advisors**

Students interested in Russian Studies may choose to minor in this interdisciplinary program. Courses are required in Russian language, culture, history, and one other discipline (depending on course offerings and students' interests). The list of possible course offerings below must be considered in consultation with one of the advisors to the minor.

### **Requirements for a Minor**

The following requirements must be successfully completed to obtain a minor in Russian Studies:

1. Second-year proficiency in the Russian language (by successfully completing 201-202 or equivalent).
2. RUSS/MCLG 105H (Introduction to Russian Culture)
3. One upper-division Russian history course (357, 358, 457, or 458)
4. Six additional credits of upper-division course work, three of which must be offered through a department other than History or Modern and Classical Languages and Literatures. Such other possible disciplines include: anthropology, business administration, economics, geography, or political science. For more information, see under "Related Courses" below.
5. Study abroad in Russia is highly encouraged. Students should discuss options for study abroad with their advisors.

### **Related Courses**

Following is a list of possible course selections for the electives toward the Russian Studies Minor. Students are required to consult with their advisors concerning the appropriateness of the courses toward the minor.

#### **Anthropology**

ANTY 326E (ANTH 385E) Indigenous Peoples and Global Development 3 cr.

#### **Business Administration-Management**

MGMT 348 Entrepreneurship 3cr.

BGEN 360 (MGMT) 368 International Business 3cr.

BGEN 465 (MGMT 465) World Trade and Commerce 3 cr.

#### **Economics**

ECNS 374 (ECON 374) Comparative Economic Systems 3 cr.

**Film**

RUSS 308 Russian Cinema and Culture 3 cr.

**Geography**

GPHY 347 (GEOG 351/GEOG 308) Regional Geography 3 cr.

**History**

HSTR 326 (HIST 319H) Contemporary Europe 3 cr.

HSTR 357 (HIST 344) Russia to 1881 3 cr.

HSTR 358 (HIST 345) Russia Since 1881 3 cr.

HSTR 363 (HIST 348) Eastern Europe: Past and Present 3 cr.

HSTR 378 (HIST 332H) The Global Diplomacy of the Cold War 3 cr.

HSTR 380H (HIST 331H) Foreign Relations of the Great Powers, 1870-Present 3 cr.

HSTR 391 (HIST 395) Special Topics variable cr.

HSTR 457 (HIST 445) The World of Anna Karenina 3 cr.

HSTR 458 (HIST 446) The Russian Revolution, 1900-1930 3 cr.

HSTR 472E (HIST 460E) Problems of Peace and National Security 3 cr.

**Political Science**

PSCI 321 Post-Communist Politics 3 cr.

PSCI 322 (PSC 321H) Politics of Western Europe 3 cr.

PSCI 355 (PSC 355) Theories of Civil Violence 3 cr.

**Russian**

301 Oral and Written Expression I 3 cr.

302 Oral and Written Expression II 3 cr.

312L (306L) Introduction to Russian Literature I 3 cr.

313L (307L) Introduction to Russian Literature II 3 cr.

391 (395) Special Topics Variable cr.

411 19th Century Major Russian Authors 3 cr.

412 20th Century Major Russian Authors 3 cr.

424 Russian Short Story 3 cr.

440 Russian Poetry 3 cr.

491 (495) Seminar in Russian Studies 3 cr.

## Study in Russia

This may be arranged either through UM's faculty-led program or through another program that has been approved by an advisor of the Russian Studies minor.

## Science

**Andrew S. Ware, ( Professor and Chair, Department of Physics and Astronomy)**

Science courses are designed for students desiring scientific knowledge and insight but are either majoring in non-scientific subjects or have limited science backgrounds. Enrollment in Science courses may serve as an introduction to further study in the sciences, to fulfill general requirements, or to fill specific requirements of the elementary education major.

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Science (SCI) - Course Descriptions

195, 198, 199, 225N, 226N, 296, 350, 395, 396, 399, 494, 495, 496, 497, 498, 595, 596

## Department of Sociology

- . Special Degree Requirements
- . Suggested Course of Study
- . Courses
- . Faculty

### Kathy Kuipers, Chairs

"Sociology is the study of social life, social change, and the social causes and consequences of human behavior. Sociologists investigate the structure of groups, organizations, and societies, and how people interact within these contexts. Since human behavior is shaped by social factors, the subject matter of sociology ranges from the intimate family to the hostile mob; from organized crime to religious cults; from the divisions of race, gender and social class to the shared beliefs of a common culture (American Sociological Association 2002:1). The Sociology faculty at UM bring diverse theoretical perspectives to their courses and use a wide array of methodological strategies in their research and teaching. Their interests range from social issues facing our local community and the Northern Rocky Mountain region, to national and global concerns. Faculty research addresses both theoretical issues, such as the causes of criminal behavior, and practical matters, such as the effectiveness of prison rehabilitation programs or the impact of legislation on family policy and poverty programs.

In addition to a general sociology major, students may choose one of three options for structuring their course work. The general Sociology major provides a broad foundation in sociological theory and research, together with exposure to a variety of courses in the main substantive areas of the discipline. Students interested in crime and criminal justice can choose an option in Criminology, while students concerned with the causes and consequences of social inequality can select an option Inequality and Social Justice. Students interested in rural and environmental issues can pursue an option in Rural and Environmental Change. These options allow students to concentrate their studies in a particular area of interest while still acquiring a solid foundation in the discipline of Sociology.

### Special Degree Requirements

The general sociology major requires a minimum of 33 sociology credits. Students may choose an option in criminology, inequality and social justice, or in rural and environmental change. These options require 39 sociology credits. All sociology majors must complete a required core and four courses from the major content list, in order to

insure broad exposure to the field of sociology. No more than 60 sociology credits may count for graduation. In addition to meeting these departmental requirements, students must meet all University wide requirements, as specified in the catalog. These include: completing 120 credits, meeting the General Education requirements including the Upper-division Writing Proficiency Assessment, and taking 39 credits of upper-division course work. See the Academic Policies and Procedures section of this catalog for other requirements.

Upper-Division Writing Expectation: To meet the Upper- Division Writing Expectation of the Bachelor of Arts with a major in Sociology, students must successfully complete one course selected from SOCI 438, 441, 460 or 488 (SOC 438, 441, 460 or 488); or any other upper-division writing course approved for general education (see Academic Policies and Procedures section of the catalog).

**Required Course Work:**

1. Core Courses (12 credits):
  - . SOCI 101S (SOC 110S) Introduction to Sociology
  - . SOCI 202 (SOC 202) Social Statistics
  - . SOCI 318 (SOC 201) Sociological Research Methods
  - . SOCI 455 (SOC 455) Classical Sociological Theory
2. Major Content: four courses, two of which must be numbered 300 or above, (12 credits):
  - . SOCI 211S (SOC 230S) Introduction to Criminology OR 330 Juvenile Delinquency
  - . SOCI 220S (SOC 220S) Race, Gender and Class
  - . SOCI 270 (SOC 270) Introduction to Development Sociology
  - . SOCI 275S (SOC 275S) Gender and Society
  - . SOCI 306 (SOC 306) Sociology of Work
  - . SOCI 308 (SOC 308) Sociology of Education
  - . SOCI 325 (SOC 325) Social Stratification
  - . SOCI 332 (SOC 300) Sociology of the Family
  - . SOCI 342 (SOC 342) Urban/Metropolitan Sociology
  - . SOCI 345 (SOC 320) Sociology of Organizations
  - . SOCI 346 (SOC 346) Rural Sociology
  - . SOCI 350 (SOC 340) The Community
  - . SOCI 355 (SOC 355) Population & Society
  - . SOCI 382 (SOC 350S) Social Psychology & Social Structure
  - . SOCI 470 (SOC 470) Environmental Sociology
  - . SOCI 485 (SOC 485) Political Sociology

NOTE: Students in the criminology, inequality and social justice, and reach option may count only one course from their respective option as a major content course.

Sociology 101S (SOC 110S) is a prerequisite for most courses numbered 200 and above. Additional prerequisites are listed in course descriptions.

Students who have not completed specified prerequisites may enroll only with the instructor's consent. All courses to be applied toward the major must be taken for a traditional letter grade. Majors are expected to earn a "C-" or better in all sociology courses.

To earn 120 credits in four years, students must average 30 credits per year, or 15 credits per semester.

Requirements for general sociology majors allow considerable flexibility in choosing courses. However, requirements for the criminology, inequality and social justice, and rural and environmental change options are more stringent.

**General Sociology Major:**

Students whose primary interest is in a general sociology major are urged to develop a plan of study with their advisor; they must take three electives in addition to the core courses and major content requirements listed above.

Any sociology course, including courses from any of the three options, may be included in your study plan. The

general sociology major prepares students for positions which require a bachelor's degree in one of the social science disciplines, including employment in a variety of government and private-sector agencies, or for a graduate program in sociology. It also provides valuable preparation for related fields such as law, social work, education, counseling, politics, and public administration.

**Criminology Option:**

Criminology has been an area of study within sociology since the inception of the discipline at the turn of the twentieth century. Contemporary criminology examines the making of laws, the nature and extent of crime, the causes of crime, and society's efforts to control crime through the juvenile and criminal justice systems. The option builds upon the required course work in sociology and allows students to pursue extended study of crime and the criminal justice system. In addition, the option provides opportunity for practical experience in juvenile and criminal justice systems through internship placement. The criminology option prepares students for employment in public and private criminal justice agencies, as well as graduate study in sociology, criminal justice, and law.

In addition to courses required of all sociology majors in the core and content areas, students concentrating in criminology must complete the following:

- . SOCI 211S (SOC 230S) Introduction to Criminology or 330 (SOC 330) Juvenile Delinquency
- . SOCI 221 (SOC 235) Criminal Justice System
- . and any three of the following courses:
  - . SOCI 312 (SOC 333) Criminal Adjudication
  - . SOCI 335 (SOC 335) Juvenile Justice System
  - . SOCI 362 (SOC 332) Sociology of Law Enforcement
  - . SOCI 423 (SOC 334) Sociology of Corrections
  - . SOCI 433 (SOC 423) Addiction Studies
  - . SOCI 435 (SOC 435) Law and Society
  - . SOCI 438 (SOC 438) Seminar in Crime and Deviance
  - . SOCI 498 (SOC 490) Internship

**Inequality and Social Justice Option:**

Inequality is at the core of most sociological inquiries. The option in inequality and social justice examines the causes and consequences of inequalities based on class, gender, race/ethnicity, disability, age, and sexual orientation. Social inequalities at the local, national, and global levels are studied, as are the political, legal, and social processes that contribute to or reduce inequalities. Ethical elements of social justice are considered with regard to inequality. An option in inequality and social justice prepares students for employment in a variety of government and private-sector agencies, especially in social services, or for graduate school in Sociology. It also provides valuable preparation for related fields such as law, social work, education, counseling, politics, and public administration.

Requirements, in addition to courses in the core and content areas, include:

- . SOCI 220S (SOC 220S) Race, Gender and Class or SOCI 275S (SOC 275S) Gender and Society
- . SOCI 441 Capstone: Inequality and Social Justice
- . and any three of the following courses:
  - . SOCI 314 (SOC 310) Extraordinary Group Behavior
  - . SOCI 325 (SOC 325) Social Stratification
  - . SOCI 371 (SOC 370S) Gender and Global Development
  - . SOCI 435 (SOC 435) Law & Society
  - . SOCI 442 Inequality and Social Justice Service Learning
  - . SOCI 443 (SOC 322) Sociology of Poverty
  - . SOCI 444 (SOC 444) Issues in Inequality
  - . SOCI 485 (SOC 485) Political Sociology
  - . SOCI 498 (SOC 490) Internship

NOTE: No more than one course from the ISJ emphasis may be used to fill the requirements for major content courses.

RECOMMENDED: Students should take 498 (SOC 490) concurrent with 441.

**Rural and Environmental Change Option:**

Rural environments, residents and agencies are facing rapid social, economic, demographic and political change. This option develops analytical and practical skills for understanding rural and environmental change globally and in the American West, and its policy implications in such areas as rural health, welfare and work; community development and assessment; native peoples and natural resource management. An option in rural and environmental change prepares students for employment with either a government, private or non-profit agency concerned with the above topics or for pursuing an advanced degree in sociology.

Requirements, in addition to courses in the core and content areas, include:

- . SOCI 270 (SOC 270) Introduction to Development Sociology
- . SOCI 460 (SOC 460) Capstone: Rural and Environmental Change
- Students should complete SOCI 270 and two REACH electives prior to taking SOCI 460 (SOC 460).
- . and any three of the following courses:
  - . SOCI 346 (SOC 346) Rural Sociology
  - . SOCI 350 (SOC 340) The Community
  - . SOCI 355 (SOC 355) Population & Society
  - . SOCI 371 (SOC 370S) Gender and Global Development
  - . SOCI 443 (SOC 322) Sociology of Poverty
  - . SOCI 470 (SOC 470) Environmental Sociology
  - . SOCI 498 (SOC 490) Internship

NOTE: No more than one course from the REACH emphasis may be used to fill the requirements for major content courses.

**Teacher Preparation in Sociology**

Students who want to be licensed to teach sociology at the high school level must complete the BA degree requirements in sociology (general sociology, no option required). They also must complete a teaching major or minor in a second field of their choice and the professional licensure program in the College of Education. Students may also earn a teaching minor in sociology. See the Department of Curriculum & Instruction for information about admission to the Teacher Education Program and completion of these licensure programs.

**Suggested Course of Study**

**General Sociology Majors:**

	<b>First Year</b>	<b>A S</b>
SOCI 101S (SOC 110S) Introduction to Sociology		3 -
WRIT 101 (ENEX 101) College Writing I		3 -
M 115 (MATH 117) Probability and Linear Math		- 3
Lower-division Writing course		- 3
Electives and General Education		9 9
		15 15
	<b>Second Year</b>	<b>A S</b>
SOCI 202 (SOC 202) Social Statistics		3 -
SOCI 211S (SOC 230) Introduction to Criminology, SOCI 270 Introduction to Development Sociology, or SOCI 220S Race, Gender & Class		3 -
SOCI 221 (SOC 235) Criminal Justice System or elective		- 3
Sociology major content courses		3 6
General Education		6 6
		15 15
All sociology majors are expected to have their general education work completed by the end of their sophomore year. The bulk of the work in sociology should occur during the junior and senior years.		
	<b>Third Year</b>	<b>A S</b>
SOCI 318 (SOC 201) Sociological Research Methods		3 -

SOCI 455 (SOC 455) Classical Sociological Theory	- 3
Sociology major content course	3 -
Upper-division writing course	- 3
Option courses (CRIM, ISJ or REACH) or electives	9 9
	15 15
<b>Fourth Year</b>	<b>A S</b>
SOCI 460 (SOC 460) Capstone in Rural and Environmental Change (Rural option) or SOCI 441 (SOC 441) Capstone in Inequality and Social Justice (ISJ option)	- 3
Option courses (Crim, ISJ, or Rural) or electives	15 12
	15 15

Students choosing an option in criminology are required to complete the core in their option prior to taking the criminology option elective courses. Students choosing the inequality and social justice option should take SOCI 498 (SOC 490) concurrent with SOCI 441 (SOC 441). Students choosing the rural and environmental change option should take SOCI 270 (SOC 270) first and complete at least two option electives prior to taking SOCI 460 (SOC 460).

#### Requirements for a Minor

To earn a minor in sociology the student must complete a minimum of 21 credits in sociology with at least 9 of these credits at the upper-division level. Students must take SOCI 101S (SOC 110S), SOCI 318 (SOC 201), SOCI 455 (SOC 455) and two (2) major content courses.

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### Sociology (SOCI) - Course Descriptions

101S, 130S, 191, 202, 211, 212S, 220S, 221, 270, 275S, 291, 306, 308, 312, 314, 318, 325, 330, 332, 335, 342, 345, 346, 350, 355, 362, 371, 382, 386, 391, 398, 423, 435, 438, 441, 442, 443, 444, 455, 460, 470, 485, 488, 491, 492, 494, 498, 520, 530, 538, 545, 561, 562, 563, 590, 594, 595, 596, 597, 598, 599

#### Faculty

##### Professors

Robert W. Balch, Ph.D., University of Oregon, 1972

James W. Burfeind, Ph.D., Portland State University, 1984

Daniel P. Doyle, Ph.D., University of Washington, 1984

Rebecca T. Richards, Ph.D., Utah State University, 1990

##### Associate Professors

Dusten R. Hollist, Ph.D., Washington State University, 2003

Kathy J. Kuipers, Ph.D., Stanford University, 1999

Teresa R. Sobieszczyk, Ph.D., Cornell University, 2000

Celia C. Winkler, Ph.D., University of Oregon, 1996

##### Assistant Professors

Daisy M. Rooks, Ph.D., University of California-Los Angeles, 2007

#### South and Southeast Asian Studies

Professor Ruth Vanita, Advisor

The Liberal Studies Program offers undergraduates at the University of Montana-Missoula an opportunity to study South and Southeast Asian peoples, cultures, histories, societies, as well as their literary, artistic and religious traditions. The region includes India, Nepal, Bhutan, Tibet, Sri Lanka, Pakistan, Bangladesh, Myanmar (Burma), Thailand, Laos, Cambodia, Vietnam, Malaysia, Brunei, Singapore, Indonesia, East Timor, and the Philippines.

The South Asianist faculty of Liberal Studies and the Dean of the College of Arts and Sciences work closely with those faculty from other disciplines at the University of Montana who have research and teaching interests in the area, and competence in regional languages.

Students may choose to minor in South and Southeast Asia with a major in any discipline. They must register with the program advisor, and are encouraged to plan their course sequence at least one semester in advance, in consultation with an assigned core faculty advisor from those listed below.

### **Special Degree Requirements**

#### **Requirements for a Minor**

Major in any discipline, with a minor in South and Southeast Asian Studies. A total of 18 credits as follows:

1. ANTY/SSEA/LSH (LS) 102H (three credits).
2. Six credits from the following lower-division (100-200) courses: [SSEA/LS 202X, SSEA/RLST 232H (RELS 232), SSEA/RLST 234 (RELS 234), and SSEA/SOCI 212S (SOC 212S)].
3. Nine credits from the following upper-division (300 and above) courses, of which at least 3 credits must be in the humanities (SSEA 342, SSEA 353, SSEA 366, SSEA 368), and 3 credits in the social sciences (SSEA 330X and SSEA 440).
4. No language courses are required. However, students are encouraged to study regional languages through summer institutes, such as SEASSI, or through accredited study abroad experiences in either South, or Southeast Asia.

The faculty advisor may permit course substitutions.

#### **Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### **South/Southeast Asian Studies (SSEA) - Course Descriptions**

102H, 195, 202X, 212S, 232H, 234X, 295, 330X, 342, 353, 366, 368, 395, 440, 495

#### **Faculty**

Abhishek Chatterjee, Ph.D. University of Virginia 2010 (Political Science)

Bradley Clough, Ph.D. Columbia University 1998. (Liberal Studies)

Quan Ha, Ph.D. Texas Tech University, 2011 (English)

Ranjan Shrestha, Ph.D. Ohio State University 2007 (Economics)

Teresa Sobieszczyk, Ph.D. Cornell University 2001 (Sociology)

Ruth Vanita, Ph.D. Delhi University 1992 (Liberal Studies)

G.G. Weix, Ph.D. Cornell University 1990 (Anthropology)

#### **Women's and Gender Studies Program**



- . Special Degree Requirements
- . Courses
- . Faculty

**Anya Jabour and Elizabeth Hubble, Co-Directors**

Women's and Gender Studies, an interdisciplinary program founded in 1990, encourages the production, discussion, and dissemination of knowledge about women's experiences, oppressions, and achievements, in Montana, the U.S., and the world. In the last decade this focus has broadened to include study of the social and cultural construction of gender, sex, and sexualities. By fostering awareness of cultural and international diversity, as well as of the circulations of power mediated by race, class, age, and sexual orientation, Women's and Gender Studies encourages students to think critically and to envision justice for all peoples.

The Women's and Gender Studies program is administered by the co-directors, with assistance from the program coordinator, in consultation with the Women's and Gender Studies Steering Committee, an interdisciplinary group of faculty and professional associates with teaching, research, and scholarly interests in women and gender.

Students may include Women's and Gender Studies in their studies in two ways. They can major in Liberal Studies with an option in Women's and Gender Studies, or they can complete the Women's and Gender Studies minor. Students may select coursework from a wide variety of courses offered in the humanities, social sciences, natural sciences, law, education and other disciplines. Women's and Gender Studies offers scholarships, and sponsors or co-sponsors a variety of events including lectures, discussions, and performances that make a vibrant contribution to both the campus and the Missoula community life.

To be admitted, students must register with the Women's and Gender Studies directors, who will explain option or minor requirements and supervise their program.

**Special Degree Requirements**

Students may either combine the WGS minor with any major on campus or major in Liberal Studies with the Women's and Gender Studies Option

**I. Requirements for a Minor**

The Women's and Gender Studies minor is available to students in all majors. It consists of 20 credits. Students must complete three required courses or approved alternatives: (1) WGSS 163h, Philosophical Perspectives on Women in the Western Hemisphere, or WGSS 263 (WGS 263S), Introduction to Women's and Gender Studies, (2) WGSS 363 (WGS 363), Feminist Theories and Methods, and (3) WGSS 363 (WGS 463), Women's Studies Capstone (2 credits). In addition, students must complete four elective courses (twelve credits) from the list of Women's and Gender Studies courses. At least one of these courses must be numbered 300-level or above. A course list is published each semester prior to pre-registration. Contact the WGS Office at 243-2584 or visit LA 138A. Students may apply WGSS 398 (WGS 398), Cooperative Education (internships), toward their elective credits. All requests for substitutions or equivalency must be approved by the director(s) of the Women's and Gender Studies Program.

II. For the Women's and Gender Studies option under the Liberal Studies major, the following requirements must be met (not necessarily in sequence):

1. Completion of Liberal Studies core curriculum. (See the Liberal Studies section of this catalog: <http://www.umt.edu/catalog/cat/cas/libstud.html#degree>.)
2. Completion of WGSS 163H or approved alternative.
3. At least 21 credits of course work in relevant, advisor- approved courses numbered above 299. Each semester a list of these courses is published at pre-registration by the Women's and Gender Studies office, LA 138A, (406) 243- 2584. Typical choices are listed below under Courses, but may vary from year to year. Other courses not listed here may be applied toward the option or the minor if approved by the Women's and Gender Studies directors. WGSS 398 (WGS 398) (internships) may be applied toward these credits.

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Women's and Gender Studies (WGSS) - Course Descriptions**

163H, 191, 263S, 291, 294, 363, 390, 391, 392, 398, 463, 490, 491, 492, 494, 594, 595, 596, 598, 695

**Women's and Gender Studies Affiliated Faculty**

**Professors**

Casey Charles, J.D., Hastings College fo the Law, 1978; Ph.D. SUNY Buffalo, 1992 (English)

Janet L. Finn, Ph.D., University of Michigan, 1995 (Social Work and Anthropology)

Christine Fiore, Ph.D., University of Rhode Island, 1990 (Psychology)

Rita Sommers-Flanagan, Ph.D., The University of Montana, 1989 (Psychology)

Linda Rutland Gillison, Ph.D., University of Minnesota, 1975 (Classics and Liberal Studies)

Sara Hayden, Ph.D., University of Minnesota, 1994 (Communication Studies)

Anya Jabour, Ph.D., Rice University, 1995 (History)

Ruth Vanita, Ph.D., Delhi University, 1992 (Liberal Studies)

Ione Crummy, Ph.D., Stanford University, 1992 (French)

Jill Bergman, Ph.D., University of Illinois, Urbana, 1999 (English)

**Associate Professors**

Hiltrud Arens, Ph.D., University of Maryland, 1997 (German)

Bryan Cochran, Ph.D., University of Washington, 2003 (Psychology)

Sarah Halvorson, Ph.D., University of Colorado-Boulder, 2000 (Geography)

Teresa Sobieszczyk, Ph.D., Cornell University, 2000 (Sociology)

Celia Winkler, Ph.D., University of Oregon, 1996 (Sociology)

**Assistant Professors**

Julie Edwards, MS, University of Illinois, Urbana-Champaign (Archivist)

Kathy Kuipers, Ph.D., Stanford University, 1999 (Sociology)

Daisy Rooks, Ph.D., Duke University, 2007 (Sociology)

Tobin Shearer, Ph.D., Northwestern University, 2008 (History and Religion)

**Adjunct Instructors**

Elizabeth Hubble, Ph.D., University of Michigan (French Medieval Studies)

Lee Heuermann, Ph.D., Stony Brook University (Music Composition)

June Ellestad, Ph.D., Washington State University (Sociology)

Richard Sattler, Ph.D., University of Oklahoma (Anthropology)

## CLIMATE CHANGE STUDIES

Steven Running, Director

Climate Change Studies is an inter-disciplinary program open to all majors. The program educates students in three areas of the climate change issue: science, society, and solutions. Coursework in the minor provides a foundation that enables students to engage the scientific, societal, and political dimensions of global climate change. Further, the focus on solutions with its orientation toward applied learning will help students develop critical thinking and problem solving skills. Participating students will enhance their major field of study. They will be better prepared to enter a broad range of professions and graduate programs where they can meet the emerging challenges and opportunities arising from climate change. Climate Change Studies is a joint program between the College of Forestry and Conservation, College of Arts and Sciences, and College of Technology.

### Requirements for a Minor

To earn a minor in Climate Change Studies, students must successfully complete 21.0 credits: a 3.0 credit interdisciplinary introductory course (CCS 203) and 6.0 credits in each of the three areas listed below.

Course # and Description	Credits
CCS 103X Climate Change: Science & Society	3
<b>Six credits from the following: Climate Change Science Courses</b>	<b>Credits</b>
CCS/GEO 108N (GEOS 108N) Climate Change - Past and Future	3
CCS/ERTH 303N Weather and Climate	3
CCS/GEO 482 (GEOS 382) (UG) Global Change	3
CCS/NRSM 408 (FOR 408/BIOL 408/GEO 408) Global Cycles and the Climate Change	3
CCS/GEO 488 (GEOS 488) (UG) Snow, Ice and Climate	3
<b>Six credits from the following: Climate Change Science and Society Courses</b>	<b>Credits</b>
CCS 324 Sustainable Climate Policies: China and the USA	3
CCS 379-COMX/NRSM 349 (COMM 379/EVST 379) Communication, Consumption and Climate	3
CCS/NRSM 449E (RSCN 449) Climate Change Ethics and Policy	3
CCS/ECNS 445 (ECON 445) International Environmental Economics and Climate Change	3
NRSM 426 Climate and Society	3
<b>Six credits from the following climate change solutions courses, with at least one course taken in category A, which requires practical application</b>	<b>Credits</b>
<b>Climate Change Solutions Courses: Category A</b>	
CCS/NRG 298 Energy Internship	2
CCS 398 Climate Change Internship/Service Learning	2-4
CCS 391 Climate Change Practicum	2-4
CCS/ENST 485 (EVST 485) Environmental Citizenship	3
<b>Category B</b>	
CCS/NRG 102 Intro to Energy Systems II	3
CCS/BGEN 160S (TASK 160S/BUS 160S) Issues in Sustainability	3
CCS/NRG 191 Energy Practicum	2
CCS/NRG 235 (CAR 235T) Building Energy Conservation	3
CCS/NRG 242 Solar & Wind Systems	3
CCS 352 Climate Change Field Studies	3

### Faculty

#### Science Area

Dr. Rebecca Bendick, Assistant Professor, Department of Geosciences

Dr. Cory Cleveland, Assistant Professor of Soil Science

Dr. Michael De Grandpre, Professor, Department of Chemistry

Dr. Sarah Halvorson, Associate Professor and Departmental Chair of Geography

Dr. Joel Harper, Associate Professor, Department of Geosciences

Dr. Anna Klene, Associate Professor, Department of Geography

Dr. Scott Mills, Professor of Wildlife Population Ecology

Dr. Curtis Noonan, Associate Professor, Department of Biomedical and Pharmaceutical Sciences

Dr. Steve Running, Regent's Professor of Ecology, Director of Numerical Terradynamics Simulation Group

**Society Area**

Dr. Richard Barrett, Emeritus Professor, Department of Economics, State Legislator

Dr. Len Broberg, Professor, Department of Environmental Studies

Dr. James Burchfield, Interim Dean and Research Professor, College of Forestry and Conservation

Dr. Ulrich Kamp, Associate Professor, Department of Geography

Dr. Derek Kellenberg, Assistant Professor, Department of Economics

Dr. Peter Koehn, Professor, Department of Political Science

Dr. Anna Prentiss, Associate Professor, Department of Anthropology

Dr. Christopher Preston, Associate Professor, Department of Philosophy

Dr. Rebecca Richards, Professor, Department of Sociology

Dr. Steve Schwarze, Associate Professor, Department of Communication Studies

Dr. Dane Scott, Director, Center of Ethics, Associate Professor, Department of Society and Conservation

Dr. Terry Weidner, Director, Mansfield Center

**Solutions Area**

Dr. Georgia Cobbs, Associate Professor, Department of Curriculum and Instruction

Dr. Brian Kerns, Engineer, Alternative Energy Technology Program

Dr. Martin Horejsi, Assistant Professor, Department of Curriculum and Instruction

Nicky Phear, Instructor and Program Coordinator, Climate Change Studies

Dr. Bradley Layton, Program Director, Energy Technology Program

Dr. Robin Saha, Assistant Professor, Department of Environmental Studies

Lisa Swallow, Program Director, Department of Business Technology

Nadia White, Assistant Professor, School of Journalism

Dr. Laurie Yung, Director of Wilderness Institute; Research Assistant Professor

**College of Forestry and Conservation Course Descriptions**

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Animal Science (ANSC) - Course Descriptions**

262, 320

**Forestry (FORS) - Course Descriptions**

140, 191, 192, 200, 201, 230, 232, 235, 240, 241N, 250, 291, 292, 302, 307, 320, 330, 331, 333, 340, 341, 342, 347, 350, 351, 391, 392, 398, 430, 434, 435, 436, 437, 440, 441, 442, 447, 480, 481, 491, 492, 495, 498, 499, 500, 503, 504, 505, 508, 521, 533, 538, 544, 545, 547, 548, 551, 594, 595, 596, 598, 599, 697, 699

**Natural Resource Science and Management (NRSM) - Course Descriptions**

121S, 170, 180, 191, 246N, 265, 271N, 273, 311, 321, 335, 345, 346, 352, 360, 363, 365, 370S, 371, 373, 374, 379, 380, 385, 386, 398, 404, 405, 406, 408, 410, 415, 422, 424, 425, 444, 449E, 455, 460, 462, 463, 475, 485, 489E, 494, 495, 499, 501, 511, 513, 515, 520, 524, 532, 560, 561, 563, 565, 570, 571, 575, 579, 582, 586, 594, 595, 596, 597, 598, 599, 622, 697, 699

**Parks, Tourism & Recreation Management (PTRM) - Course Descriptions**

110S, 191, 210, 217S, 230, 291, 300, 310, 345X, 353, 355, 356, 380, 391, 392, 398, 407, 418, 450, 451, 481, 482, 483, 484, 485, 491, 492, 495, 498, 499, 500, 562, 582, 594, 595, 596, 597, 598, 599, 697, 699

**Fish and Wildlife Science and Management (WILD) - Course Descriptions**

105N, 170, 191, 240, 275, 291, 346, 370, 373, 374, 391, 392, 398, 408, 410, 460, 470, 472, 480, 491, 492, 494, 499, 540, 542, 545, 560, 562, 563, 564, 568, 570, 572, 575, 576, 580, 591, 594, 596, 597, 599, 697, 699

**College of Forestry and Conservation****Faculty**

**James Burchfield, Dean**

**Mike Patterson, Associate Dean**

The undergraduate curricular programs at the College of Forestry and Conservation (CFC) provide the knowledge and skills for students to become effective natural resource professionals. They offer a sequence of learning experiences that build the necessary confidence and critical thinking capabilities to help solve some of humanity's most pressing problems in the stewardship of our shared natural heritage.

Undergraduate programs at the College of Forestry and Conservation have evolved into a unique action-oriented, interdisciplinary experience where students integrate real-world issues into their coursework. Students will utilize the latest technologies in the assessment and analysis of natural resource challenges, and they will simultaneously apply this learning in multiple field settings across the unparalleled natural settings of Montana.

The five undergraduate majors in the College are science degrees, leading to a Baccalaureate of Science (B.S.) degree. These majors are Forestry; Parks, Tourism, and Recreation Management; Wildlife Biology; Resource Conservation; and Wildland Restoration. These majors provide a strong foundation in knowledge about natural systems, science, analytical skills, and policy, but each is tailored to the specialized needs of a particular career track or research discipline in the natural resources management professions. Students have an opportunity to emphasize the disciplinary concentration of their choosing, but all students will receive a balance of ecological, physical, and social sciences.

Students uncertain about which specific major best meets their interests and needs will find that the ability to move between majors early in their student career is facilitated by a common foundational core of coursework. Each major's curricular program is designed to fulfill the broad educational goals for all graduates of The University of Montana, as well as the specific disciplinary requirements of civil service and professional accrediting organizations.

***Preparation to Enter the College of Forestry and Conservation***

Students planning to enter the College of Forestry and Conservation should attain a sound background in English,

social studies, mathematics, biology, and other sciences. Entering freshmen and non-resident transfer students will be admitted in accordance with general university admission requirements listed previously in this catalogue. Resident transfer students or current UM students wanting to change their major to the College of Forestry and Conservation must have a grade point average of 2.0 or higher to be admitted.

### ***Educational Framework at the College of Forestry and Conservation***

Students at the College of Forestry and Conservation are expected to demonstrate a range of capabilities before graduation so they can better address the multiple demands facing modern natural resource managers. The College fosters learning through a combination of innovative teaching and scholarship with a focus on state of the art knowledge in the major fields and emerging natural resource challenges. Each major's curriculum follows a similar seven part structure that encourages the sequenced development of foundational knowledge, applied skills, and creative problem-solving. The following description illustrates how the curricula are organized to present the most efficient and engaging pathway to the full development of student capabilities:

#### ***Foundations of Science***

Students will be required to have a solid understanding of the primary physical, chemical, and biological drivers of natural systems. Required for all students are an introductory course in inorganic chemistry and a basic biological science course (there are several introductory biology classes that will apply, depending on a student's major). Students in the Wildland Restoration major and the Forest Operations option within the Forest Management major will also take an introductory course in physics. Parks, Tourism, and Recreation Management majors will take introductory coursework in psychology or sociology to understand social drivers in relation to natural systems. Additionally, all students are encouraged to take one of the four introductory courses offered by the College that draw together multiple disciplines to demonstrate the historical and cultural dimensions of conservation: The Nature of Montana (NRSM 121S (RSCN 121S)); Careers in Natural Resources (NRSM 180 (WBIO/FOR 180)); Wildlife and People (WILD 105N (WBIO 105N)); or International Forestry (NRSM 170 (RSCN/FOR 170)). In the sophomore year most students will take an introductory course in soils to become familiar with the cycling of energy and nutrients in terrestrial ecosystems while students in the Wildlife Biology major will take coursework in molecular biology and genetics. In their junior year all students take an upper division ecology class. The University's general education requirements and specific College majors ensure all students take additional natural and social science classes to provide the foundations necessary to understand and manage the natural and social systems underlying human uses of natural resources.

#### ***Quantitative and Analytical Skills***

All students at the College will attain the quantitative analytical and measurement foundations needed for their professional or research career path. The freshmen level quantitative requirement rests on a proficiency in mathematics that is obtained through one of two routes depending on major: a college algebra/linear math/probability track or an introductory calculus track. All sophomore students take a statistics class which many fulfill through a special course in the analysis of multiple forms of measurement of natural resource characteristics, called Biometrics. Although not required for all majors, most students decide to take a special course in mapping that combines the common applications of geographic information systems (GIS) and the basic attributes of spatial analysis.

#### ***Applied Field Skills***

A tremendous advantage of an education at the College of Forestry and Conservation is the proximity of an unlimited field laboratory in both the managed and untrammled landscapes of Montana. All undergraduates will have multiple opportunities to learn in field settings as a part of lab sections associated with many of CFC's courses. Some specific academic opportunities, such as the College's Wilderness and Civilization Program, will take students on extended backcountry trips to gain first-hand knowledge of wild settings. Exceptional hands-on learning experiences are provided at the College's Lubrecht Experimental Forest located less than 30 miles from campus on the Blackfoot River. Since students must demonstrate competency and confidence in outdoor field work to be a successful natural

resource professional, students are required to select a sophomore-level field measurements course within their major. Although advanced transfer students (>59 transfer credits) to the College; Parks, Tourism, and Recreation Students; and Wildlife Biology students may apply other relevant experiences to their field training requirement, completion of a field measurements course is expected before students may enroll in upper division courses, as the needed skills to succeed in subsequent, more advanced field labs depend on a solid core of field capabilities.

### **Communication**

Effectiveness in addressing our shared problems in natural resource management depends on a person's ability to communicate. College of Forestry and Conservation students will graduate with considerable training in written communication with both lower-division requirements at the 200-level and a series of upper division courses where writing constitutes the major part of course expectations. Each major in the College provides a "distributed writing" menu for students entering into upper-division courses, such that each student will take at least three classes where writing skills are evaluated. Students will also fulfill university-wide writing requirements, including the successful passage of the Writing Proficiency Examination prior to entering into upper division coursework. All students take a public speaking class. Students wishing to gain more experience in public speaking and communication can also take a special class Natural Resources Interpretation (PTRM 310 (RECM 310)).

### **Professional Specialization**

Each academic major in the College contains a sequence of courses and learning experiences tailored to the student's specific professional aspirations. Clusters of courses within a major prepare students to obtain the necessary knowledge and professional competencies to perform the tasks of a modern resource manager or research scientist. Course work combines biophysical and social science training to allow students to recognize and navigate the complexities and context of conservation sciences and natural resources management. Thus, each major has courses representing both ecological and policy development processes, as well as a progression of classes covering the knowledge areas and topics of major natural resources disciplines. Students will take a core of required courses (described in the sections below) as well as a balanced selection of "professional electives" to acquire sufficient balance and depth in their chosen field to emerge with an identified professional specialty.

### **Work Experience and Service Learning**

Students at the College of Forestry and Conservation will apply what they have learned in real-world settings prior to graduation. This work experience can be obtained in many ways, via internships, summer employment, study abroad opportunities, or specially designed "service learning" courses. Service experiences will allow students to obtain credit, learn new material, and offer critical work to established organizations to advance conservation goals. In general, requirements for work experience or internships will be counted based on the number of hours worked over the course of a student's entire undergraduate career, with 400 hours or more of work necessary for graduation.

### **Capstone Experience**

Each academic major in the College offers an opportunity for students to synthesize previous learning in a real-world project via either an undergraduate research project or the completion of a special, integrative "capstone" course. Undergraduate research projects are designed through close supervision of a student's academic advisor, while the capstone courses bring together a team of faculty who facilitate student oriented problem solving through a focus on an applied management problem or real world case studies that offer vital experience in the preparation of students for their professional careers.

### **Other University-wide Requirements for Academic Achievement**

The University of Montana has established standards for graduation of all students that include demonstrated proficiencies in oral and written communication and symbolic systems as well as a selection of diverse learning experiences identified as "general education courses." The College's expectations for writing and quantitative skills more than fulfill university-wide requirements for communication and symbolic systems, and many of the courses

offered by CFC also fulfill the categories within general education requirements. All CFC majors also offer sufficient opportunity for students to choose among the full range of UM courses as "free electives," such that each person might be able to explore new areas of learning at their own discretion.

### **Student Advising**

All College of Forestry and Conservation students will have a full-time faculty advisor as well as the extensive advising support provided by the College's Office of Student Services. Students are paired with a faculty advisor who matches their academic and professional interests and serves as a mentor and advocate for students as they progress through individual academic achievements. Students may change their advisor at any time as their specific interests develop or change. New students needing an advisor and current students who wish to change advisors should contact the College's Office of Student Services. Students are required to consult with their advisors before each registration period but remain responsible for ensuring they fulfill the published requirements for graduation.

### **Graduation Auditing**

All students will complete a graduation audit in the semester prior to their graduation to make sure that they have a sure pathway for successful completion of their chosen major.

### **Faculty**

#### **Professors**

Jill M. Belsky, Ph.D., Cornell University, 1991

William T. Borrie, Ph.D., Virginia Polytechnic Institute and State University, 1995 (Director, Parks, Tourism & Recreation Management Program)

Perry J. Brown, Ph.D., Utah State University, 1971

James A. Burchfield, Ph.D., University of Michigan, 1991 (Dean)

Edwin J. Burke, Ph.D., Colorado State University, 1978

Wayne A. Freimund, Ph.D., University of Minnesota, 1993

Paul R. Krausman, Ph.D., University of California-Santa Cruz, 1993

L. Scott Mills, Ph.D., University of California, Santa Cruz, 1993

R. Neil Moisey, Ph.D., The University of Montana, 1997

Norma Nickerson, Ph.D., University of Utah, 1989 (Research)

Martin Nie, Ph.D., Northern Arizona, 1998

Michael Patterson, Ph.D., Virginia Polytechnic Institute and State University, 1993 (Associate Dean)

Daniel H. Pletscher, Ph.D., Yale University, 1982 (Director, Wildlife Biology Program)

LLoyd Queen, Ph.D., University of Nebraska, Lincoln, 1988

David Naugle, Ph.D., South Dakota State University, 1998

Steven W. Running, Ph.D., Colorado State University, 1979 (Chair of Ecosystem & Conservation Sciences)

Stephen F. Siebert, Ph.D., Cornell University, 1990

Diana Six, Ph.D., University of California, Riverside, 1997



Ronald H. Wakimoto, Ph.D., University of California-Berkeley, 1978

**Associate Professors**

Woodman Chung, Ph.D., Oregon State University, 2002

Elizabeth M. Dodson, Ph.D., Oregon State University, 2004 (Director, Forestry Program)

Lisa A. Eby, Ph.D., Duke University, 2001

Solomon Dobrowski, Ph.D., University of California (Davis), 2005

John M. Goodburn, Ph.D., University of Wisconsin, Madison, 2004

Mark Hebblewhite, Ph.D., University of Alberta, 2006

Christopher Keyes, Ph.D., Oregon State University, 2002 (Research)

John Kimble, Ph.D., Oregon State University, 1995 (Research)

Dane Scott, Ph.D., Vanderbilt University, 1999

Carl Seielstad, Ph.D., University of Montana, 2003 (Research)

Tyron Venn, Ph.D., University of Queensland, 2004

Laurie Yung, Ph.D., University of Montana, 2003 (Director, Resource Conservation Program)

**Assistant Professors**

Brady Allred, Ph.D., Oklahoma State University, 2012

David Affleck, Ph.D., Yale University, 2006

Ashley Ballantyne, Ph.D., Duke University, 2006

Keith Bosak, Ph.D., University of Georgia, Athens, 2006

Cory Cleveland, Ph.D., University of Colorado-Boulder, 2001

Elizabeth Covelli, Ph.D., The Pennsylvania State University, 2011

Kelsey Jensco, Ph.D., Montana State University, 2010

Andrew Larson, Ph.D., University of Washington, 2009

Paul Lukacs, Ph.D., Colorado State University, 2005

Laurie Marczak, Ph.D., University of British Columbia, 2007

Alexander Metcalf, Ph.D., The Pennsylvania State University, 2010

Cara R. Nelson, Ph.D., University of Washington, 2004 (Director, Wildland Restoration Program)

James Riddering, Ph.D., University of Montana, 2004 (Research)

**Faculty Associates**

Carol Brewer, Ph.D., University of Wyoming, 1993

Robert Crabtree, Ph.D., University of Idaho, 1988

Thomas DeLuca, Ph.D., Iowa State University, 1993

Rich Harris, Ph.D., University of Montana, 1993

Peter Kolb, Ph.D., University of Idaho, 1996

Michael Mitchell, Ph.D., North Carolina State University, 1995

Anna Sala, Ph.D., University of Barcelona, 1992

Michael Schwartz, Ph.D., University of Montana, 2001

Christopher Servheen, Ph.D., University of Montana, 1981

Kathy Tonnessen, Ph.D., University of California, Berkley, 1982

#### **Emeritus Professors**

Paul B. Alaback, Ph.D., Oregon State University, 1980

David H. Jackson, Ph.D., University of Washington, 1975

Stephen F. McCool, Ph.D., University of Minnesota, 1970

Alan McQuillan, Ph.D., University of Montana, 1981

Thomas J. Nimlos, Ph.D., University of Wisconsin, 1959

Robert D. Pfister, Ph.D., Washington State University, 1972

Donald F. Potts, Ph.D., State University of New York, 1979

Robert R. Ream, Ph.D., University of Wisconsin, 1963

Jack Ward Thomas, Ph.D., University of Massachusetts, 1972

Hans R. Zuuring, Ph.D., Iowa State University, 1975

## **Forestry**

### **Bachelor of Science in Forestry**

#### **Forest Operations and Applied Restoration Option**

In addition to special degree requirements listed previously, the students selecting the Forest Operations and Applied Restoration option must complete the following required courses or their equivalent, if transferred from another college or university. Transference and equivalency will be determined by the University and College of Forestry and Conservation. Electives may be taken at any time, keeping in mind these requirements as well as the University's General Education requirements for graduation.

<b>First Year</b>	<b>Credits</b>
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3
WRIT 101 (ENEX 101) College Writing I	3
M 151 (MATH 121) Precalculus	4
BIOO 105N (BIOL 120N) Introduction to Botany	3
M 162 (MATH 150) Applied Calculus	4
PHSX 205N and 206N (PHYS 111N and PHYS 113N) College Physics I and Lab	5
ECNS 201S (ECON 111S) Introduction to Microeconomics	3
NRSM 180 (FOR 180) Careers in Natural Resources or NRSM 121S (RSCN 121S) Nature of Montana	2
FORS 200 (FOR 200) Forest Resources Measurements Camp	2
Electives and General Education	4
<b>Second Year</b>	<b>Credits</b>
FORS 235 (FOR 235) Problem Solving for Forest Operations	4

FORS 201 (FOR 201) Forest Biometrics	3
ENSC 245N (FOR 210N) Introductory Soils	3
NRSM 200 Natural Resources Professional Writing	3
FORS 241N (FOR 241N) Dendrology	3
GPHY 284 Introduction to GIS and Cartography	3
NRSM 265 (FOR 265) Elements of Ecological Restoration	3
Nature and Society Elective	3
Electives and General Education	3
<b>Third and Fourth Years</b>	
FORS 302 (FOR 302) Forest Mensuration	3
FORS 320 (FOR 320) Forest Environmental Economics	3
FORS 330 (FOR 330) Forest Ecology	3
NRSM 385 (FOR 385) Watershed Hydrology	3
FORS 340 (FOR 340) Forest Products Manufacturing	2
FORS 341 (FOR 341) Timber Harvesting and Roads	3
FORS 347 (FOR 347) Multiple Resource Silviculture	3
FORS 351 (FOR 351) Photogrammetry and Remote Sensing	3
NRSM 422 (FOR 422) Natural Resources Policy & Administration	3
FORS 434 (FOR 434) Advanced Forest Roads	2
FORS 435 (FOR 435) Advanced Timber Harvesting	2
FORS 436 (FOR 436) Forest Operations Evaluation and Project Planning	3
FORS 437 (FOR 437) Forest Operations and Applied Restoration Capstone	3
NRSM 455 (FOR 455) Riparian Ecology and Management	3
Electives and General Education	22
<b>The following courses satisfy the nature and society elective requirement:</b>	
ENST 230H (EVST 167H) Nature and Society	3
ENST 225 (EVST 225) Community and Environment	3
PHL 422 (PHIL 427E) Environmental Philosophy	3

**Forest Resources Management Option**

In addition to special degree requirements listed previously, the students selecting the Forest Resources Management option must complete the following required courses or their equivalent, if transferred from another college or university. Transference and equivalency will be determined by the University and College of Forestry and Conservation. Electives may be taken at any time, keeping in mind these requirements as well as the University's General Education requirements for graduation.

First Year	Credits
BIOO 105N (BIOL 120N) Introduction to Botany	3
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3
COMX 111A (COMM 111A) Introduction to Public Speaking OR THTR 120A (DRAM 111A) Acting for Non-Majors	3
ECNS 201S (ECON 111S) Introduction to Microeconomics	3
WRIT 101 (ENEX) College Writing I	3
M 151 (MATH 121) Precalculus	4
M 162 (MATH 150) Applied Calculus	4
Electives and General Education	5
Second Year	Credit
FORS 201 (FOR 201) Forest Biometrics	3
NRSM 200 Natural Resources Professional Writing	3
ENSC 245N (FOR 210N)Soils	3
FORS 240 (FOR 240) Tree Biology	2
FORS 241N (FOR 241N) Dendrology	3
GPHY 284 Introduction to GIS and Cartography	3
<b>Social Science Restricted Elective (Select one course from the following list)</b>	
SOCI/ENST 225 (EVST 225) Community and Environment	3
ENST 230H (EVST 167H) Nature and Society	3
NRSM 370S (RSCN 370S) Wildland Conservation Policy and Governance	3
<b>Management Applications Restricted Elective (Select at least five credits from the following list)</b>	
FORS 230 (FOR 230) Forest Fire Management	2
FORS 232 (FOR 232) Forest Insects and Diseases	2
NRSM 360 (FOR 360) Range Management	3
PTRM 217S (RECM 217S) Wildland Recreation Management	3
WILD 275 (FOR 275) Wildlife Conservation	2
Electives and General Education	4
Third and Fourth Years	Credits
FORS 302 (FOR 302) Forest Mensuration	3
FORS 320 (FOR 320) Forest Environmental Economics	3
FORS 330 (FOR 330) Forest Ecology	3

FORS 340 (FOR 340) Forest Products Manufacturing	2
FORS 341 (FOR 341) Timber Harvesting and Roads	3
FORS 347 (FOR 347) Multiple Resource Silviculture	3
FORS 351 (FOR 351) Photogrammetry and Remote Sensing	3
NRSM 385 (FOR 385) Watershed Hydrology	3
NRSM 422 (FOR 422) Natural Resource Policy/Administration	3
FORS 440 (FOR 440) Timber Management I	3
FORS 481 (FOR 481) Forest Planning	3
Professional Electives	15
Electives and General Education	26
<b>Professional Electives: Students must select at least five courses among the three areas of emphasis listed below so that at least 15 total professional elective credits are included in the degree program.</b>	
<b>Biophysical Sciences (select at least one course)</b>	
WILD 373 (WBIO 373) Wildlife Techniques	2
WILD 370 (WBIO 370) Wildlife Habitat Conservation & Management	3
NRSM 335 (FOR 332) Environmental Entomology	3
FORS 342 (FOR 342) Wood Anatomy, Properties and Identification	3
BIOO 320 (BIOL 316) Plant Form and Function	5
BIOO 335 (BIOL 350) Rocky Mountain Flora	3
BIOO 433 (BIOL 444) Plant Physiology	4
BIOB 272 (BIOL 223) Genetics and Evolution	4
PHSX 205N and 206N (PHYS 111N and PHYS 113N) College Physics I and Lab	5
FORS 430 (FOR 430) Forest Meteorology	3
FORS 350 (FOR 350) Forestry Applications of GIS	3
<b>Management Applications (select at least one course)</b>	
FORS 230 (FOR 230) Fire Management*	2
NRSM 360 (FOR 360) Rangeland Management*	3
PTRM 217S (RECM 217S) Wildland Recreation Management*	3
NRSM 455 (FOR 455) Riparian Ecology and Management	3
FORS 307 (FOR 307) Forest Vegetation Management Models	3
FORS 447 (FOR 447) Advanced Silviculture	3
FORS 331 (FOR 331) Wildland Fuel Management	3
NRSM 385 (FOR 485) Watershed Management	3
FORS 441 (FOR 441) Timber Management II	3
FORS 480 (FOR 480) Forest and Rangeland Area Planning and Design	3
PTRM 310 (RECM 310) Natural Resources Interpretation	3
<b>Policy and Social Sciences (select at least one course)</b>	
SOCI/ENST 225 (EVST 225) Community and Environment*	3
ENST 230H (EVST 167H) Nature and Society*	3
NRSM 424 (FOR 424) Community Forestry and Conservation	3
NRSM 379 (FOR 379) Collaboration in Natural Resources Decisions	3
NRSM 475 (FOR 475) Environment and Development	3
NRSM 425 (FOR 425) Natural Resource and Environmental Economics	3
NRSM 370S (RSCN 370S) Wildland Conservation Policy and Governance*	3
PTRM 482 (RECM 482) Wilderness and Protected Area Management	3
PTRM 485 (RECM 485) Recreation Planning	3
<b>*If these courses are selected as restricted electives they may not be used to fulfill professional electives</b>	

## Parks, Tourism, & Recreation Management

### Special Degree Requirements

The B.S. in Parks, Tourism & Recreation Management degree is designed to prepare students for professional positions developing and managing nature-based recreation experiences and park resources for public land management agencies, nonprofit organizations, and the nature-based tourism industry. Students pursuing this degree must choose between an option in Recreation Resources Management or Nature-Based Tourism. The Recreation Resources Management option provides the educational background necessary for evaluating and managing wild lands to protect their recreational, heritage, and ecological values. The Nature-Based Tourism option is designed to combine an understanding of social, cultural, political, environmental, and economic contexts surrounding tourism in a natural resource setting. All students learn the processes and conceptual skills needed to determine alternative management strategies, make management decisions, and carry out management programs. Included are courses leading to an understanding of the basic ecological characteristics of recreational lands. Students also take courses dealing with human behavior and management. Emphasis is placed on presenting problems that would be encountered while managing national parks and forests, state and

regional parks, wilderness areas, and other recreation resources of international and national significance.

### Special Degree Requirements

Students pursuing the B.S. in Parks, Tourism & Recreation Management degree complete the following courses (or their equivalent if transferred from another college or university). Transfer credits and course equivalency will be determined by the University and the College of Forestry and Conservation. In addition, students are required to take a practicum in Parks, Tourism & Recreation Management, PTRM 495 (RECM 460). This is a work-learning experience that involves at least 10 weeks full-time employment in a professional work environment.

PTRM 495 (RECM 460) has a prerequisite of 400 previous hours of relevant work experience. Electives may be taken at any time, keeping in mind these courses as well as the University's General Education requirements for graduation. See also the graduation requirements for the College of Forestry and Conservation listed previously in the catalog.

### Recreation Resources Management Option

<b>First Year</b>	<b>Credits</b>
PTRM 110S (RECM 110S) Introduction to Parks, Recreation and Tourism	3
NRSM 180 (RECM 180) Careers in Natural Resources, or WILD 105N (WBIO 105N) Wildlife and People, or NRSM 121S (RSCN 121S) Nature of Montana	2-3
WRIT 101 (ENEX 101) College Writing I	3
BIOB 170N (BIOL 108N) Principles Biological Diversity or BIOE 172 (BIOL 121N) Introductory Ecology	3
PSYX 100S (PSYC 100S) Introduction to Psychology	4
CHMY 121N (CHEM 151N) Intro to General Chemistry	3
COMX 111A (COMM 111A) Introduction to Public Speaking	3
M 115 (MATH 117) Probability and Linear Mathematics	3
Electives and General Education	6
<b>Second Year</b>	<b>Credits</b>
ENSC 245N (FOR 210N) Soils	3
PTRM 210 (RECM 210) Nature-Based Tourism	3
PTRM 230 (RECM 230) Programming in Recreation	3
STAT 216 (MATH 241) Statistics, or FORS 201 (FOR 201) Forest Biometrics, or SOCI 202 (SOC 202) Social Statistics	3-4
PTRM 217S (RECM 217S) Wildland Recreation Management	3
NRSM 200 Natural Resources Professional Writing	3
ECNS 201S (ECON 111S) Principles of Microeconomics	3
GPHY 284 Introduction to GIS and Cartography	3
Electives and General Education	6
<b>Third Year</b>	<b>Credits</b>
FORS 330 (FOR 330) Forest Ecology, or NRSM 462 (FOR 462) Range Ecology	3
PTRM 380 (RECM 380) Recreation Administration and Leadership	4
NRSM 385 (FOR 385) Watershed Hydrology	3
PTRM 300 (RECM 300) Recreation Behavior	3
PTRM 310 (RECM 310) Natural Resources Interpretation	3
PTRM 450 (RECM 450) Pre-practicum Professional Preparation	1
Electives and General Education	9
<b>Summer</b>	<b>Credits</b>
PTRM 495 (RECM 460) Practicum in Parks, Tourism and Recreation Management	6-9
<b>Fourth Year</b>	<b>Credits</b>
PTRM 482 (RECM 482) Wilderness and Protected Area Managements	3
PTRM 484 (RECM 484) Parks, Tourism & Recreation Management Field Measurement Techniques	3
PTRM 485 (RECM 485) Recreation Planning	4
NRSM 422 (FOR 422) Natural Resource Policy/Administration, or WILD 410 (WBIO 410) Wildlife Biology and Biopolitics	3
Electives and General Education	9-14

### Nature-Based Tourism Option

<b>First Year</b>	<b>Credits</b>
PTRM 110S (RECM 110S) Introduction to Parks, Recreation, and Tourism	3
NRSM 180 (RECM 180) Careers in Natural Resources, or WILD 105N (WBIO 105N) Wildlife and People, or NRSM 121S (RSCN 121S) Nature of Montana	2-3
WRIT 101 (ENEX 101) College Writing I	3
BIOB 170N (BIOL 108N) Principles Biological Diversity or BIOE 172N (BIOL 121N) Introductory Ecology	3
SOCI 101S (SOC 110S) Introduction to Sociology	3
COMX 111A (COMM 111A) Introduction to Public Speaking	3
CHMY 121N (CHEM 151N) Intro to General Chemistry	3
M 115 (MATH 117) Probability and Linear Mathematics	3

Electives and General Education		6
	<b>Second Year</b>	<b>Credits</b>
ENSC 245N (FOR 210N) Soils		3
PTRM 210 (RECM 210) Nature-Based Tourism		3
PTRM 230 (RECM 230) Programming in Recreation		3
STAT 216 (MATH 241) Statistics, or FORS 201 (FOR 201) Forest Biometrics, or SOCI 202 (SOC 202) Social Statistics		3-4
PTRM 217S (RECM 217S) Wildland Recreation Management		3
NRSM 200 Natural Resources Professional Writing		3
ACTG 201 (ACCT 201) Principles of Financial Accounting		3
ECNS 201S (ECON 111S) Principles of Microeconomics		3
Electives and General Education		6
	<b>Third Year</b>	<b>Credits</b>
FORS 330 (FOR 330) Forest Ecology or NRSM 462 (FOR 462) Range Ecology		3
BMKT 325 (MKTG 360) Principles of Marketing		3
PTRM 380 (RECM 380) Recreation Administration and Leadership		4
PTRM 300 (RECM 300) Recreation Behavior		3
BMKT 337 (MKTG 362) Consumer Behavior		3
PTRM 310 (RECM 310) Natural Resources Interpretation		3
PTRM 450 (RECM 450) Pre-practicum Professional Preparation		1
Electives and General Education		12
	<b>Summer</b>	<b>Credits</b>
PTRM 495 (RECM 460) Practicum in Parks, Tourism and Recreation Management		6-9
	<b>Fourth Year</b>	<b>Credits</b>
PTRM 451 (RECM 451) Tourism and Sustainability		3
PTRM 483 (RECM 483) Commercial Recreation, Marketing, and Tourism		3
PTRM 484 (RECM 484) Parks, Tourism & Recreation Management Field Measurement Techniques		3
NRSM 475 (FOR 475) Environment and Development		3
NRSM 422 (FOR 422) Natural Resource Policy/Administration or WILD 410 (WBIO 410) Wildlife Biology and Biopolitics		3
NRSM 379 (FOR 379) Collaboration in Natural Resource Decisions		3
Electives and General Education		3-7

## Resource Conservation

**Laurie Yung, Associate Professor, Resource Conservation Program Director**

The challenging and rapidly evolving field of environmental conservation requires broad training and the ability to integrate and communicate across disciplines. Resource Conservation is an interdepartmental undergraduate major that prepares students for the diverse opportunities that now exist in environmental conservation, natural resource management, and sustainable livelihoods and communities. Students can choose a more structured area of study in the natural sciences, such as ecology or hydrology, or emphasize emerging sub-disciplines such as wildland fire management, natural resource economics, or climate and environmental change. Students can also integrate across disciplines and focus on environmental policy and natural resources planning, wilderness studies, sustainable livelihoods and community conservation, or international conservation. For more information on different curricular tracks within the Resource Conservation major, please see: [www.cfc.umt.edu/rc](http://www.cfc.umt.edu/rc). In addition to degree requirements listed below, students selecting the Bachelor of Science in Resource Conservation should contact their faculty advisor to approve their curriculum.

### Core Resource Conservation Requirements

#### Oral and Written Communication:

- COMX 111A (COMM 111A) (Introduction to Public Speaking) OR THTR 120A (DRAM 111) (Introduction to Acting)
- WRIT 222 (Technical Writing) or NRSM 200 Natural Resources Professional Writing
- At least three of the following courses (to fulfill the major requirement and the general education requirement for upper division writing): PTRM 300 (RECM 300), FORS 330 (FOR 330), FORS 341 (FOR 341), FORS 342 (FOR 342), FORS 347 (FOR 347), NRSM 379 (EVST/FOR/RSCN 379), NASX 403 (NAS 403), WILD 410 (WBIO 410), BIOE 428 (BIOL 366), FORS 437 (FOR 437), FORS 440 (FOR 440), NSRM 444 (FOR 444), NRSM 445, NRSM 462 (FOR/RSCN 462), NRSM 475 (FOR 475), NRSM 489E (FOR 489E), FORS 499 (FOR 497), or NRSM 499 (or, one writing course, such as PTRM 451 (RECM 451) or PTRM 482 (RECM 482))

**Quantitative Skills:**

- . Math, one of the following courses: M 115 (MATH 117) (Probability and Linear Math), M 121 (MATH 111) (College Algebra), M 122 (MATH 112)(College Trigonometry), M 151 (MATH 121) (Precalculus), M 162 (MATH 150) (Applied Calculus)
- . Statistics, one of the following courses: STAT 216 (MATH 241) (Introduction to Statistics), SOCI 202 (SOC 202) (Social Statistics), FORS 201 (FOR 201) (Forest Biometrics)
- . GPHY 284 (Intro to GIS and Cartography) or equivalent, or an additional math course (a math course listed above, but not already taken)

**Natural and Social Sciences:**

- . Biology, one of the following Courses: BIOB 160N (BIOL 110N) (Principles of Living Systems), BIOB 170N (BIOL 108N) (Principles Biological Diversity), BIOO 105N (BIOL 120N) (Introduction to Botany), BIOE 172N (BIOL 121N) (Introductory Ecology)
- . CHMY 121N (CHEM 151N) Introduction to General Chemistry
- . ENSC 245N (FOR 210) (Soils) (prerequisite: CHMY 121N (CHEM 151N))
- . Ecology, one of the following courses: FORS 330 (FOR 330) (Forest Ecology), BIOE 370 (BIOL 340) (General Ecology) (prerequisites: BIOB 275 (BIOL 223), STAT 216 (MATH 241)), NRSM 462 (RSCN 462) (Range Ecology) (prerequisites: NRSM 360 (RSCN 360) and plant ecology course)
- . Policy, one of the following courses: NRSM 422 (FOR 422) (Natural Resource Policy/Administration), NRSM 370S (RSCN 370S) (Wildland Conserv Pol/Govrnance), WILD 410 (WBIO 410) (Wildlife Policy & Biopolitics)
- . Social science, one of the following courses: NRSM 379 (FOR/EVST/RSCN 379) (Collaboration in Natural Resource Decisions), NRSM 424 (FOR/RSCN 424) (Community Forestry and Conservation), NRSM 475 (FOR 475) (Environment and Development), NRSM 426 (Climate and Society) or PTRM 300 (RECM 300) (Recreation Behavior)
- . NRSM 489E (FOR 489E) (Ethics, Forestry, and Conservation) or NRSM 449E (Climate Change Ethics and Policy)

**Additional Resource Conservation Requirements**

Students have to take at least 36 traditional letter-graded credits within the College of Forestry and Conservation – all courses with the FORS, NRSM, PTRM, and WILD prefixes will work. In addition, WRIT 222 (FOR 220), ENSC 245N (FOR/RSCN 210N), BIOE 447, and CCS courses taught by College of Forestry and Conservation faculty count toward this requirement. Resource Conservation students typically use these additional credits in the College to obtain depth and/or breadth in areas of interest. There are a number of advising “tracks” that enable specialization within the major. Go to [www.cfc.umt.edu/rc](http://www.cfc.umt.edu/rc) and click on *Areas of Study* for more information.

**Wildlife Biology**

- . Special Degree Requirements
- . Requirements for a Minor

**Daniel H. Pletscher, Professor, Wildlife Biology Director**

The Wildlife Biology Program combines the best features of a liberal arts curriculum with scientific preparation in wildlife conservation. The Program provides students with an extensive knowledge in ecology, population biology, conservation biology, and critical thinking and quantitative skills. Our students receive a strong academic and scientific background with an emphasis on hands-on, experiential learning. The educational requirements for certification by The Wildlife Society can be met within the framework of the undergraduate program.

While some employment opportunities exist in wildlife conservation for students with the baccalaureate degree, we encourage students to continue their education through the master's degree to qualify for most state, federal, and private positions.

Three optional curricula are offered in the Wildlife Biology Program: terrestrial, aquatic, and honors. All three options follow the same schedule of courses for the freshman and most of the sophomore year and then pursue different curricula for the last two years. Each leads to a B.S. in Wildlife Biology. The University is well-suited for instruction in wildlife biology because of the excellent opportunities for field instruction and research at Lubrecht Experimental Forest, Flathead Lake Biological Station, and the Theodore Roosevelt Memorial and Bandy ranches. The Montana Forest and Conservation Experiment Station, the Division of Biological Sciences, and the Montana Cooperative Wildlife Research Unit facilitate research.

**High School Preparation:** In addition to general University admission requirements, the student should elect four years of mathematics and three years of science, including biology, chemistry and physics.

#### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

The Upper-division Writing Expectation must be met by successfully completing BIOE 371 (BIOL 341) and two courses selected from BIOO 470, 475, 320, (BIOL 304, 306, 316), BIOE 428 (BIOL 366); and WILD 408, 470, 499 (WBIO 408, 470, 497).

The student must complete the requirements for one of the options indicated below.

To obtain the B.S. in Wildlife Biology, the student must have a 2.5 grade point average or higher in all courses taken at The University of Montana.

Suggested sequence subject to frequent change. Some courses are offered more than one semester/year.

#### Terrestrial and Aquatic Options

##### Terrestrial Option

First Year	Credits
BIOB 160N (BIOL 110N) Principles of Living Systems	4
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3
CHMY 123N (CHEM 152N) Introduction to Organic and Biochem	3
CHMY 124N (CHEM 154N) Introduction Organic & Biochem Laboratory	2
WRIT 101 (ENEX 101) College Writing I	3
NRSM 180 (WBIO 180) Careers in Natural Resources	2
M 162 (MATH 150) Applied Calculus	4
Electives and General Education	8-14
Summer	Credits
Experiential Learning (For a list of options, contact the Wildlife Biology Office.)	2
Second Year	Credits
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4
BIOB 272 (BIOL 223) Genetics and Evolution	4
BIOO 335 (BIOL 350)* Rocky Mountain Flora	3
COMX 111A (COMM 111A) Introduction to Public Speaking	3
STAT 216 (MATH 241) Statistics or WILD 240 (WBIO 240) Introduction to Biostatistics	3-4
WRIT 222 (FOR 220) Technical Approach to Writing or WRIT 325 Science Writing or WRIT 201 (ENEX 200) College Writing II	2-3
Electives and General Education	11-15
*BIOO 335(BIOL 350)is not required for the Aquatic option	
Third Year	Credits
<b>Two of the following:</b>	
BIOO 470 (BIOL 304) Ornithology	4
BIOO 475 (BIOL 306) Mammalogy	4
BIOO 340 (BIOL 308) Biology and Management of Fishes	4
<b>And one of the following</b>	
FORS 347 (FOR 347) Multiple Resource Silviculture	3
NRSM 360 (FOR 360) Rangeland Management	3
<b>And</b>	
BIOE 370 (BIOL 340) General Ecology	3
BIOE 371 (BIOL 341) General Ecology Lab	2
WILD 346 (WBIO 446) Wildlife Physiological Ecology	3
WILD 370 (WBIO 370) Wildlife Habitat Conservation and Management	3



Electives and General Education	8-14
<b>Fourth Year</b>	
WILD 470 (WBIO 470) Conservation of Wildlife Populations	3
WILD 494 (WBIO 494) Senior Wildlife Seminar	1
WILD 480 (WBIO 480) The Upshot: Applied Wildlife Management	3
<b>And one of the following</b>	
WILD 410 (WBIO 410) Wildlife Policy and Biopolitics	3
NRSM 422 (FOR 422) Natural Resources Policy and Administration	3
Electives and General Education	16-22

#### Aquatic Option

<b>Third Year</b>	
BIOO 320 (BIOL 316) General Botany	5
BIOO 340 (BIOL 308) Biology and Management of Fishes	4
BIOE 370 (BIOL 340) Ecology	3
BIOE 371 (BIOL 341) Ecology Lab	2
BIOM 427/428 (BIOL 400-401) General Parasitology and Laboratory OR	
BIOE 406 (BIOL 406) Behavior and Evolution OR	4
BIOO 462 (BIOL 410) Entomology or WILD 491 Aquatic Invertebrate Ecology	
WILD 346 (WBIO 446) Wildlife Physiological Ecology	3
Electives and General Education	5-11
<b>Fourth Year</b>	
<b>Credits</b>	
WILD 494 (WBIO 494) Senior Seminar	1
BIOE 428 (BIOL 366) Freshwater Ecology	5
WILD 408 (WBIO 408) Advanced Fisheries	3
NRSM 385 (FOR 385) Watershed Hydrology	3
WILD 480 (WBIO 480) The Upshot-Applied Wildlife Management	3
<b>And one of the following</b>	
WILD 410 (WBIO 410) Wildlife Policy and Biopolitics	3
NRSM 422 (FOR 422) Natural Resource Policy and Administration	3
Electives and General Education	12-18

#### Wildlife Biology Honors Emphasis

The honors curriculum is designed particularly for students with strong academic records who intend to do graduate work. Entrance into this emphasis is open to students who, at the beginning of the junior year of the wildlife biology curriculum, have a grade-point average of 3.5 or above and who petition the faculty for entrance (transfer students must have >30 credits at UM).

Honors students must complete either WILD 370, 470, and 494 (WBIO 370, 470 and 494) (terrestrial option) or BIOO 340 (BIOL 308), BIOE 428 (BIOL 366), and WILD 494 (WBIO 494) (aquatic option). Honors students are encouraged to enroll also in WILD 499 (WBIO 497) Senior Thesis. The balance of the coursework for the junior and senior years will be developed in consultation with the honors student's faculty advisor and committee.

All students in the honors emphasis are required to meet with their faculty advisor prior to autumn semester registration of their junior and senior years to work out their course schedules.

#### Requirements for a Minor

To earn a minor in wildlife biology, the student must successfully complete the following coursework: BIOB 170N, 171N (BIOL 108N, 109N); BIOO 101N (BIOL 201N), BIOO 335 (BIOL 350); WILD 105N (WIOB 105N), WILD 275 (FOR 275); FORS 330 (FOR 330) or NRSM 360 (FOR 360); WILD 105N (WBIO 105), NRSM 180 (WBIO 180).

#### Wilderness Studies

##### Wayne Freimund (Professor) Director of Wilderness Institute

Students who successfully complete the requirements of the Wilderness and Civilization Program are eligible for the Wilderness Studies minor. Wilderness and Civilization is an interdisciplinary campus and field-based program. Each year, 25 students investigate wildland conservation and the human-nature relationship through the lenses of policy, ecology, art, Native American Studies, and literature. Wilderness and Civilization combines the strengths of classroom and field learning, interactive classes, innovative faculty, and applied learning through internships. Field

trips include extended backcountry trips as well as shorter field trips examining ecology, environmental issues, land use, and natural history. Wilderness and Civilization offers students the opportunity to explore contemporary conservation debates, make connections between disciplines, and learn how to work for positive change.

Wilderness and Civilization is an undergraduate, immersion program geared toward sophomore-, junior-, and senior-level students in any major. Students take 17.0 credits of campus and field-based courses during the fall, and then continue in the spring with an art course, an internship, a 1.0 credit field course, and a 1.0 credit lecture series. The Wilderness and Civilization program is administered by the Wilderness Institute of the College of Forestry and Conservation. The program is offered in collaboration with the College of Arts and Sciences, the College of Visual and Performing Arts, and the Davidson Honors College.

Students must apply for admission to the Wilderness and Civilization program, which is limited to 25 students each year. Applicants must have a cumulative GPA of 3.0 or higher for all college and university work. Applications are due by April 1 and are available at the Wilderness Institute, University Hall 303.

#### **Requirements for a Minor in Wilderness Studies**

To earn a minor in wilderness studies the student must successfully complete the Wilderness and Civilization program and the course requirements below (24.0 credits).

<b>Course # and Description</b>	<b>Credits</b>
NRSM 373 (RSCN 373) Wilderness and Civilization	3
LIT 373L (ENLT 371) Literature and the Environment/Honors	3
NRSM 271N (RSCN 271N) Conservation Ecology/Honors	3
NRSM 370S (RSCN 370S) Wildland Conservation Policy and Governance	3
NASX 303E (NAS 303E) Ecological Perspectives of Native American Tradition	3
NRSM 273 (RSCN 273) Wilderness and Civilization Field Studies	2
NRSM 398 (RSCN 398) Internship: Wildland Community Project	2
NRSM 371 (RECM 371) Wilderness Issues Lecture Series	1
and	
ARTZ 324A (ART 324A) Environmental Drawing	3
or	
MUSI 304A Sound in the Natural World	3
Total	24

#### **Faculty**

Mary Ann Bonjorni, Professor of Art, College of Visual and Performing Arts

Rich Clow, Professor of Native American Studies, College of Arts and Sciences

Natalie Dawson, Associate Director, Wilderness Institute, College of Forestry and Conservation

Louise Economides, Assistant Professor of English, College of Arts and Sciences

Lee Heuermann, Instructor, School of Music, College of Visual and Performing Arts

Andrew Larson, Assistant Professor of Forest Ecology, College of Forestry and Conservation

David Moore, Professor of English, College of Arts and Sciences

Martin Nie, Professor of Natural Resource Policy, College of Forestry and Conservation

Laurie Yung, Assistant Professor, Director, Resource Conservation, College of Forestry and Conservation

#### **Wildland Restoration**

##### **Bachelor of Science in Wildland Restoration**

Ecological restoration — the process of assisting in the repair of damaged ecosystems— is one of the fastest growing areas of natural resource management. With increasing interest, there is a corresponding need for trained

professionals who understand not only the science of restoration ecology but also the management practices and social factors that lead to successful project implementation. The College of Forestry and Conservation offers a Bachelor of Science and a minor in Wildland Restoration (for more information see: <http://www.cfc.umt.edu/wildland/>).

#### **Bachelor of Science in Wildland Restoration (Aquatic and Terrestrial Options)**

The major in Wildland Restoration prepares students to tackle the complex challenges associated with repairing degraded ecosystems. Students can select one of two options: the Terrestrial Option, which focuses on the repair of terrestrial ecosystems; and the Aquatic Option which focuses on stream, wetland, and groundwater restoration. Both options provide in-depth training in the science of restoration ecology and the management activities and human dimensions of restoration practice. Students engage in field-based learning, contribute to cutting-edge restoration projects, and are challenged to apply ecological theory to restoration practice. The major requires completion of a nine-credit restoration capstone, during which students gain hands-on real-world experience planning and implementing restoration projects in partnership with natural resource management agencies and organizations in western Montana.

A degree in Wildland Restoration prepares students for careers as restoration practitioners with non-profit, private, or governmental agencies and for graduate school in ecology or natural resource management. Students who graduate with this major may qualify for the following federal civil service jobs: biological technician (Series 0404), ecologist (Series GS-408), forester (Series G-460), hydrologist (Series GS-1315) and soil conservationist (Series GS-457). More information on federal civil service requirements can be found at: <http://www.opm.gov/qualifications/standards/indexes/alph-ndx.asp>.

#### **Minor in Wildland Restoration**

In addition to the major, the Wildland Restoration program also offers a minor for students who wish to gain basic competency in restoration while pursuing another UM major.

#### **Bachelors in Wildland Restoration - Aquatic Option**

<b>First Year</b>	<b>Credits</b>
BIOB 160N (BIOL 110N) Principles of Living Systems	4
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3
CHMY 123N (CHEM 152N) Introduction to Organic and Biological Chemistry	3
COMX 111A (COMM 111A) Introduction to Public Speaking	3
GEO 101N/102N (GEOS 100N/101N) General Geology/Lab	3
M 171 (MATH 152) Calculus I	4
NRSM 121S (RSCN 121S) Nature of Montana or NRSM 170 (RSCN 170) International Environmental Change or NRSM 180 (FOR/RECM/WBIO 180) Careers in Natural Resources	2-3
WRIT 101 (ENEX 101) College Writing I	3
Electives and General Education	6
<b>Second Year</b>	<b>Credits</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4
BIOB 272 (BIOL 223) Genetics and Evolution	4
M 172 (MATH 153) Calculus II	4
NRSM 265 (FOR 265) Elements of Ecological Restoration	3
FORS 201 (FOR 201) Forest Biometrics or STAT 216 (MATH 241) Statistics or WILD 240 (WBIO 240) Introduction to Biostatistics	3-4
WRIT 222 Technical Writing or WRIT 325 Science Writing (honors)	2-3
Electives and General Education	7-8
<b>Third and Fourth Years</b>	<b>Credits</b>
BIOE 370 (BIOL 340) General Ecology	3
BIOE 428 (BIOL 366) Freshwater Ecology	5
NRSM 365 (FOR 365) Foundation of Restoration Ecology	3
NRSM 385 (FOR 385) Watershed Hydrology	3
NRSM 422 (FOR 422) Natural Resource Policy and Administration	3
NRSM 444 (FOR 444) Ecological Restoration Capstone	5
NRSM 494 (FOR 494) Seminar in Ecological Restoration	1
NRSM 495 (FOR 445) Ecological Restoration Practicum	3-6
NRSM 489E (FOR 489E) Ethics Forestry and Conservation	3
Restoration/Aquatic Electives	9
Restoration/Social-Sci. Elective	3

Electives and General Education		14-17
<b>Rest/Aquatic Electives: At least nine credits must be completed from:</b>		
BIOO 340 (BIOL 308) Biology and Management of Fishes		4
ENSC 245N (FOR 210N) Soils		3
GEO 420 (GEOS 480) Hydrogeology		3
GEO 460 (GEOS 460) Process Geomorphology		4
GPHY 284 Introduction to GIS and Cartography		3
NRSM 455 (FOR 455) Riparian Ecology and Management		3
NRSM 485 (FOR 485) Watershed Management		3
WILD 491 Aquatic Macroinvertebrate Ecology		3
<b>Rest/ Social-Science Electives: At least three credits must be completed from:</b>		
ECNS 433 (ECON 440) Environmental Economics		3
FORS 320 (FOR 320) Forest Environmental Economics		3
NRSM 379 (FOR 379) Collaboration in Natural Resource Decisions		3
NRSM 426 Climate and Society		3
NRSM 475 (FOR 475) Environment and Development		3
<b>Bachelors in Wildland Restoration - Terrestrial Option</b>		
<b>First Year</b>		<b>Credits</b>
BIOB 160N (BIOL 110) Principles of Living Systems		4
BIOO 105N (BIOL 120) Introduction to Botany		3
CHMY 121N (CHEM 151N) Introduction to General Chemistry		3
CHMY 123N (CHEM 152N) Introduction to Organic and Biological Chemistry		3
COMX 111A (COMM 111A) Introduction to Public Speaking		3
M 162 (MATH 150) Calculus		4
NRSM 121S (RSCN 121S) Nature of Montana or NRSM 170 (RSCN 170) International Environmental Change or NRSM 180 (FOR/RECM/WBIO 180) Careers in Natural Resources		2-3
WRIT 101 (ENEX 101) College Writing I		3
Electives and General Education		6
<b>Second Year</b>		<b>Credits</b>
BIOB 260 (BIOL 221) Cellular and Molecular Biology		4
BIOB 272 (BIOL 223) Genetics and Evolution		4
ENSC 245N (FOR 210N) Soils		3
NRSM 265 (FOR 265) Elements of Ecological Restoration		3
FORS 201 (FOR 201) Forest Biometrics or STAT 216 (MATH 241) Statistics or WILD 240 (WBIO 240) Introduction to Biostatistics		3-4
WRIT 222 Technical Writing or WRIT 325 Science Writing (Honors)		2-3
Electives and General Education		9-10
<b>Third and Fourth Years</b>		<b>Credits</b>
BIOE 370 (BIOL 340) General Ecology		3
BIOE 448 Terrestrial Ecosystem Ecology or BIOE 448 (BIOL 448) Terrestrial Plant Ecology or FORS 330 (FOR 330) Forest Ecology or NRSM 462 (FOR 462) Range Ecology		3-4
BIOO 335 (BIOL 350) Rocky Mountain Flora		3
NRSM 365 (FOR 365) Restoration Ecology		3
NRSM 385 (RSCN 385) Watershed Hydrology		3
NRSM 422 (FOR 422) Natural Resource Policy and Administration		3
NRSM 444 (FOR 444) Ecological Restoration Capstone		5
NRSM 489E (FOR 489E) Ethics, Forestry and Conservation		3
NRSM 494 (FOR 494) Seminar in Ecological Restoration		1
NRSM 495 (FOR 445) Ecological Restoration Practicum		3-6
Electives and General Education		14-17
<b>Rest/Terrestrial Electives: At least nine credits must be completed from (students may not select an elective that is being used to fulfill any of the course requirements above):</b>		
BIOE 447 Ecosystem Ecology		3
BIOE 448 (BIOL 448) Terrestrial Plant Ecology		4
BIOO 320 (BIOL 316) General Botany		5
BIOO 433 (BIOL 444) Plant Physiology		3
BIOM 430 (MICB 423) Applied and Environmental Microbiology		3
FORS 330 (FOR 330) Forest Ecology		3
FORS 331 (FOR 331) Wildland Fuels Management		3
FORS 347 (FORS 347) Silviculture		3
GPHY 284 Intro to GIS and Cartography		3
NRSM 335 (FOR 335) Environmental Entomology		3
NRSM 360 (FOR 360) Rangeland Management		3
NRSM 363 (FOR 361) Range Forage Plants		3
NRSM 415 (FOR 415) Environmental Soil Science		3
NRSM 462 (FOR 462) Range Ecology		3
NRSM 485 (FOR 485) Watershed Management		3
WILD 470 (WBIO 470) Conservation of Wildlife Populations		3
<b>Rest/Social-Science Electives: At least three credits must be completed from:</b>		
		<b>Credits</b>

ECNS 433 (ECON 440) Environmental Economics	3
FORS 320 (FOR 320) Forest Environment Economics	3
NRSM 379 (FOR 379) Collaboration in Natural Resource Decisions	3
NRSM 426 Climate and Society	3
NRSM 475 (FOR 475) Environment and Development	3

#### Wildland Restoration Minor

To earn a minor in Wildland Restoration, students must fulfill the course requirements listed below.

<b>Minor in Wildland Restoration</b>	<b>Credits</b>
NRSM 265 (FOR 265) Elements of Ecological Restoration	3
NRSM 365 (FOR 365) Foundations of Restoration Ecology	3
BIOE 370 (BIOL 340) General Ecology or BIOE 428 (BIOL 366) Freshwater Ecology or FORS 330 (FOR 330) Forest Ecology or NRSM 462 (FOR 462) Range Ecology	3
FORS 201 (FOR 201) Forest Biometrics or STAT 216 (MATH 241) or WILD 240 (WBIO 240) Introduction to Biostatistics	3-4
ENSC 245N (FOR 210N) Soils	3
BIOO 335 (BIOL 350) Rocky Mountain Flora or NRSM 385 (FOR 385) Watershed Hydrology	3
<b>Rest/Natural Science Electives: At least three credits must be completed from the following: (Students may not select an elective that is being used to fulfill any of the course requirements above):</b>	<b>Credits</b>
BIOE 370 (BIOL 340) General Ecology	3
BIOE 428 (BIOL 366) Freshwater Ecology	5
BIOE 448 (BIOL 448) Terrestrial Plant Ecology	3
BIOO 335 (BIOL 350) Rocky Mountain Flora	3
BIOO 340 (BIOL 308) Biology and Management of Fishes	3
BIOO 433 (BIOL444) Plant Physiology	3
FORS 330 (FOR 330) Forest Ecology	3
FORS 331 (FOR 331) Wildland Fuel Management	3
FORS 347 (FOR 347) Multiple Resource Silviculture	3
GEO 420 (GEOS 480) Hydrogeology	3
GEO 460 (GEOS 460) Process Geomorphology	3
NRSM 335 (FOR 335) Environmental Entomology	3
NRSM 360 (FOR 360) Range Management	3
NRSM 385 (FOR 385) Watershed Hydrology	3
NRSM 415 (FOR 415) Environmental Soil Science	3
NRSM 455 (RSCN 455) Riparian Ecology and Management	3
NRSM 462 (FOR 462) Range Ecology	3
NRSM 485 (RSCN 485) Watershed Management	3
WILD 470 (WBIO 470) Conservation of Wildlife Populations	3
WILD 491 Aquatic Macroinvertebrate Ecology	3
<b>Rest/Social - Science Electives: At least three credits must be completed from the following (student may not select an elective that is also required for the student's major degree):</b>	<b>Credits</b>
ECSN 433 (ECON 440) Economics of the Environment	3
FORS 320 (FOR 320) Forest Environmental Economics	3
NRSM 379 (FOR 379) Collaboration in Natural Resource Decisions	3
NRSM 422 (FOR 422) Natural Resource Policy and Administration	3
NRSM 426 Climate and Society	3
NRSM 449E (FOR/RSCN 449) Climate Change Ethics and Policy	3
NSRM 475 (FOR 475) Environment and Development	3
NRSM 489E (FOR 489E) Ethics Forestry and Conservation	3
PTRM 482 (RECM 482) Wilderness & Protected Areas Management	3
Total	24-25

## College of Health Professions and Biomedical Sciences

David S. Forbes, Dean

Lori J. Morin, Assistant Dean for Student Affairs

The College of Health Professions and Biomedical Sciences offers the Bachelor of Arts in Social Work, the Doctor of Pharmacy (Pharm.D.) degree; the Master of Science degrees in Neuroscience, Pharmaceutical Sciences, Toxicology, and Medicinal Chemistry; the Master of Public Health degree, the Master of Social Work degree, the Doctor of Physical Therapy degree, and the Doctor of Philosophy (Ph.D.) degrees in Biomedical Sciences, Neuroscience, Toxicology, and Medicinal Chemistry.

The focus of these programs is to provide a composite of educational experiences that will produce a well-educated person and a highly trained, professional social worker, health care practitioner or scientist.

## Health Sciences

### Courses

Health science courses are concerned with fundamental issues in human health and disease and are, therefore, interdisciplinary in both scope and content. They have been designed not only for students anticipating careers in medicine, dentistry, nursing, public health, pharmacy, social work, medical technology, physical therapy, cytotechnology, and numerous other health care professions and services, but for all students interested in individual and community health, the clinical and paramedical arts, and the biomedical sciences. Health sciences courses are listed under two designations: 1) Allied Health: Health Sciences; 2) other disciplines.

### Health Sciences Courses

#### Allied Health: Health Sciences

- . AHHS 191 (HS 195) Special Topics
- . AHHS 201 (HS 201) Living Well: Health and Disability
- . AHHS 291 (HS 295) Special Topics
- . AHHS 320 (HS 320) American Indian Health Issues
- . AHHS 324 (HS 324) Medicinal Plants
- . AHHS 325 (HS 325) Introduction to Gerontology
- . AHHS 327 (HS 327) Montana Gerontology Society Meeting
- . AHHS 389 (HS 389) Recent Advances in Clinical Medicine
- . AHHS 390 (HS 390) Research
- . AHHS 391 (HS 395) Special Topics
- . AHHS 391 (HS 395) ST:Introduction to Dentistry
- . AHHS 394 (HS 394) Medical Preparation and Overview
- . AHHS 395 (HS 326) Geriatric Practicum
- . AHHS 420 (HS 420) Geriatric Health Issues
- . AHHS 430 (HS 430) Health Aspects of Aging
- . AHHS 440 (HS 440) Psychosocial Aspects of Illness and Disability in Older Persons
- . AHHS 490 (HS 490) Research
- . AHHS 491 (HS 495) Special Topics

#### Anthropology

- . ANTY 211 (ANTH 211) Anthropological Genetics
- . ANTY 227 (ANTH 201) Human Sexuality
- . ANTY 333 (ANTH 343) Culture and Population
- . ANTY 426 (ANTH 444) Culture, Health and Healing

#### Economics

- . ECNS 310 (ECON 320) Health Economics

#### Health and Human Performance

- . HEE 110 (HHP 184) Personal Health and Wellness
- . NUTR 221N (HHP 236N) Nutrition

#### Microbiology

- . BIOM 250N (BIOL 106N) Elementary Microbiology
- . BIOM 251 (BIOL/MICB 107) Elementary Microbiology Laboratory
- . BIOM 400 (MICB 302) Medical Microbiology

#### Native American Studies

- . NASX 388 (NAS 388) Native American Health and Healing

#### Social Work

- . SW 423 Addiction Studies
- . SW 455 Social Gerontology

**Pharmacy**

- . PHAR 110N Use and Abuse of Drugs
- . PHAR 145N Intro to Cancer Biology
- . PHAR 320 American Indian Health Issues
- . PHAR 324 Medicinal Plants

**Philosophy**

- . PHL 321E (PHIL 421) Philosophy and Biomedical Ethics

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Allied Health - Health Sciences (AHHS) - Course Descriptions**

191, 201, 291, 320, 324, 325, 327, 389, 390, 391, 394, 395, 420, 430, 440, 490, 491

**School of Physical Therapy and Rehabilitation Science**

- . Curriculum and Application Process
- . Special Degree Requirements
- . Courses
- . Faculty

**Reed Humphrey, Chair**

The professional program in physical therapy grants the Doctor of Physical Therapy (D.P.T.) degree. The program has an entry-level D.P.T. program, an entry-level D.P.T./M.B.A. program, and a post-entry level transitional D.P.T. curriculum leading to the D.P.T. degree. The following section describes the profession and the pre-professional requirements and application procedures. This information also is available on the program website at [www.health.umt.edu/schools/pt](http://www.health.umt.edu/schools/pt).

**The Profession**

Physical Therapy is a health care profession concerned with the habilitation and rehabilitation of individuals having limitations resulting from pathological, surgical, or traumatic conditions. The profession is also concerned with health, wellness and prevention of disability in an effort to promote maximal use of an individual's capacities and reduce their risk of illness. Physical therapists are trained to evaluate neurological, musculoskeletal, cardiovascular, respiratory, and integumentary disorders. Exercise and physical agents, such as heat, cold, light, electricity, and massage are used to promote healing, relieve pain, maintain or restore strength, and improve joint range of motion and functional capabilities. Physical therapists play key roles in: 1) the physical therapy diagnosis and treatment of musculoskeletal injuries, 2) wellness and injury prevention, 3) rehabilitating injured workers to return to their jobs, 4) rehabilitating senior citizens after debilitating disease to enable them to remain independent, 5) helping handicapped children to live within the least restrictive environment, 6) preventing and treating sports-related injuries, and 7) conducting research in the basic and clinical sciences. Knowledge of the psychological and social ramifications of disability affecting the individual and his or her family is an integral part of physical therapy intervention.

Physical therapy is practiced in diverse settings, including hospitals, clinics, skilled nursing facilities, sports medicine programs, public schools, and private practices. Legislation in Montana permits direct public access to physical therapists for evaluation and treatment without a physician referral. Even so, physical therapists remain committed to functioning as an integral member of the health care team.

The physical therapy educational program at The University of Montana seeks to prepare physical therapists who have a broad base of skills upon graduation, and who will be able to implement physical therapy services in many settings, especially rural environments. Rural settings require a physical therapist to serve not only as a provider of

direct patient care, but also to fulfill the roles of administrator, supervisor, teacher, consultant, and researcher. Students successfully completing the professional program meet the competencies for physical therapy as determined by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, receive a Doctor of Physical Therapy degree, and are prepared for state licensure.

The Physical Therapy Program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association through 2018.

#### **High School Preparation:**

Specific high school courses are not required but a background is recommended in mathematics, chemistry, biology, physics, English, and communication skills.

#### **Pre-Professional Physical Therapy Curriculum and Application Process**

Students wishing to apply to the professional physical therapy program at The University of Montana-Missoula may select any major for their undergraduate degree. While pre-physical therapy is not a degree granting major at the University, prospective applicants should list pre-professional physical therapy (PPPT) as their second major. This will allow them also to receive advising from the School of Physical Therapy and Rehabilitation Science in order to assure adequate preparation for the professional program. In addition to completing a baccalaureate degree, applicants must take the following prerequisite courses and meet the additional application requirements listed. All prerequisite courses must be taken for a traditional letter grade and must be completed with a grade of "C" (2.00) or better.

#### **Prerequisite Courses and Credits**

**Human Anatomy and Physiology:** minimum of two semesters or two to three quarters of human anatomy and physiology. This course work must be completed in a Biology, Anatomy and/or Physiology department. A full sequence must be completed of two semesters or two to three quarters, depending upon what is offered by the institution. A comparative vertebrate anatomy and an animal physiology course may be substituted for human anatomy and physiology.

**Chemistry:** minimum of two semesters or two quarters of chemistry with laboratory. A full sequence must be completed of two semesters or two to three quarters, depending upon what is offered by the institution.

**Physics:** minimum of two semesters or two quarters of physics with laboratory. A full sequence must be completed of two semesters or two to three quarters, depending upon what is offered by the institution.

**Statistics:** minimum of one semester or quarter of statistics course work.

**Social Sciences:** minimum of two semesters or three quarters of social/behavioral science classes. These classes may include courses offered by Psychology, Educational Psychology, Sociology, Social Work, Cultural Geography and Anthropology departments.

Certification in adult, child, and infant CPR is assumed.

Computer literacy is assumed. You should be able to utilize email communication, word processing, statistical and spreadsheet programs and be able to complete searches on the Web.

#### **Suggested Prerequisite Courses at The University of Montana-Missoula**

BIOH 365, 370 (BIOL 312, 313) Human Anatomy and Physiology I, II for Health Professionals or BIOH 201N, 211N (SCN 201, 202) Human Anatomy and Physiology I, II	8
CHMY 121N, 123N, 124N (CHEM 151N, 152N, 154N) Intro to General Chemistry and Laboratory, Intro to Organic & Biochemistry and Laboratory	8
PHSX 205N/206N, 207N/208N (PHYS 111N/113N, 112N/114N) College Physics I, II and Laboratory	10
PSYX 100S (PSYC 100S) Introduction to Psychology or SOCI 101S (SOC 110) Introduction to Sociology or ANTH 101H Introduction to Anthropology or PSYX 340S (PSYC 330S) Abnormal Psychology or PSYX 230S (PSYC 240S) Developmental Psychology	7
STAT 216 (MATH 241) Introduction to Statistics or PSYX 222 (PSYC 240S) Psychological Statistics or SOCI 202 (SOC 202) Social Statistics	



or STAT 341 (MATH 341) Intro to Probability and Stat or STAT 421 (MATH 441) Mathematical Statistics or STAT 422 (MATH 442) Advanced Mathematical Statistics, or STAT 451 (MATH 444) Statistical Methods I or STAT 452 (MATH 445) Statistical Methods II, or FOR 201, or HHP 486

#### **Additional Requirements for Application**

Because the professional program is sequential, students must enter the program in the autumn semester of the first professional year.

Online application and information about admissions policies for the professional program are available from the School of Physical Therapy and Rehabilitation Science website <http://physicaltherapy.health.umt.edu/>. The online applications are typically available beginning in July for each application cycle. Application fees are required with one going to PTCAS and another going to the School of Physical Therapy and Rehabilitation Science. Questions about admission should be addressed to [physical.therapy@umontana.edu](mailto:physical.therapy@umontana.edu).

The application documentation must be submitted online by October 15 (PTCAS application and School Supplemental application) and the supporting documents must be forwarded directly to the Chair, Student Selection Committee, School of Physical Therapy and Rehabilitation Science, arriving no later than October 15, preceding the autumn semester of the year for which admission is requested. The Graduate Record Exam (GRE) must be completed and the scores sent to The University of Montana. (Institution code 4489) Seven of the nine prerequisite courses must be completed at the time of application (October 15), including at least one course from both the chemistry and physics class sequences.

To be considered for admission, an applicant must have obtained a cumulative grade average of at least 3.0 (on a four-point scale) in all college courses for which the applicant has registered, as well as a minimum of 3.0 in the required prerequisite course work. Some preference will be given to Montana residents as well as students from states with no public physical therapy school. In addition to meeting the minimum grade point average (3.0 for both cumulative and prerequisite GPA) it may be useful for applicants to appreciate that GRE scores below the following thresholds are unlikely to result in admission to our program:

- . GRE Verbal Reasoning score of 146 (formerly 400)
- . GRE Quantitative Reasoning score of 146 (formerly 560)
- . Analytical Writing score of 3.5

To qualify as a resident applicant, the student must be a Montana resident, or be in the process of establishing residency in Montana.

In addition to these requirements, applicants must demonstrate an appreciation and knowledge of the practical duties and responsibilities of the physical therapist through direct exposure in a variety of clinical settings (a minimum of 80 hours of work or observation under the direct supervision of a physical therapist before application). At least 3 different clinical settings are required in the 80 hours of observation - outpatient, inpatient acute care, rehab/sub-acute rehab, skilled nursing/extended care, school/pediatrics, or home health. Documentation of these hours is included in the PTCAS application. These observation hours must be completed before application submission. Applicants are expected to participate in activities beyond their academic pursuits; such activities should include employment, volunteer activities (school, sport, community, or church) and employment/volunteer activities interacting with people with disabilities.

Application documentation includes three letters of recommendation, one of which must be from a licensed physical therapist. These letters will be submitted electronically through the PTCAS application.

After completed applications have been received, the Selection Committee will screen the applications based on grade point average in prerequisite courses, overall grade point average, GRE scores, evidence of leadership, community service, and letters of recommendation. Based upon the results of this screening, only those applicants who appear best qualified will be invited for a personal interview. Although an invitation to appear for interview does not assure the applicant a place in the class, the final selection will be made from those interviewed. All applicants will

be notified of their status.

#### Professional Physical Therapy Program

The professional entry-level D.P.T. program is 33 months in length. Enrollment is limited to 34 students in each class. All students pay first-level graduate tuition and fees plus a tuition surcharge each Autumn and Spring semester. The students will also pay first-level tuition and fees for two summer sessions.

#### Joint MBA/DPT Program

Students who wish to participate in this joint dual degree program must satisfy the normal admission requirements for both The School of Physical Therapy and Rehabilitation Science's entry level DPT program and The School of Business Administration's MBA program. Students cannot enter the joint program until they have been accepted separately by both schools. If accepted by both programs, permission to participate in the joint program must be obtained from both the Chair of the DPT program and the Director of the MBA program. Students completing this dual degree program will receive two separate degrees, the DPT and the MBA. Requirements consist of competing 32 credits for the MBA including 8 transferred in from the School of Physical Therapy and Rehabilitation Science and 118 total credits for the DPT including 8 transferred from the School of Business Administration. Students will work with faculty advisors from both programs to determine an appropriate curricular schedule.

#### Special Degree Requirements

Once admitted into the professional entry-level Physical Therapy Program, all students must achieve a C grade or higher (or a CR, in credit/no credit) in all required courses in the physical therapy curriculum. Because courses in the curriculum are sequential, a student who fails to achieve a C grade (or a CR, in credit/noncredit courses) in any course may not be allowed to continue in the next semester of the professional program. The student must retake the course at the next offering. Students must maintain a minimum 2.50 grade average while in the professional entry-level D.P.T. program. Students who do not maintain this average will be on academic probation and must achieve the 2.50 grade average in order to graduate. Students who fail to progress in the expected manner for two consecutive years will be dismissed from the Physical Therapy Program subject to review by the Academic Requirements Committee and the Dean of the College of Health Professions and Biomedical Sciences. Students also must comply with all School academic and professional conduct policies as outlined in the Physical Therapy Program Student Handbook. All students enrolled in the program are expected to maintain a full-time academic course load (minimum of 12 semester credits) during each semester of the program.

#### Professional Physical Therapy Curriculum

	<b>First Professional Year</b>	<b>A</b>	<b>S</b>
PT 503 Physical Therapy and Health Care System	4	-	
PT 510 Applied Clinical Anatomy	5	-	
PT 516 Movement System Exam and Evaluation	5	-	
PT 519 Musculoskeletal Management I	-	4	
PT 520 Development Through the Life Span	-	2	
PT 523 Clinical Medicine I	1	-	
PT 524 Clinical Medicine II	-	1	
PT 526 Foundational Skills and Interventions	4	-	
PT 527 Electrophysiological Testing and Interventions	-	2	
PT 529 Biomechanics	4	-	
PT 530 Clinically Applied Exercise Physiology	-	4	
PT 536 Neurosciences for the Health Professions	-	5	
PT 560 Clinical Reasoning I	-	1	
PT 582 Clinical Experience I	-	1	
Total		22	20
	<b>Summer Session</b>	<b>Credits</b>	
PT 587 Clinical Internship I	4		
	<b>Second Professional Year</b>	<b>A</b>	<b>S</b>
PT 525 Clinical Medicine III: Pathophysiology & Pharmacology for Physical Therapists	2	-	
PT 561 Research in Physical Therapy	2	-	
PT 563 Cardiopulmonary Physical Therapy	3	-	
PT 565 Physical Therapy for Children	2	-	

PT 567 Neurorehabilitation I	3 -
PT 568 Neurorehabilitation II	- 3
PT 569 Musculoskeletal Management II	5 -
PT 572 Practice and Administration	- 2
PT 573 Musculoskeletal Management III	- 4
PT 576 Clinical Reasoning II	- 1
PT 578 Physical Therapy for Select Populations	- 6
PT 588 Clinical Internship II	- 4
Total	17 20

<b>Summer Session Credits</b>	
PT 589 Clinical Internship III 5	
<b>Third Professional Year</b>	
A	S
PT 626 Clinical Medicine IV	3 -
PT 627 Prevention, Wellness, and Education	2 -
PT 672 Research in Physical Therapy II	2 -
PT 570 Psychology of Illness and Disability	2 -
PT 676 Reasoning III	3 -
PT 679 Current Trends & Scholarly Activities in Physical Therapy 1-6	-
PT 680 Clinical Internship IV	- 12
Total	18 12

Six credits of professional elective course work are required for the D.P.T. These may be satisfied by PT 672 or 679 sections or courses outside the school. Only 6 credits may be independent study.

Total credits required for graduation: 118

#### **Transitional D.P.T. Curriculum**

The mission of the transitional Doctor of Physical Therapy (tDPT) curriculum is to provide an affordable, practical, and career-enhancing plan of study that allows licensed physical therapists to transition their current entry-level professional degree to the Doctor of Physical Therapy degree. The program of study offers licensed physical therapists with an academic degree in Physical Therapy the opportunity to earn the Doctor of Physical Therapy (DPT) degree. The focus of the program is to bridge the gap between current DPT and prior degree entry-level expectations. The program is delivered in a distance-education format, although students are required to attend a weekend during the course of study for a two-day seminar in concepts of professionalism in an autonomous profession and other requirements as identified in the program of study.

#### **Admission Requirements**

Applicants must:

- . Provide evidence of being currently credentialed, licensed, registered, or equivalent to practice physical therapy;
- . Complete an admission application supplied through the School of Physical Therapy and Rehabilitation Science at The University of Montana;
- . For those in the BS tDPT curricular track, provision of official transcripts and evidence of an entry-level degree in physical therapy from an accredited institution;
- . For those in the MS tDPT curricular track provision of official transcripts of an entry-level or advanced master's degree (MS or higher) from an accredited institution in physical therapy;
- . In addition to numbers 1-4, for students graduating from a foreign institution, certification of entry-level equivalence through an approved credentialing agency, such as Silvergate (<http://www.silvergateevaluations.com/>) International Consultants of Delaware (<http://www.icdeval.com/>) the Foreign Credentialing Commission on Physical Therapy ([www.http://www.fccpt.org](http://www.fccpt.org)) or World Education Services (<http://www.wes.org>) is required;
- . Non-US licensed applicants whose native language is not English must submit qualifying TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System) or MELAB (Michigan English Language Assessment Battery) scores to be admitted into the tDPT curriculum. If the TOEFL score is below 580 (paper-based test), 237 (computer-based test) or 92 (internet-based test), the IELTS score is below 6.5 or the MELAB score is below 82, applicants are encouraged to complete English as a Second Language course(s) and

- resubmit TOEFL, IELTS or MELAB scores before they apply to the program;
- Agree to modifications in the program of study if requested, upon review of the application.

**Important note for non-US licensed foreign applicants:** Granting of the DPT degree awarded by the University of Montana is considered a post-professional academic degree. Granting of the tDPT degree upon successful completion of the tDPT curriculum by the University of Montana **does not convey a license to practice, nor eligibility to take the licensure exam** in the United States, which is required by law to practice in the United States. To better understand regulations to practice in the United States, visit the Federation of State Boards of Physical Therapy (<http://www.fsbpt.org>).

#### Minimum Grade and Academic Progression Requirements

Students must receive a minimum grade of C in all tDPT courses. Students who receive a grade of C- or lower must repeat the course to achieve a grade of B or better to pass the course. Repetition of courses will result in additional tuition charges. Students must achieve a grade point average of 2.5 or greater in the prescribed program of study to graduate from the tDPT curriculum. Only the grades within the tDPT curriculum will be included in the calculation of the GPA. Failure to maintain a 2.5 GPA for two semesters will result in dismissal from the tDPT curriculum.

#### Degree Requirements

For candidates holding an entry-level master's degree, successful completion of a 20-credit core curriculum that includes:

##### Semester One

- PT 652 Pharmacology in Rehabilitation (2 cr.)
- PT 654 Clinical Decision Making: Guide to PT Practice (1cr)

##### Semester Two

- PT 653 Legal and Ethical Issues for PTs (1 cr.)
- PT 655 Business and Marketing (2 cr.)
- PT 657 Professionalism: The Doctoring Profession (2 cr.)\*

##### Semester Three

- PT 656 Coding and Reimbursement (1 cr.)
- PT 651 Medical Imaging and Rehabilitation (2 cr.)
- PT 657 Professionalism: The Doctoring Profession (2 cr.)\*

##### Semester Four

- PT 650 Screening for Medical Disorders (2 cr.)
- PT 658 Critical Assessment and Application of Best Evidence(3 cr.)

##### Semester Five

- PT 659 Capstone Project (4 cr.)

For bachelor's candidates, semesters 1-4 are the same as above; semesters 5-7 are as follows:

##### Semester Five

- PT 660 Management of Patients with Musculoskeletal Disorders (2 cr.)
- PT 661 Management of Patients with Cardiovascular and Pulmonary Disorders (2 cr.)

##### Semester Six

- PT 662 Management of Patients with Neurological Disorders (2 cr.)
- PT 663 Management of Patients with Integumentary Disorders (2 cr.)
- PT 664 Wellness and Health Promotion (2 cr.)

**Semester Seven****PT 659 Capstone Project (4 cr.)**

Candidates unable to complete PT 659 by the course completion date will receive an incomplete grade. The incomplete must be resolved within one month of receipt; otherwise a failing grade will be issued and the course must be repeated with an additional tuition charge.

PT 657 Professionalism: The Doctoring Profession might be taken in the 2<sup>nd</sup> or 3<sup>rd</sup> semester depending on enrollment date.

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Physical Therapy (P T) - Course Descriptions**

503, 510, 516, 519, 520, 525, 526, 527, 529, 530, 536, 560, 561, 562, 563, 565, 567, 568, 569, 570, 572, 573, 576, 577, 578, 582, 587, 588, 589, 594, 595, 626, 627, 628, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 671, 672, 676, 679, 680, 690, 691, 692, 694, 699

**Faculty****Professors**

Jennifer Bell, Sc.D., Texas Tech University Health Sciences Center, 2013; M.P.T., University of Texas Southwestern Medical Center, 2006

Reed Humphrey, Ph.D., University of Pittsburgh, 1986; P.T., Virginia Commonwealth University, 1994 (Chair)

Beth Ikeda, M.S., D.P.T., Massachusetts General Hospital Institute of Health Professions, 1989, 2004, P.T., Mayo School of Health Related Science, 1981

Charles Leonard, Ph.D., Medical College of Pennsylvania, 1985; P.T., Duke University, 1978

**Associate Professor**

James J. Laskin, Ph.D., University of Alberta, 2001; P.T., University of Saskatchewan, 1987

**Assistant Professors**

Anthony Kinney, D.P.T., Washington University, 2008; MBA Duke University, 2008; New York Medical College, MSPT, 2002

David L. Levison, M.H.S., Indianapolis Krannert School of Physical Therapy, 1996; P.T., University of Montana, 1986

Ryan Mizner, Ph.D., University of Delaware, 2005; P.T., University of Delaware, 2000

Alex Santos, Ph.D., Pennsylvania State University, 2008; P.T., State University of Londrina (BR), 1998

**Nora Staael Evert Physical Therapy & Rehabilitation Clinics****UM Sports & Orthopedics, Neurology & the New Directions Wellness Center**

Director: Susan Ostertag, D.P.T., Arizona School of Health Sciences, 2007, B.S., P.T., University of Montana, 1993

Brenda Mahlum, D.P.T., Rocky Mountain University of Health Professions, 2006; P.T., University of North Carolina, 1984

Mary Coar, D.P.T. The University of Montana, 2011; B.S., P.T., CSU-Northridge, 1993

Jaclyn Carson, D.P.T., The University of Montana, 2010, B.S. The University of Montana, 2005

Molly Blair, B.S., University of Montana, 2002

## Pre-Medical Sciences

**Mark A. Pershouse (Director and Associate Professor)**

Health care continues to be one of the most rapidly expanding areas of our society. Careers in the health professions have expanded, both in numbers and in the variety of opportunities. The rewards of a career in health care include excellent salaries, stability of employment, geographic mobility, and the opportunity to help other people. The Pre-Medical Sciences Program is an advising program that helps students become well-informed, well-prepared applicants to programs in allopathic medicine, osteopathic medicine, chiropractic medicine, dentistry, naturopathic medicine, optometry, physician assistant studies, podiatry and veterinary medicine.

Pre-Medical Sciences is not a major at the University of Montana. The Pre-Medical coursework will help students to gain admission to a professional school or program while completing a degree in a field of study. Students may select any major as a field of study, but specific pre-professional courses must be completed. When selecting a major, remember that a science major is not required for admissions into professional schools. It is more important to perform well in your chosen major. Professional schools are most concerned with the overall quality, scope and difficulty of undergraduate work rather than the major.

Pre-professional courses are designed to provide a strong foundation in the sciences, highly developed communication skills, and a solid background in the social sciences and humanities. Curriculum guides outlining minimal course requirements established by professional schools are available from the Pre-medical Sciences office and from the Pre-Medical Sciences website (<http://umt.edu/premed>). Because many majors within the sciences, social sciences and humanities can provide strong preparation for medical school, the Pre-Medical Sciences Advising Program gives students the opportunity to interact with advisors from diverse disciplines in addition to their advisor for their major.

The minimal requirements for professional school should be completed by the end of the third year of study or prior to taking the admission test required by professional schools. Since specific subject requirements vary among institutions, students should discuss their academic plans with their Pre-Medical Sciences advisor.

Admission to a professional school is very competitive. Students must maintain a high grade-point average in college if they expect to be admitted. All required courses must be taken for letter grades. In addition, the applicant must score well on the appropriate professional admissions test. These tests are designed to measure basic academic ability in the natural sciences, reading ability and problem solving skills. These examinations are usually taken during the third year of study.

Besides academic accomplishments and admission exam scores, acceptance by a professional school is also dependent upon letters of recommendation, volunteer experience, job shadowing, and personal interviews conducted by the professional school. It is important that students consult with a Pre-Medical Sciences advisor and with an academic advisor in their major each year to make sure that they can satisfy the necessary requirements for graduation within the time available. The Pre-Medical Sciences Director will also discuss procedures, advise and assist the student during the process of applying to a professional school.

**High School Preparation:** High school students contemplating a career in the health professions should have three to four years of mathematics, courses in chemistry and physics and a solid background in literature and social science.

## School of Public and Community Health Sciences

- . Special Degree Requirements
- . Courses

## Faculty

### Craig Molgaard, Professor and Chair

Accredited by the Council on Education for Public Health (CEPH) in 2012, the School of Public and Community Health Sciences is a multi-disciplinary program that offers the Master of Public Health (M.P.H.) degree and a graduate Certificate of Public Health (C.P.H.). The program is designed to prepare public health practitioners who will use global insight to improve the health of the people of Montana and other rural areas. Predominantly on-line, web-based instruction allows both traditional students and working professionals to pursue a degree or certificate.

### Special Degree Requirements

For the M.P.H. degree, all students must successfully complete 42 graduate credits, including 36 required core credits and 6 elective credits. The following core courses are required:

- . PUBH 510 Introduction to Epidemiology or PUBH 511 History and Theory of Epidemiology
- . PUBH 520 Fundamentals of Biostatistics
- . PUBH 530 Administration and Management in the U.S. Health Care System
- . PUBH 535 Health Policy
- . PUBH 540 Social and Behavioral Sciences in Public Health
- . PUBH 550 Program Evaluation and Research Methods
- . PUBH 560 Environmental and Rural Health
- . PUBH 570 Ethical Issues in Public Health
- . PUBH 580 Rural Health Issues in a Global Context
- . PUBH 591 Practicum
- . PUBH 593 Professional Portfolio
- . PUBH 599 Professional Paper

M.P.H. students may take 6 or more elective credits of courses offered from the School of Public and Community Health Sciences or from other departments in order to create a plan of study that tailors the learning experience to the needs of the student. PUBH elective courses include:

- . PUBH 511 History and Theory of Epidemiology
- . PUBH 512 Neuroepidemiology
- . PUBH 515 Public Health Genetics
- . PUBH 521 Leadership in Public Health
- . PUBH 525 Native American Public Health
- . PUBH 595 Special Topics
- . PUBH 596 Independent Study
- . PUBH 597 Research

For the Certificate of Public Health, students must complete any 12 pre-approved credits from the above list of core courses. Approval of a specific 12 credit program is part of the Certificate of Public Health admission process.

### Courses

#### Public Health (PUBH) - Course Descriptions

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

510, 511, 512, 515, 520, 521, 525, 530, 535, 540, 550, 560, 570, 580, 591, 593, 595, 596, 597, 599

## Faculty

**Public Health Core Faculty**

Annjeanette Belcourt-Dittloff, Ph.D., The University of Montana, 2006 (Pharmacy Practice and School of Public and Community Health Sciences)

Amanda L. Golbeck, Ph.D., University of California at Berkeley, 1983 (Biostatistics); M.A., University of California at Berkeley, 1979 (Statistics); M.A., University of California at Berkeley, 1977 (Anthropology)

Kari Harris, Ph.D., The University of Kansas, 1998 (Behavioral Psychology); M.P.H., The University of Kansas School of Medicine, 1997; M.S., Central Washington University, 1992 (Organizational Development)

Craig Molgaard, Ph.D., University of California at Berkeley, 1979 (Anthropology/Health and Medical Sciences); M.P.H. University of California at Berkeley, 1982 (Epidemiology); M.A., University of California at Berkeley, 1976 (Anthropology) (Chair)

Tony Ward, Ph.D., The University of Montana, 2001 (Biomedical and Pharmaceutical Sciences and School of Public and Community Health Sciences)

**MPH Program Faculty****Professors**

Jean T. Carter, Ph.D., The University of Arizona, 1997; Pharm.D., The University of Arizona, 1993 (Pharmacy Practice)

Janet L. Finn, Ph.D., University of Michigan, 1995 (Social Work and Anthropology)

Peter Koehn, Ph.D., University of Colorado, 1973 (Political Science)

Willard O. Granath, Ph.D., Wake Forest University, 1982 (Biological Sciences)

Jan LaBonty, Ph.D., University of Nebraska, 1987; M.Ed., Northern Montana College, 1983 (Curriculum and Instruction)

Kimber Haddix McKay, Ph.D., University of California at Davis, 1998 (Anthropology)

Gilbert Quintero, Ph.D., University of Arizona, 1998 (Anthropology)

Robin Saha, Ph.D., University of Michigan, 2002 (Environmental Studies)

Tom Seekins, Ph.D. University of Kansas, 1983 (Department of Psychology and the Rural Institute)

K. Ann Sondag, Ph.D., Southern Illinois, Carbondale, 1988 (Health and Human Performance)

Kay Unger, Ph.D., Johns Hopkins University, 1974 ( Department of Economics)

**Associate Professors**

Duncan Campbell, Ph.D., Washington State University, 2003 (Psychology)

Bryan Cochran, Ph.D., University of Washington, 2003 (Psychology)

Curtis Noonan, Ph.D., Colorado State University, 2000 (Biomedical and Pharmaceutical Sciences and Pharmacy Practice)

Elizabeth Putnam, Ph.D., University of Texas-Houston, 1989 (Biomedical and Pharmaceutical Sciences)

**Assistant Professors**

Ranjan Shrestha, Ph.D., Ohio State University, 2007 (Department of Economics)



**Adjunct Faculty**

Kathryn Fox, M.P.H., University of Montana, 2013, J.D. Indiana University School of Law, 2006

Julie Stevens, M.P.H., University of Montana, 2012

**Research Associate Professors**

Ann Cook, Ph.D., The University of Montana, 2001 (Research, Psychology)

Kathleen Humphries, Ph.D., The University of California at Davis, 1995 (Rural Institute)

Meg Ann Traci, Ph.D., The University of Montana, 2000 (Rural Institute)

Lawrence L. White, M.H.A., St. Louis University, 1970 (Western Montana Area Health Education Center and School of Public and Community Health Sciences)

**Project and Research Directors**

Rosemary Hughes, Ph.D., University of Houston, 1989 (Rural Institute)

Craig H. Ravesloot, Ph.D., University of Montana, 1995 (Rural Institute)

**School of Public and Community Health Sciences Faculty Affiliates**

Elizabeth Ciemins, Ph.D., University of California at Berkeley, 2003; M.P.H., University of California at Los Angeles, 1994 (Research Director, Center for Clinical Translation Research, Billings Clinic)

Marcia Ciol, Ph.D., University of Washington – Seattle, 1991; M.S. University of Washington – Seattle, 1987; M.S. Universidade Estadual de Campinas – Brazil, 1982; (Research Associate Professor, University of Washington – Seattle, Department of Rehabilitation Medicine)

Leslie Deck, M.P.A., The University of Montana, 2009; C.H.E.S., National Commission for Health Education Credentialing, 2004 (Program Coordinator, Tobacco Use Prevention, Flathead City-County Health Department, Health Promotion Specialist, Summit Medical Fitness Center)

John Felton, M.P.H., The University of Montana, 2010, M.B.A., University of Cincinnati, (Executive Vice President - Operations, RiverStone Health, Billings)

Lawrence Edward Frisch, M.D., Harvard Medical School, 1971; M.P.H. University of Washington, 1995 (Associate Professor, Northeastern Ohio University College of Medicine and Pharmacy; Executive Medical Director for Patient Safety and Quality, Vancouver Island Health Authority, British Columbia, Canada)

Suzanne Reid Hawley, Ph.D., Loma Linda University, 2002; M.P.H., Loma Linda University, 1999 (Professor and Chair, Wichita State University, Department of Public Health Sciences) and MPH Program Director, University of Kansas School of Medicine-Wichita, Department of Preventive Medicine and Public Health

Steven D. Helgerson, M.D., University of Washington School of Medicine, 1973; M.P.H., University of Washington School of Public Health and Community Medicine (State Medical Officer, Montana Department of Health and Human Services)

Billie Jo Kipp, Ph.D., University of Montana, 2005; M.A., University of Montana, 2000; (President, Blackfeet Community College)

Cindi Laukes, M.A., University of Iowa, 1990 (Clinical Research Director, Montana Neuroscience Institute, Clinical Research Manager, Montana Cancer Institute)

Joanne Oreskovich, Ph.D., University of Minnesota, 2001 (Director/Epidemiologist, Behavioral Risk Factor Surveillance System, Montana D.P.H.H.S.)

Lolem Ngong, M.P.H., University of Kansas School of Medicine-Wichita, 2001 (PEPFAR Country Coordinator for the Democratic Republic of Congo, USAID)

Greg Oliver, M.S., The University of Montana, 1989 (Director Health Promotion Division, Missoula City-County Health Department)

Angelia Paschal, Ph.D., Kent State University, 2003; M.Ed., University of Mississippi, 1992 (Associate Professor, University of Alabama at Tuscaloosa, Department of Health Science, University of Kansas School of Medicine-Wichita, Department of Preventive Medicine and Public Health)

Tom G. Schwann, Ph.D., University of California at Berkeley, 1983 (Chief and Senior Investigator, Laboratory of Zoonotic Pathogens, Rocky Mountain Laboratories, National Institute of Allergies and Infectious Diseases, National Institutes of Health.)

## Skaggs School of Pharmacy

- . Admission
- . Pre-Pharmacy Program
- . Special Degree Requirements
- . Courses
- . Faculty

Pharmacy is the study of the biological, chemical, and physical characteristics of medicinal substances and the utilization of these substances in the prevention, treatment, and control of illness and disease. It also encompasses a study of the systems of delivering health care and the function of the professional pharmacist within these systems.

The Skaggs School of Pharmacy was established in 1907 at Montana State College and was transferred to the University in 1913. The pharmacy program consists of two departments, Pharmacy Practice and Biomedical and Pharmaceutical Sciences.

The Skaggs School of Pharmacy is a member of the American Association of Colleges of Pharmacy. The entry-level doctor of pharmacy program is fully accredited by the Accreditation Council for Pharmacy Education, 135 S. LaSalle Street, Suite 4100, Chicago IL 60603-4810, telephone (312) 664-3575, (800) 533-3606; FAX (312) 664-4652; <http://www.acpe-accredit.org/>

The curriculum offered by the Skaggs School of Pharmacy consists of a six year program leading to the entry-level Pharm.D. degree. The first two years, or pre-professional portion of the curriculum, are spent in studies of the basic biological and physical sciences, and in course work necessary to satisfy the University general education requirements. During the first three years of the professional program, students devote their time to the study of the biomedical and pharmaceutical sciences and pharmacy practice. Areas of study include biochemistry, microbiology, medicinal chemistry, pharmaceuticals, pharmacology, social and administrative pharmacy, and therapeutics. The final professional year is entirely experiential.

A program of selected electives allows the student to obtain further educational experience in specialized areas of pharmaceutical knowledge. Students in the professional program may choose elective courses in specific areas of interest which include community pharmacy practice, management, research and teaching, or hospital and institutional pharmacy practice. All students must confer with assigned advisors prior to each registration period and receive approval of proposed courses.

In addition to their formal educational program, students, to become registered pharmacists, must complete practical experience or internship under the direction of a registered pharmacist and pass an examination administered by the State Board of Pharmacy.

Career opportunities exist in the fields of community pharmacy, institutional pharmacy, federal or state government service, public health agencies, and with the pharmaceutical industry in sales positions or in manufacturing. Those

with advanced degrees or residencies are in demand for research positions and in pharmaceutical education.

**High School Preparation:** In addition to the general University admission requirements, algebra, trigonometry, biology, chemistry, physics and a course in computers are recommended.

#### **Admission**

The general requirements for admission to the University are listed separately in this catalog.

#### **Pre-Pharmacy Program**

The pre-pharmacy curriculum, which requires a minimum of two years of full-time study, may be taken at any accredited college or university.

Students at The University of Montana-Missoula may enter the pre-pharmacy program during any semester. It is recommended that students considering pharmacy as a major declare a pre-pharmacy major as early as possible in order to receive appropriate advising. Upon designating pre-pharmacy as a major, students will be assigned an advisor within the pharmacy program.

#### **Professional Pharmacy Program**

Students must apply for admission to the professional program. Class size in the professional pharmacy program is restricted and admission to the program is competitive. The admission process is designed to admit the best overall class into professional study. Completed applications are evaluated by the Skaggs School of Pharmacy Admissions Committee. Acceptances are made by the pharmacy faculty and the dean based on the recommendations of the committee.

Since very few elective credits are available in the professional pharmacy curriculum, students will be expected to have completed all General Education requirements except for the upper-division writing and ethics requirements prior to entering the professional curriculum. Students must complete all General Education requirements before entering pharmacy practice experience rotations during the final year of the program. Applicants will be screened based on academic record (both overall and in the required pre-pharmacy course work) and Pharmacy College Admission Test scores (refer to [www.pcatweb.info](http://www.pcatweb.info) for test dates). To be eligible for admission, students must have a minimum grade point average of 2.5 on a 4 point scale, both overall and in required pre-professional courses. Students must earn grades of at least a C (not C-) in all required pre-pharmacy courses. For the past several years there have been more than three applicants for each opening, and the grade point average of the entering class has been about 3.5. In addition, applicants must present proof of having completed at least 60 hours of volunteer or paid service in a pharmacy, other health care, or social field, and an evaluation form filled out by someone involved with the applicant in such an experience. A personal interview is also required.

As a state supported institution, the Skaggs School of Pharmacy gives all applicants from the Montana University System equal consideration for admission into the professional pharmacy program. There is no restriction on admission of out-of-state students; however, Montana residents are given priority among students with equal qualifications. Students will be notified of their admission status in writing. In the past, students with only international coursework have not been admitted to the professional pharmacy program.

The curriculum of the professional pharmacy program is sequential. Therefore, students may enter the program in the autumn semester only. Application forms for admission to the professional curriculum may be obtained from the website of the College of Health Professions and Biomedical Sciences ([www.health.umt.edu](http://www.health.umt.edu)). Applications must be post marked by February 15th preceding the autumn semester of the year for which admission is requested.

An application fee must be submitted with the application. Admission for one academic year cannot be deferred to another academic year. Official transcripts of all academic courses taken must be forwarded directly to the Skaggs School of Pharmacy.

The professional pharmacy curriculum must be taken in residence at the University. Students transferring from other

accredited schools of pharmacy may be admitted with advanced standing, determined on the basis of credits accepted, provided they are in good academic standing. Transfer credit for required professional courses taken at other institutions is accepted only for those courses which are deemed equivalent and in which a letter grade of C (2.00) or better is obtained.

#### **Academic Progression**

The general University academic standing requirements are listed separately in this catalog.

Students in the professional pharmacy curriculum must maintain cumulative, professional, and pharmacy grade point averages of 2.0 or higher. The professional grade point average consists of all required course work in the professional curriculum. The pharmacy grade point average consists of all courses with a pharmacy (PHAR) prefix.

Students enrolled in the professional pharmacy program must maintain satisfactory academic progress. Students must earn grades of at least C- in all required courses in the professional pharmacy curriculum. Students in the professional program who have a pharmacy or professional grade point average of less than 2.0 or who receive a grade of D or F in any required course in the professional curriculum will be placed on academic probation. A student must petition to continue in the professional pharmacy program if he or she is on probation. A student will be dismissed from the professional pharmacy program if he or she is on probation for a total of three terms, not necessarily consecutive, subject to review by the dean. A student will be removed from probation when a grade point average of 2.0 has been achieved and all grades in required professional pharmacy courses are C- or better.

Students who have failed ten or more credits of required professional course work or who fail to progress in the expected manner for two consecutive years may be dismissed from the professional pharmacy program, subject to review by the Academic Standards Committee and the dean.

Students dismissed from the program for substandard performance will not be readmitted, except in cases where substantiation is made to the faculty, by written petition, that the substandard performance was the result of circumstances that no longer exist, or that the student has demonstrated the capability and desire to perform satisfactory work since his or her dismissal from the program.

Students leaving the program on their own volition are guaranteed readmission if they are in good academic standing and exit by interview with the assistant dean for student affairs. Those students leaving the program on their own volition and not in good standing must reapply for admission.

The professional pharmacy curriculum consists of an integrated sequence of required courses which is designed to be completed in four consecutive years. With appropriate justification, part-time study in the professional pharmacy program may be allowed. Students desiring to be enrolled in part-time study must make their request by petition to the Academic Standards Committee. Because the curriculum is revised periodically, students who take longer than the normal number of years to complete the professional program will be required to complete curricular changes applicable to the class in which they graduate. Because the Pharmacy program is academically intense, employment beyond the minimal, part-time work is not recommended.

#### **Special Degree Requirements**

Refer to graduation requirements listed previously in the catalog.

Degree candidates must:

1. Meet the general University requirements for graduation.
2. Earn a grade point average of 2.0 or higher in each of the following areas:
  1. all courses attempted at The University of Montana-Missoula (cumulative GPA).
  2. all courses which carry a pharmacy (PHAR) prefix (pharmacy GPA).
  3. all required courses in the professional pharmacy curriculum (professional GPA).
3. Required pharmacy course work must be completed with a grade of C- or better.

- Complete at least six full academic years, including pre-pharmacy instruction, and a minimum of eight semesters of professional instruction as a full-time student registered for a minimum of twelve credits per semester.
- Complete not less than 200 credits of course work.

#### Licensure in Montana

An applicant for licensure as a registered pharmacist in Montana must pass national examinations as required by the Montana State Board of Pharmacy. To qualify for the examinations, the applicant must be of good moral character and a graduate of an accredited school of pharmacy; however, an applicant will not receive a license until an internship is completed.

#### Internship Regulations

- The internship requirement for licensure as a registered pharmacist in Montana is regulated by the Montana State Board of Pharmacy. Students must be registered with the Board of Pharmacy as a pharmacy intern in order to accrue internship hours.
- Only those students who have completed the first year of the professional pharmacy curriculum may begin their internship.
- The internship requirement consists of 1,500 hours of experience in an approved pharmacy setting. The student also may acquire hours concurrently with school attendance in courses, clinical pharmacy programs, or demonstration projects which have been approved by the Board of Pharmacy.
- Many courses and programs currently offered by the School of Pharmacy are approved and applicable toward fulfilling the internship requirement.
- Students will receive credit for internship time and/or courses taken if such experience is certified by the preceptor and/or instructor and approved by the Board of Pharmacy.

#### Pre-Pharmacy Curriculum

The courses shown here must be completed before entering the professional pharmacy program. The sequence of courses is illustrative and, if proper prerequisites are satisfied, the student may alter the order in which the courses are taken.

In addition, applicants to the professional pharmacy program must present proof of having completed at least 60 hours of volunteer or paid service in a pharmacy, other health care, or social field, and one letter of evaluation from someone involved with the applicant in such an experience. The Pharmacy College Admission Test (PCAT) must be taken during the second pre-pharmacy year.

<b>Pre-Pharmacy First Year</b>	<b>A/S</b>	<b>Total Cr</b>
CHMY 141N, 143N (CHEM 161N, 162N) College Chemistry I, II	5/5	10
M 162 (MATH 150) Applied Calculus (prereq. M 151 (MATH 121) or appropriate placement score)	4	4
BIOH 112 (BIOL 112) Intro to Human Form and Function I	3/3	6
BIOH 113 (BIOL 113) Intro to Human Form and Function II		
WRIT 101 (ENEX 101) English Composition	3	3
<b>Pre-Pharmacy Second Year</b>		
BIOB 260 (BIOL 221) Cell/Molecular Bio	A/S	Total Cr
	4	4
CHMY 221, 222 (CHEM 221, 22) Organic Chemistry I, Organic Chemistry I Lab	3/2	5
CHMY 223 (CHEM 223) Organic Chemistry II	3	3
ECNS 201S (ECON 111S) Principles of Microeconomics	3	3
PHSX 205N/206N (PHYS 111N-113N) Fundamental of Physics I & Lab	4,1	5
STAT 216 (MATH 241) Statistics (other acceptable courses for the Statistics requirement include PSYX 222 or SOCI 202)	4	4
<b>Either Year, any semester- Required</b>		
	<b>A/S</b>	<b>Total Cr</b>
PSYX 100S (PSYC 100S) or SOCI 101S (SOC 110S) Intro to Psychology or Sociology	4 or 3	3 or 3
THTR 120A (DRAM 111A) Introduction to Acting I or COMM 111A Public Speaking	3	3
<b>Either year, any semester - Recommended courses to fulfill UM General Education requirements</b>		
	<b>A/S</b>	<b>Total Cr</b>
ANTY 103H (ANTH 101H) Anthropology & the Human Experience or NASX 105H (NAS 100H) Intro to Native American Studies	3	3
LIT 110L (ENLT 120) Intro to Lit or LIT 120L (ENLT 121) Poetry	3	3

\* \*Students must complete the University's General Education requirements. Due to the limitation of elective credits in the professional pharmacy curriculum, students are advised to complete the lower-division General Education

requirement during the pre-pharmacy curriculum.

### Professional Pharmacy Curriculum

Students must apply for admission to the professional program. For requirements see the section on Admission. Students enrolled in the professional pharmacy curriculum are assessed a supplemental fee. This fee does not apply to pre-pharmacy students. Refer to the fees section of this catalog for details. Students must demonstrate proficiency in pharmaceutical calculation by successfully completing a competency assessment prior to entering the second professional year. Students, except those exempt, must complete the University Upper-Division Writing Proficiency Assessment prior to entering the second professional year.

The Upper-Division Writing Requirement must be met by successfully completing PHAR 550 or an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog. See index.

<b>First Professional Year</b>		<b>A</b>	<b>S</b>
PHAR 381 (BMED 395) Pharmaceutical Biochemistry	4	-	
PHAR 328 (BMED 328) Antimicrobial Agents	-	3	
PHAR 331 (BMED 331) Pharmaceutics	-	4	
PHAR 341, 342 (BMED 341, 342) Physiological Systems I, II	4	4	
PHAR 361-362 (BMED 361-362) Pharmaceutical Sciences Lab	1	1	
BIOM 400 (MICB 302) Medical Microbiology	3	-	
PHAR 300 (PHAR 309) Introduction to Pharmacy Practice	3	-	
PHAR 310 Pharmacy Practice II	-	2	
PHAR 363 Pharmaceutical Care Lab I	-	1	
PHAR 371-372 Integrated Studies	1	1	
Total	16	16	
<b>Second Professional Year Autumn/Spring Intersession:</b>			
PHAR 480 Community Pharmacy Introductory Experience	-	3	
		<b>A</b>	<b>S</b>
PHAR 421 (BMED 421, 422) Medicinal Chemistry I, II	3	3	
PHAR 432 (BMED 432) Clinical Pharmacokinetics	3	-	
PHAR 443, 444 (BMED 443, 444) Pharmacology and Toxicology	4	4	
PHAR 412 Pharmacy Practice III--Social and Behavioral Pharmacy	-	2	
PHAR 451, 452 Therapeutics I, II	3	3	
PHAR 460 Pharmaceutical Care Lab II	1	-	
PHAR 463 Pharmaceutical Care Lab III	-	1	
PHAR 471, 472 Integrated Studies	1	1	
Electives	1	2	
Total	16	16	
<b>Third Professional Year Autumn/Spring Intersession:</b>			
PHAR 481 Hospital Pharmacy Introductory Experience	-	3	
		<b>A</b>	<b>S</b>
PHAR 505 Pharmacy Practice IV--Pharmaceutical Care	3	-	
PHAR 506 Pharmacy Practice V--Advanced Pharmaceutical Care	-	3	
PHAR 513 Pharmacoeconomics and Outcomes Research	-	3	
PHAR 514E Pharmacy Ethics	-	3	
PHAR 550 Drug Literature Evaluation	3	-	
PHAR 553, 554 Therapeutics III and IV	4	4	
PHAR 557 Public Health in Pharmacy	2	-	
PHAR 560 Pharmaceutical Care Lab IV	1	-	
PHAR 563 Pharmaceutical Care Lab V	-	1	
PHAR 571, 572 Integrated Studies	1	1	
PHAR 578 Portfolio Assessment & APFE Orientation	-	1	
Total	14	16	
<b>Fourth Professional Year</b>			
		<b>A</b>	<b>S</b>
PHAR 579 Community Pharmacy Advanced Pharmacy Practice Experience	4	-	
PHAR 580 Hospital Pharmacy advanced Pharmacy Practice Experience	-	4	
PHAR 581 Inpatient Advanced Pharmacy Practice Experience	4	-	

PHAR 582 Ambulatory Care Advanced Pharmacy Practice Experience	- 8
PHAR Elective Pharmacy Practice Experience	8 8
Total	16 20

Required credits: 200

## Department of Pharmacy Practice

**Michael P. Rivey, Chair**

The Department of Pharmacy Practice provides academic course work for the Doctor of Pharmacy and Masters degrees, conducts research in the broad area of health care, and provides service to the profession of pharmacy and other health care disciplines.

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Pharmacy (PHAR) - Course Descriptions

195, 300, 310, 320, 324, 363, 390, 391, 395, 412, 415, 451, 452, 460, 463, 471, 472, 480, 481, 490, 491, 505, 506, 513, 514E, 516, 550, 553, 554, 556, 557, 558, 560, 563, 571, 572, 573, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 593, 594, 595, 596, 597, 599, 603, 604

### Faculty

#### Professors

Douglas R. Allington, Pharm.D., University of South Carolina, 1988

Donna G. Beall, Pharm.D., University of Florida, 1984

Jean T. Carter, Ph.D., University of Arizona, 1997

Gayle A. Hudgins, Pharm.D., Duquesne University, 1976

William J. Docktor, Pharm.D., University of Michigan, 1977

David S. Forbes, Ph.D., University of Wisconsin, 1973 (Dean)

Sarah Johnston Miller, Pharm.D., Mercer University, 1985

Lori J. Morin, Pharm D., M.B.A., The University of Montana, 1981 (Assistant Dean for Student Affairs)

Michael P. Rivey, M.S., University of Iowa, 1982 (Chair)

#### Associate Professors

Sherrill Brown, Pharm.D., University of Missouri, Kansas City, 2003

Vincent J. Colucci, Pharm.D., Idaho State University, 1995

Kendra Procacci, Pharm.D., University of Wyoming, 2004

#### Assistant Professors

Annjeanette E. Belcourt-Dittloff, Ph.D., University of Montana, 2006

Katy Hale, Pharm.D., University of Washington, 2004

Kerry J. Haney, Pharm.D., The University of Montana, 2011

**Instructor**

Lisa Venuti, Pharm.D., The University of Montana, 2003

**Department of Biomedical and Pharmaceutical Sciences**

**Richard J. Bridges, Chair**

The Department of Biomedical and Pharmaceutical Sciences offers a curriculum in support of the Doctor of Pharmacy (Pharm.D.) degree and graduate programs in the biomedical and pharmaceutical sciences. Degree programs include the M.S. in Neuroscience, Pharmaceutical Sciences, Toxicology and Medical Chemistry; and the Ph.D. in Neuroscience, Biomedical Sciences, Toxicology, and Medical Chemistry. These programs provide education and training in pharmacology, toxicology, neurobiology, neurochemistry, medicinal chemistry, and molecular genetics. Program graduates are well prepared for careers in academia, government and industry.

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Biomedical and Pharmaceutical Sciences (PHAR) - Course Descriptions**

110N, 145N, 191, 324, 328, 331, 341, 342, 347, 361, 362, 371, 372, 381, 390, 391, 401, 421, 422, 430, 432, 443, 444, 445, 495, 497

**Biomedical and Pharmaceutical Sciences (BMED) - Course Descriptions**

545, 581, 582, 583, 593, 594, 595, 596, 597, 599, 600, 605, 607, 609, 610, 613, 614, 615, 620, 621, 622, 623, 625, 626, 627, 630, 632, 635, 637, 641, 642, 643, 644, 645, 646, 647, 657, 661, 662, 667, 697, 699

**Faculty**

**Professors**

Howard D. Beall, Ph.D., University of Florida, 1991

Richard J. Bridges, Ph.D., Cornell University Medical College, 1987 (Chair)

Fernando Cardozo-Pelaez, Ph.D., University of Southern Florida, 1996

J. Douglas Coffin, Ph.D., State University of New York Health Sciences Center at Syracuse, 1989

John Gerdes, Ph.D., University of California, Riverside, 1982

Vernon R. Grund, Ph.D., University of Minnesota, 1974 (Associate Dean Planning and Development)

Andrij Holian, Ph.D., Montana State University, 1975 (Director, Center for Environmental Health Sciences)

Michael Kavanaugh, Ph.D., Oregon Health Sciences University-Portland, 1987 (Director, Center for Structural and Functional Neuroscience)

Diana I. Lurie, Ph.D., University of Pennsylvania, 1989

Nicholas Natale, Ph.D., Drexel University, 1978

Charles M. Thompson, Ph.D., University of California, Riverside, 1982

**Associate Professors**

Lilian Calderon-Garciduenas, M.D., Ph.D., University of North Carolina, 2001

Darrell Jackson, Ph.D., Washington State University, 1990



Curtis W. Noonan, Ph.D., Colorado State University, 2000

Keith K. Parker, Ph.D., University of California, San Francisco, 1977

Mark A. Pershouse, Ph.D., University of Texas-Houston, 1993

Elizabeth A. Putnam, Ph.D., University of Texas-Houston, 1989

Kevan Roberts, Ph.D., Christie Hospital in Manchester, U.K., 1984

David M. Shepherd, Ph.D., Oregon State University, 1999

Jerry R. Smith, Ph.D., University of Mississippi, 1977

Anthony Ward, Ph.D., The University of Montana, 2001

Erica L. Woodahl, Ph.D., University of Washington, 2004

#### Assistant Professors

J. Josh Lawrence, Ph.D., University of Wisconsin-Madison, 1999

Yoon Hee Cho, Ph.D., Seoul National University, 2006

#### Lecturer

David S. Freeman, Ph.D., University of Washington, 1974

#### Research Professor

Andrea Stierle, Ph.D., Montana State University, 1988

Donald Stierle, Ph.D., University of California-Riverside, 1978

David J. Poulsen, Ph.D., University of Delaware, 1995

#### Research Associate Professors

Dianne L. DeCamp, Ph.D., University of Delaware, 1988

Philippe Diaz, Ph.D., University Paul Cezanne, 1997

#### Research Assistant Professors

Celine Beamer, Ph.D., University of Montana, 2002

Michael Braden, Ph.D., Purdue University, 2007

Zeina Jaffar, Ph.D., University of College London, 1991

Christopher T. Migliaccio, Ph.D., University of California-Davis, 2000

Sarjubhai A. Patel, Ph.D., University of Montana, 2000

Thomas Rau, Ph.D., University of Montana, 2007

#### Emeritus Professors

Todd G. Cochran, Ph.D., University of Washington, 1970

Charles L. Eyer, Ph.D., Washington State University, 1976

Rustem S. Medora, Ph.D., University of Rhode Island, 1965

## School of Social Work

- . Special Degree Requirements
- . Suggested Course of Study
- . Courses
- . Faculty

Ryan Tolleson Knee, Chair

Social work is a human service profession concerned with the prevention of social problems, the maintenance of satisfying social relationships and the enhancement of human development. It focuses on people and their social environment. Social workers employ a range of knowledge and skills as the basis for constructive intervention on behalf of various client populations. The Bachelor of Arts and Master of Social Work degrees are offered. The Bachelor of Arts degree prepares graduates for generalist social work practice. The Master of Social Work degree prepares graduates for advanced integrated practice.

The undergraduate major in social work is available for those who wish to prepare for: (1) professional employment in the social services; (2) entry into a graduate school of social work; (3) graduate education in other helping service professions. The graduate degree in social work prepares graduates for advanced social work practice. Students can enroll in a two year full-time program or in a part-time option. See The University of Montana Graduate Catalog for a description of the Master of Social Work program. Both the Bachelor of Arts degree and the Master of Social Work degree are fully accredited by the Council on Social Work Education.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

Forty credits in social work courses are required for the bachelor degree. The following courses must be successfully completed: SW 100, 200, 300, 310, 350, 360, 400, 410, 487, 488, and 10 credits in SW 495 over two semesters.

Requirements for the bachelor degree include course work outside the School of Social Work providing content in the social and behavioral sciences, human biology, and human diversity. Required course work includes ECNS 101S or 201S or 202S (ECON 100S, 111S, 112S) ; PSCI 210S (PSC 100S); SOCI 101S (SOC 110S); PSYX 100S, 230S, 233 (PSYC 100S, 240S, 245); BIOB 101N (BIOL 100N) or PSYX 250N (PSYC 270N); ANTY 122S (ANTH 180S) or SOCI 220S (SOC 220S) or GPHY 121S (GEOG 101S). No fewer than five of these eight course requirements must be completed before enrollment will be permitted in required 300-level social work courses

To enroll in required 300- and 400-level social work courses, social work majors are required to have earned and to maintain a 2.75 grade point average for all college course work. To ensure that they have complied with all course prerequisites, grade point average requirements and compliance with professional social work ethics, students must complete a formal application to the social work major for school approval prior to admission to required social work courses at the 300-level or above.

Social work majors are required to complete a two-semester practicum placement (SW 495 section 01 and 02, Field Work Practicum, 5 credits each semester). Refer to the SW 495 course description for admission and completion requirements regarding this specific course.

The upper-division writing expectation must be met by successfully completing an upper-division writing course from the approved list in the Academic Policies and Procedures section of this catalog. SW 300 and SW 310 will satisfy this requirement. Social work majors who wish to explore more specialized study in such areas as children, exceptional persons, or the family should consider the Human and Family Development minor program, which is described elsewhere in the catalog. The School of Social Work offers a Title IV-e Child Welfare Training Program for eligible B.A. and M.S.W. students interested in a career in child protective services. The Gerontology Fellows Program is available to undergraduate students pursuing a career in gerontological or intergenerational social work.

Social work majors are expected to conduct themselves according to the ethical standards of the National Association of Social Workers as well as those applicable to students of the University. Other professional expectations are described in the Student Handbook, available from the school or on web page <http://socialwork.health.umt.edu/content/student-handbook>

Majors in social work are assigned a faculty advisor who they are required to meet with at least once per semester as soon as the social work major is declared. A school advising guide is available to all students at the School of Social Work office or on the web page [[www.health.umt.edu/sw/default.html](http://www.health.umt.edu/sw/default.html)]. The Master of Social Work requirements are detailed in The University of Montana Graduate online Catalog [[www.umt.edu/grad/](http://www.umt.edu/grad/)].

### Suggested Course of Study

	First Year	A	S
PSCI 210S (PSC 100S) Introduction to American Government	-	3	
PSYX 100S (PSYC 100S) Introduction to Psychology	4	-	
SOCI 101S (SOC 110S) Introduction of Sociology	-	3	
SW 100 Introduction to Social Welfare	3	-	
General Education	9	9	
Total		16	15
	Second Year	A	S
SW 200 Introduction to Social Work Practice	4	-	
BIOB 101N (BIOL 100N) Discover Biology	-	3	
ECNS 101S or 201S or 202S (ECON 100S, 111S, 112S) Economic Way of Thinking	3	-	
PSYX 230S (PSYC 240S) Developmental Psychology	-	3	
PSYX 233 (PSYC 245) Fund of Psychology of Aging	-	3	

ANTY 122S (ANTH 180S) Race and Minorities or SOCI 220S (SOC 220S) Race, Gender & Class or GPHY 121S (GEOG 101S) Human Geography	3	-
General Education	6	6
Total	16	15
<b>Third Year</b>		
SW 300 Human Behavior and Social Environment	3	-
SW 310 Social Welfare Policy and Services	-	4
SW 350, 360 Social Work Intervention Methods I, II	3	3
Electives	6	9
Total	14	16
<b>Fourth Year</b>		
SW 400 Social Work Research	3	-
SW 410 Social Work Ethics	-	3
SW 487, SW 488 Advanced Practice I, II	2	2
SW 495 Practicum I & II	5	5
Electives	5	5
Total	15	15

### Minor in Gerontology

Students in the Gerontology Minor program will study issues of aging from an interdisciplinary perspective and come to understand the interplay between them, including health and medical as well as social and psychological needs of older persons. Although this interdisciplinary minor is housed in the School of Social Work, students in other majors may complete the minor in consultation with both the Chair of the Gerontology Minor and the students' academic advisors in their respective departments. Students must consult with their major advisor to select electives, practicum or volunteer experiences, and integrating courses that will meet the requirements of the minor. The minor will require successful completion of four required core courses (12 credits), an integrating course with gerontological content within the student's major (3 credits), one or two elective courses (3-6 credits), and a practicum course within the student's major (3 credits) for a total of 21-24 credits. Core courses are:

- . HS 325 Introduction to Gerontology 3 cr.
- . SW 455 Social Gerontology 3 cr.
- . PSYX 233 (PSYC 245) Fund of Psychology of Aging 3cr.
- . HS 430 Health Aspects of Aging 3 cr.

Students should contact the School of Social Work for a complete list of appropriate major and elective courses.

### Courses

#### Social Work (S W) - Course Descriptions

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

100, 195, 198, 200, 295, 300, 310, 323, 324, 350, 360, 395, 398, 400, 410E, 420S, 423, 430, 434, 440, 450, 455S, 460, 465, 470, 475, 485, 487, 488, 489, 494, 495, 496, 500, 505, 510, 511, 515, 520, 521, 525, 530, 531, 535, 545, 550, 551, 552, 553, 554, 555, 576, 577, 578, 579, 586, 587, 588, 589, 593, 594, 595, 596, 597

### Faculty

#### Professors

Cynthia Garthwait, M.S.S.W., University of Wisconsin, Madison, 1974

Janet Finn, Ph.D., University of Michigan, 1995

#### Associate Professors

Jim Caringi, Ph.D., University of New York, 2007

Timothy Conley, Ph.D., Boston College, 2001

Mary-Ann Sontag Bowman, Ph.D., University of California Berkeley, 1993

Ryan Tolleson Knee, Ph.D., University of Denver, 1999 (Chair)

#### Instructor

Bart Klika, M.S.W., University of Chicago, 2008

**Adjunct Assistant Professors**

Tondy Baumgartner, M.S.W., Walla Walla College, 1998

Kerrie Ghenie, M.S.W., Walla Walla College, 2000

Charlie Wellenstein, M.S.W., Eastern Washington University, 1991

**Emeritus Professors**

Frank Clark, Ph.D., University of Oregon, 1969

Robert Deaton, Ed.D., University of Nevada, Reno, 1980

Charles Horejsi, Ph.D., University of Denver, 1971

John Spores, Ph.D., University of Michigan, 1976

## Department of Communicative Science and Disorders

- . Special Degree Requirements
- . Suggested Course of Study
- . Courses
- . Faculty

**Lucy Hart Paulson, Chair**

The Bachelor of Arts Degree in Communicative Sciences and Disorders prepares students for graduate study in speech-language pathology, audiology, various education specialties, business, and health care as well as such fields as developmental and cognitive psychology. The Master of Science degree provides students with the foundational knowledge and clinical skills in the field of speech language pathology to work in medical and educational settings with clients across the life span.

**Special Degree Requirements**

Refer to graduation requirements listed previously in the catalog. See index.

**Requirements for a Bachelor of Arts with a major in Communicative Sciences and Disorders**

To graduate with a BA degree in Communicative Sciences and Disorders, the student must successfully complete 1) 42 total CSD credits (with 30 of those credits in courses numbered 300 or above); 2) complete all out of department required courses (see below); 3) the University of Montana general education requirements (GER) and 4) the Upper division Writing Expectation must be met by successfully completing CSD 430 and 440.

**Required courses within Department (42 crs.):**

- . CSD U 110 - The Field of CSD 3 cr.
- . CSD U 210 - Speech and Language Development 3 cr.
- . CSD U 221N - Fundamentals of Acoustics: Applications in Speech, Hearing & Language 3 cr.
- . CSD U 222 - Introduction to Audiology 3 cr.
- . CSD U 320 - Phonological Development and Phonetics 3 cr.
- . BIOH U 330 (CSD 330) - Anatomy and Physiology of the Speech and Hearing Mechanisms 3 cr.
- . CSD U 340 - Speech Disorders 3 cr.
- . CSD U 360 - Language Disorders 3 cr.
- . CSD U 405 - Clinical Process 3 cr.
- . CSD U 411 - Neuroanatomy and Physiology for Communication 3 cr.
- . CSD U 420 - Speech Science 3 cr.
- . CSD U 430 - Senior Capstone I 3 cr.
- . CSD U 440 - Senior Capstone II 3 cr.
- . CSD UG 450 - Introduction to Aural Rehabilitation 3 cr.

**Out of Department required courses (19-20 crs.)**

- . Biological Science i.e. BIOB 101N (BIOL 100N) Discovery Biology or BIOB 160N (BIOL 110N) Principles of Living Systems 3-4 cr.
- . Physical Science (i.e. ASTR 131N - Elementary Astronomy I, CHMY 121N & 122 (CHEM 151N & 153) - Introduction to General Chemistry and Lab, GEO 101N (GEOS 100N) Introduction to Physical Geology 3-4 cr.
- . LING 270S - Introduction to Linguistics 3 cr.
- . STAT 216 (MATH 241) - Introduction to Statistics or PSYX 222 (PSYC 220) - Psychological Statistics or SOCI 202 (SOC 202) - Social

Statistics 3 cr.

PSYX 100S (PSYC100S) - Introduction to Psychology 4 cr.

PSYX 120 (PSYC 120) - Research Methods I 3 cr.

PSYX 230S (PSYC 240S) - Developmental Psychology or PSYX 233 (PSYC 245) Fundamentals of Psychology of Aging 3 cr.

**Elective courses within Department:**

CSD U 131 - American Sign Language I 3 cr.

CSD U 132 - American Sign Language II 3 cr.

CSD UG 480 - Multicultural Issues in Speech, Language and Hearing 3 cr.

CSD U 491 (CSD 495) - Special Topics 3 cr.

CSD U 495 (CSD 490) - Practicum 3 cr.

CSD U 498 (CSD 497) - Independent Research 3 cr.

**Suggested Course of Study**

	<b>First Year</b>	<b>A S</b>
CSD 110 The Field of CSD		3 -
PSYX 100S (PSYC100S) Introduction to Psychology		- 4
M 115 (MATH 117) Probability and Linear Math		- 3
WRIT 101 (ENEX 101) College Writing I		3 -
LING 270 Introduction to Linguistics		- 3
BIOB 101N (BIOL 100N) Discovery Biology or BIOB 160N (BIOL 110N) Principles of Living Systems		3 -
General Education/Electives		6 6
<b>Total Credits</b>		<b>15 16</b>
	<b>Second Year</b>	
BIOH 330 (CSD 330) Anat & Phys Speech Mech		3 -
CSD 210 Speech & Language Development		3 -
CSD 221N Foundations of Acoustics		- 3
CSD 222 Introduction to Audiology		3 -
PSYX 230S (PSYC 240S) Developmental Psychology or PSCX 233 (PSYC 245) Fundamentals of Psychology of Aging		3 -
PSYX 120 (PSYC 120) Research Methods I		- 3
General Education/Electives		3 9
<b>Total Credits</b>		<b>15 15</b>
	<b>Third Year</b>	
STAT 216 (MATH 241) Introduction to Statistics or PSYX 222 (PSYC 220) Psychological Statistics or SOCI 202 (SOC 202) Social Statistics		4 -
CSD 320 Phonological Development & Phonetics		3 -
CSD 340 Speech Disorders		- 3
CSD 360 Language Disorders		- 3
General Education/Electives (Students must complete 9 total upper-division credits outside of the CSD major)		9 9
<b>Total Credits</b>		<b>16 15</b>
	<b>Fourth Year</b>	
CSD 405 The Clinical Process		- 3
CSD 411 Neuroanatomy & Physiology for Communication		- 3
CSD 420 Speech Science		- 3
CSD 430 Senior Capstone I		3 -
CSD 440 Senior Capstone II		- 3
CSD 450 Introduction to Aural Rehabilitation		- 3
CSD 480 Multicultural Issues in Speech Language and Hearing		3 -
Electives (Students must complete 9 total upper-division elective credits)		9 -
<b>Total Credits</b>		<b>15 15</b>

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Communicative Sciences and Disorders (CSD) - Course Descriptions**

110, 131, 132, 210, 221N, 222, 320, 340, 350, 360, 370, 405, 411, 420, 430, 440, 450, 470, 480, 491, 495, 498, 520, 525, 526, 530, 540, 545, 550, 560, 563, 565, 566, 570, 575, 600, 610, 640, 675, 691, 696, 698, 699

**Faculty**

**Academic and Clinical Faculty**

Ginger C. Collins, Ph.D., CCC-SLP (Louisiana State University, 2011)

Amy Glaspey, Ph.D., CCC-SLP (The University of Washington, 2006)

Lucy Hart Paulson, Ed.D., CCC-SLP (The University of Montana, 2004) (Chair)

Anne Kennedy, M.S., CCC-SLP (University of Iowa, 1998)

Christine Merriman, M.A., CCC-SLP (The University of Montana, 1979) (Clinical Director)

Catherine Off, Ph.D., CCC-SLP (University of Washington, 2008)

Jennifer Schoffer Closson, M.S., CCC-SLP (Minot State University, 1999)

Laurie Slovorp, M.S., CCC-SLP (Arizona State University, 2000)

Yonovitz, AI, Ph.D., CCC-A. MAudSA (CCP) (University of Connecticut, 1973)

## Counselor Education

- . Courses

- . Faculty

Rita Sommers-Flanagan, Chair

The Counselor Education program educates students for employment in school (K-12 and higher education) and community mental health and human service settings. Counselors are practitioners, consultants, and coordinators who assist in problem solving, decision-making skills, personal growth and development, and individual, family school, and/or career issues. Counselors receive training in the eight core areas identified by the American Counseling Association Council for Accreditation of Counseling and Related Educational Programs: human growth and development, social and cultural foundations, the helping relationship, group theories and methods, career and lifestyle development, client assessment and evaluation, research and program evaluation, and professional orientation. We offer a School Counseling M.A., a Mental Health Counseling M.A., and an Interdisciplinary M.A.. Each option requires additional specialty courses and comprehensive written and oral examinations focused on the student's career track. The more advanced graduate degrees (Ed.S. and Ed.D.) develop depth, supervisory, and leadership skills in these areas.

The Department of Counselor Education is also the academic home for an interdisciplinary masters degree in Intercultural Youth and Family Development. Students in this program are prepared for humanitarian and advocacy work, focusing specifically on youth and family development across cultures. Requirements include one year of campus-based course work and an approved internship of at least two semesters duration working with youth and family concerns. IYFD is a Peace Corps Master's International program, and the expectation therefore is that students will complete the Internship requirement by serving as U.S. Peace Corps Volunteers abroad. For further information and course listings, click on the IYFD link:

<http://coehs.umt.edu/departments/counseld/IYFD/default.php>

**Graduate Programs:**The M.A., Ed.S., and Ed.D. are offered in Counselor Education. An interdisciplinary M.A. is offered in Intercultural Youth and Family Development. Information regarding specific requirements and program options is available from the Phyllis J. Washington College of Education and Human Sciences. For more information, please refer to The University of Montana Graduate Programs and Admissions Catalog. Graduate programs are accredited by NCATE and CACREP.

**Admission to Counseling:**Applicants for this program should contact the Department for more specific admissions information. Requirements include GRE verbal and quantitative less than 5 years old; official transcripts from all undergraduate and graduate institutions attended; three current letters of recommendation; and a letter of application stating academic and professional background, purpose in obtaining the degree, and thoughts about eventual employment and career direction. Deadline is February 1. Admission is competitive. Meeting graduate school minimum grade average and GRE requirements will not necessarily insure acceptance.

**Certification Requirements:** The Counselor Education, M.A., School Counseling option, leads to licensure at the Class IV level.

### Courses

**Counselor Education (COUN) - Course Descriptions**

242, 395, 475, 485, 495, 510, 511, 512, 520, 530, 540, 550, 560, 565, 566, 570, 575, 580, 585, 589, 594, 595, 596, 597, 610, 615, 625, 633, 685, 699

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Faculty

**Professors**

Catherine Jenni, Ph.D., Saybrook Institute, 1990

Rita Sommers-Flanagan, Ph.D., The University of Montana, 1989 (Chair)

John Sommers-Flanagan, Ph.D., The University of Montana, 1986

**Assistant Professor**

Kirsten W. Murray, Ph.D., Idaho State University, 2007

Lindsey Nichols, Ph.D.

**Adjunct Professors**

Kim Brown Cambell, Ed.D., The University of Montana, 2012

Renee Schoening, Ed.D., The University of Montana, 2005

Mike Frost, M.A., The University of Montana, 2013

Gary Hawk, M. Div.

Sidney Shaw, M.A.

**Department of Curriculum and Instruction**

- . Elementary Education Requirements
- . Secondary Licensure Requirements
- . Courses
- . Faculty

**Georgia Cobbs, Chair**

The Department of Curriculum and Instruction offers the Bachelor of Arts degree in elementary education and teaching licensure in elementary education. The department also offers teaching licensure at both the secondary and K-12 levels for students who are earning or have already completed the baccalaureate degree (teaching major or teaching minor) in one of the following state-approved content areas: Art, Biology, Business and Information Technology Education, Chemistry, Earth Science, Economics, English, English as a Second Language, French, General Science Broadfield Major, Geography, German, Government, Health and Human Performance, History, Latin, Library Media, Mathematics, Music, Physics, Psychology, Reading, Russian, Social Studies Broadfield, Sociology, Spanish, Special Education, and Theatre. (See specific requirements for each in the following pages.) At the graduate level, the department offers master and doctoral degrees in Curriculum and Instruction. Programs across all degree levels are organized to foster the development of learning communities and incorporate three essential themes: integration of ideas; cooperative endeavors; and respect for diversity and individual worth. The Web address for the Department of Curriculum and Instruction is <http://coehs.umt.edu/departments/currinst/default.php>.

**Graduate Programs**

The department offers the Master of Education (M.Ed.) in curriculum and instruction. Students select from one of the following options: curriculum studies, library media services, literacy education, and special education. Students may earn the master's degree in combination with requirements for initial teacher licensure at the elementary and secondary levels. This option is further explained below. The department also offers the Doctor of Education (Ed.D.) in curriculum and instruction. Information about these graduate programs is available from the department office, UM Graduate Programs and Admissions Catalog, and online:<http://coehs.umt.edu/departments/currinst/masterofed/default.php>.

**Teacher Preparation****Elementary Education**

Individuals preparing to teach in elementary schools (license for grades K-8) complete a major in elementary education. Prior to their admission to the Teacher Education Program, usually at the end of the sophomore year, students are pre-education majors in the College of Education and Human Sciences. All pre-education and elementary education majors are advised by fulltime advisors within the Department of Curriculum and Instruction.

**Secondary licensure**

Students preparing to teach at the middle or high school levels (license for grades 5-12) will declare a major in the subject area(s) they

wish to teach, e.g., English, mathematics, or any other of the state-approved major content endorsement areas listed previously. They are advised within their major department(s) and, upon admission to the Teacher Education Program, they also are advised within the Department of Curriculum and Instruction regarding the requirements necessary to earn secondary licensure. All secondary licensure students seek admission to the Teacher Education Program, usually at the end of the sophomore year, and complete course work required for licensure in Curriculum and Instruction and in their major content area(s).

Applicants for Montana teaching licensure must: (1) satisfy all degree and licensure requirements as outlined below; and (2) be at least 18 years of age. Information about the Teacher Education Program is available in the department office and online at:

<http://www.coehs.umt.edu/>

#### Master's Degree and Initial Licensure

Individuals who have completed a degree may elect to apply to the department's Graduate Program and combine the master's degree in curriculum and instruction (curriculum studies option) with licensure to teach. At the secondary licensure level, the combined program may be completed in a summer-autumn-spring-summer sequence provided the student previously has completed most of the content courses listed on the following pages by subject area. At the elementary licensure level, the program typically takes two academic years.

#### Technology in Education

Grades K-12. Area of Permissive Special Competency only. This minor leads to an area of permissive special competency in technology in education for those attaining or holding a Montana teaching license. It does not qualify as a teaching endorsement in Montana.

- . C&I 515 Computer & Other Technological Apps in Education 3 cr.
- . C&I 570 Instruction Technology Foundations 3 cr.
- . C&I 571 Planning, Preparing and Assessing Educ Tech Media 3 cr.
- . C&I 580 Distance Learning Theory and Implementation 3 cr.
- . C&I 581 Planning & Mgmt for Tech in Education 3 cr.
- . C&I 582 Educational Technology: Trends and Issues 3 cr.
- . C&I 584 Authentic App in Instructional Design for Tech 3 cr.
- . Total 21 cr.

Equivalent courses from MSU-Bozeman, MSU-Billings and MSU-Northern may substitute for C&I 515, 570, 571, 580, 581, 582 and 584. Please consult an advisor for approved courses.

#### Assessment at Admission to the Undergraduate Teacher Education Program

Individuals seeking licensure to teach must apply for admission to the professional Teacher Education Program. Admission is limited to approximately 125 elementary and 125 secondary candidates per year. Deadlines for application are September 15 and February 15. Individuals are eligible for consideration for admission if they have:

- . been admitted to the University of Montana;
- . completed at least 30 semester credits;
- . earned a minimum cumulative GPA (including all transfer credits) of 2.75;
- . completed an English composition course (WRIT 101) with a grade of C- or better in each;
- . demonstrated evidence of writing ability as in an application essay;
- . documented appropriate experience in working with children or youth;
- . secured supportive recommendations from two faculty members;
- . presented results of a national fingerprint-based background check; and
- . demonstrated appropriate professional behaviors and dispositions associated with success in the profession in a small group interview process.

The Teacher Education Program Admission Application packet includes a policy and procedures handbook and can be downloaded from the website: <http://coehs.umt.edu/departments/currinst/forms.php>.

Once admitted, licensure candidates must maintain a minimum GPA of 2.75 each semester to continue in the program. Candidates who interrupt their studies for more than two years are placed on inactive status and must apply for readmission to both the University and the Teacher Education Program.

Candidates seeking a K-12 endorsement in library media, literacy, or special education must have full admission to the Teacher Education Program or be a licensed teacher before applying to one of these specialized programs.

Degree-holding individuals are invited to submit transcripts for review to determine how previous course work applies. They may earn a second baccalaureate degree and/or a teaching license or they may combine elementary or secondary licensure with a master's degree. They should enroll with the Admissions Office as "post-baccalaureate" unless pursuing a graduate degree.



### Admission Policy for Minority Students and Students with Disabilities

The Teacher Education Program is committed to providing opportunities for teacher preparation for members of groups that historically have been disadvantaged and subject to discrimination. The criteria for admission are the same for students with disabilities and for members of racial, ethnic and other minorities, as for other students; however, students who do not meet one or more of the criteria for admission are encouraged to describe in their applications any special circumstances, experiences, skills and/or special talents that may compensate for unmet criteria. The physical, social, economic, and cultural circumstances that may have influenced a student's ability to achieve minimum eligibility for admission will be considered. A special effort will be made to determine the student's abilities and potential to overcome disadvantage or discrimination and become a successful beginning teacher. Upon entry to the program, the candidate will be assigned to a faculty mentor. The candidate and mentor will design a course of study appropriate for the candidate's progression toward the degree and/or licensure.

### Assessment at Application for Student Teaching

Candidates begin planning for student teaching two semesters prior to placement. Candidates are eligible to student teach if they have:

- . full admission into the Teacher Education Program;
- . a grade of C- or better in all required licensure courses;
- . a minimum cumulative GPA of 2.75 (and 2.75 in each field of licensure);
- . a passing score on the Writing Proficiency Assessment;
- . results of a current national fingerprint-based background check (candidates with misdemeanors or felonies may be subject to further review by the Field Experience Committee);
- . a completed application to student teach and the consent of the Director of Field Experiences;
- . for elementary education majors, student should be enrolled in the Professional Methods Block, and have completed all coursework in all previous levels.
- . for secondary licensure candidates, all methods courses, two thirds of content course work, and approval by departments in the major/minor content area.

Consult the Teacher Education Policy Handbook for application deadlines and procedures. The Student Teaching Application is available on the Field Experiences website at <http://coehs.umt.edu/tes/fieldexp/default.php>.

Internships and practica in library media, reading, and special education do not substitute for the student teaching semester required for licensure in a subject field.

### Assessment at Program Completion:

As active participants in this learning community, candidates are expected to assume roles as both learners and teachers in course work and clinical performance. Through personal disposition, classroom performance, and professional action, candidates who complete the Teacher Education Program at the University of Montana will be able to:

- . demonstrate knowledge of the disciplines and subject matter related to curriculum;
- . design interdisciplinary and discrete subject area instruction to achieve curriculum goals;
- . use appropriate technologies and resources to enhance instruction and student performance;
- . select and design appropriate, authentic means of assessing student learning and progress;
- . implement instructional and behavioral management strategies to promote a safe and positive learning environment;
- . engage students in learning activities that promote critical and creative thinking;
- . design and organize learning environments to accommodate learners;
- . communicate clearly, accurately and professionally with students and their families, colleagues, and community members;
- . reflect on professional practices and demonstrate commitment to fairness and the ability of all to learn.

### Indian Education for All

It is Montana's constitutional intent that the state's education system will recognize the distinct and unique cultural heritage of American Indians and will be committed in its education goals to the preservation of their cultural heritage. The intent of the legislature as expressed in MCA20-1-501, Indian Education for All, is that every Montanan, whether Indian or non-Indian, be encouraged to learn about the distinct and unique heritage of American Indians in a culturally responsive manner. It is also intended that educational personnel provide means by which school personnel will gain an understanding for the American Indian people.

Candidates preparing for teaching licensure in all endorsement areas are required to complete a minimum of one course in Native American Studies. Candidates also may choose ANTY 323X (ANTH 323X), Indians of Montana, to meet this requirement. Throughout their programs of study candidates must demonstrate a) ability to integrate into their content areas knowledge of the history, cultural heritage, and contemporary status of American Indians and tribes in Montana; b) knowledge of how students within different populations, including Montana American Indians, differ in their approaches to learning; and c) ability to create instructional opportunities that are adapted to diverse learners, including situations where concentrated generational poverty has affected student academic achievement.

## Elementary Education Degree and Licensure Requirements (Grades K-8)

To qualify for the Montana elementary teaching license, candidates must earn a baccalaureate degree from the University or other approved institution of higher education. The degree in elementary education requires a minimum of 120 credits as specified below. Candidates must complete all specific requirements listed below with a grade of "C-" or better. None of these courses may be taken as credit/no credit except where that is the only grading option.

Elementary education majors meet the upper-division writing expectation by successfully completing EDUC 397 (C&I 318). Majors must pass the Writing Proficiency Assessment prior to enrolling in EDUC 397 (C&I 318).

\*Courses for each Level are co-requisites; they must be taken concurrently.

Candidates may add other courses as necessary to complete a full semester course load. This blocked format allows for integration of curriculum, modeling of cooperative learning and collaborative teaching, and corresponding developmental field experiences.

### Curriculum for Elementary Education

#### First and Second Years Credits

WRIT 101 (ENEX 101) College Writing I	3
SCI 225N, 226N General Science; Physical and Chemical, Earth and Life	10
HEE 233 (HHP 233) Health Issues of Children and Adolescents	3
PSCI 210S (PSC 100S) Introduction to American Government	3
HSTA 255 (HIST 269) Montana History	3
GPHY 121S (GEOG 101S) Introduction to Human Geography OR GPHY 141S (GEOG 103S) World Regional Geography	3
M 135-136 (MATH 130-131) Math for K-8 Teachers I & II	9
ARTZ 302A (ART 314A) Elementary School Art	3
THTR 239 Creative Drama/Dance K-8	2
HEE 302 (HHP 339) Instructional Strategies in Elementary Health and Physical Education	3
MUSE 397 (MUS 335) Methods: K-8 Music	3
Selected history course (HSTA 101 or 102 (HIST 151 or 152) recommended)	3-4
Selected literature course ("L" designated writing course)	3-4
Native American Studies course	3
EDU 331 (C&I 316) Literature and Literacy for Children	3
Current Standard First Aid and CPR certificates or HHP 288/289	0-3
Electives and General Education	4-6

#### Third and Fourth Years

\*Level 1: Learning & Instruction:

EDU 222 Educational Psychology and Child Development	3
EDU 338 Academic Interventions	3
EDU 395 Clinical Experience: Learning & Instruction	1
EDU 397 Methods: Teaching and Assessing K-4 Early Numeracy	3
EDU 397 Methods: Teaching and Assessing PK-3 Early Reading	3

\*Level 2: Critical Thinking & Problem Solving:

EDU 395 Clinical Experience L2: Critical Thinking & Problem Solving	1
EDU 346 Exceptionalities	3
EDU 397 Methods: Teaching & Assessing PK-8 Language Arts	3
SCI 350 Environmental Perspectives	2
EDU 407 Ethics and Policy Issues	3
EDU 370 Integrating Technology into Education	3

\*Level 3: Pedagogy and Content Knowledge

EDU 495 Clinical Experience L3: Pedagogy and Content Knowledge	1
EDU 340 Classroom Management	3
EDU 497 Methods: Teaching & Assessing 5-8 Mathematics	3
EDU 497 Methods: Teaching & Assessing K-8 Social Studies	3
EDU 497 Methods: Teaching & Assessing K-8 Science	3
EDU 497 Methods: Teaching & Assessing 4-8 Reading	3

\*Level 4: Student Teaching

EDU 495 Student Teaching	14
EDU 491 Seminar: Reflective Practice and Applied Research	1

### Secondary Teaching Licensure Requirements (Grades 5-12)

To qualify for the Montana secondary teaching license, individuals must earn a baccalaureate degree from the University of Montana or other approved institution of higher education in the content area(s) they plan to teach at the middle and/or high school level. They must also complete the corresponding requirements for the teaching major/minor (see below). If the chosen major does not qualify as a single-field endorsement, individuals also must complete requirements for another teaching major or minor. All requirements listed below must be completed with a grade of C- or better. None of these courses may be taken credit/no credit except where that is the only grading option.

Candidates should seek advising from both the degree-granting departments and the Department of Curriculum and Instruction. Candidates are encouraged to complete licensure in more than one teaching field, even if the chosen field qualifies as a single-field endorsement.

See the Teacher Education Policy Handbook for additional information regarding the secondary licensure program.

#### Curriculum for Secondary Licensure

<b>First and Second Years</b>	<b>Credits</b>
WRIT 101 (ENEX 101) College Writing I	3
HEE 233 (HHP 233) Health Issues of Children and Adolescents	3
Current Standard First Aid and CPR certificates	0
Native American Studies course	3
Electives, General Education and/or Courses in Major and/or Minor Teaching Field(s)	Variable
<b>Third and Fourth Years</b>	
EDU 202 (C&I 200) Early Field Experience	1
EDU 221 (C&I 303) Educational Psychology and Measurements	3
EDU 345 (C&I 410) Exceptionality and Classroom Management	3
EDU 370 Integrating Technology into Education	3
EDU 395 (C&I 301 or 302) Field Experience: Grades 5-8 or 9-12 (coreq with content area methods course)	1
Teaching field(s) methods course(s)	Variable
EDU 407E (C&I 407E) Ethics and Policy Issues	3
EDU 481 Content Area Literacy	3
EDU 495 (C&I 482) Student Teaching: 5-12	14
EDU 494 (C&I 494) Professional Portfolio	1

**Licensure in Library Media:** The library media program is designed to prepare library media specialists for K-12 settings. This online program is combined with that of UM-Western. To be eligible for library media licensure, candidates must meet the teacher licensure requirements as well as complete a minimum of 25-27 credits in the following required courses: EDU 331, 432 (C&I 316, 470), LIBM 463, 464, 465, 466, 468, 491 and LIBM 461 offered through UM-Western. C&I graduate courses may substitute for EDU 331, 432, and LIBM 464.

**Licensure in Reading:** The reading program is designed to enhance the diagnostic and instructional skills of K-12 classroom teachers and remedial reading teachers. Upon completion, candidates may apply for the State of Montana K-12 reading endorsement. The program follows the philosophy of the International Reading Association. The undergraduate reading minor requires the following courses: EDU 331, 432, 397, 497, 481, 438, 441, 456 (C&I 316, 470, 318, 405, 427, 433, 435, and 437).

**Licensure in Special Education:** The Special Education program prepares teachers to work with children who are at-risk and children with disabilities in inclusive settings. To be eligible for a K-12 non-categorical endorsement in the State of Montana, candidates accepted into the program must complete the following courses: C&I 420 or elective, EDU 438 (C&I 433), C&I 453, 457, 459, 463, 469. Candidates complete EDU 345 (C&I 410) or equivalent prior to beginning the endorsement or in the first semester. The last semester consists of student teaching which may be completed with student teaching in general education.

#### Requirements for Non-Teaching Minors

##### Library Media

To complete a non-teaching minor in library media, the individual must complete the following courses:

	<b>Credits</b>
EDU 331 (C&I 316) Lit & Literacy for Children	3
EDU 432 (C&I 470) Lit & Literacy for Young Adults	3
LIBM 464 (C&I 479) Reference Resources	3
LIBM 463 (C&I 480) Library Collection Development	3
LIBM 465 (C&I 483) Library Media Technical Processes	3
LIBM 468 (C&I 484) Administration and Assessment of Library Media Programs	3
LIBM 495 (C&I 485) Library Media Practicum	3
LIBM 466 (C&I 488) Libraries and Technology	3
LIBM 461 Information Literacy	3
Total	27

##### Administrative Systems Management

To earn a non-teaching minor in administrative systems management the individual must complete the following courses:

	<b>Credits</b>
ACTG 201 (ACCT 201) Financial Accounting	3
BGEN 235 (BADM 257) Business Law	3
C&I 287 Business Communications	3
C&I 341 Information Systems and Design	3

EDU 472 (C&I 444) Advanced Technology and Supervision	3
CSCI 172 (CS 172) Introduction to Computer Modeling	3
ECNS 201S (ECON 111S) Principles of Microeconomics	3
M 115 (MATH 117) Probability and Linear Math	3
BMGT 340S (MGMT 340S) Management and Organizational Behavior	3
Total Credits	27

### Course Requirements for Major and Minor Teaching Fields

In accordance with Administrative Rules of the Montana Office of Public Instruction which were in effect when this catalog was printed, individuals seeking secondary licensure must complete requirements for a single-field teaching major (40 or more credits depending on the field) or a teaching major (30 or more credits depending on the field) and a teaching minor (20 or more credits depending on the field). In the event that the Montana Office of Public Instruction changes program standards for major or minor teaching fields, the University reserves the right to modify the requirements listed.

#### Art

Grades K-12. Qualifies as a single-field endorsement.

For an endorsement in the extended major teaching field of Art, a student must complete the requirements for a Bachelor of Arts with a major in Art with an Art Education option (see the School of Art section in this catalog and below). Individuals holding a baccalaureate degree must meet those requirements by completing the courses or demonstrate course equivalency.

	Maj.
ARTZ 105A (ART 101A) Visual Language: Drawing	3
ARTZ 106A (ART 102A) Visual Language: 2-D Fndtns	3
ARTZ 108A (ART 103A) Visual Language: 3-D Fndtns	3
ARTH 200H-201H (ART 150H-151H) Art of World Civilization I, II	6
ARTH 250L (ART 203L) Introduction to Art Criticism	3
ARTZ 284A (ART 215) Photography I - Techs and Processes	3
ARTZ 211A (ART 223) Drawing I	3
ARTZ 231A (ART 229A) Ceramics I	3
ARTZ 271A (ART 233A) Printmaking I	3
ARTZ 251A (ART 235) Sculpture I	3
ARTZ 221A (ART 240A) Painting I	3
ARTZ 402-403 (ART 407-408) Teaching Art K-12 I, II (coreq EDU 395 (C&I 301 or 302))	6
DANC 497 (DAN 427) Methods: Teaching Movement in Schools	3
ARTZ upper-division studio courses	12
ARTH upper-division art history courses	6
ARTH 350 Contemporary Art and Art Criticism	3
Total Credits	66

#### Biology

Grades 5-12. Qualifies as a single-field endorsement.

For an endorsement in the extended major teaching field of Biology a student must complete the requirements for the B.A. with a major in Biology, option in Biological Education (see the Biology section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.

For endorsements in the minor teaching field of Biology, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.

	Maj	Min.
BIOB 170N-171N (BIOL 108N-109N) Principles Biological Diversity & Lab	5	5
BIOB 160N (BIOL 110N) Principles of Living Systems	4	4
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4	4
BIOB 272 (BIOL 223) Genetics and Evolution	4	4
BIOB 301 (BIOL 301) Developmental Biology or BIOL 435 Comparative Animal Physiology	3	-
BIOE 370-371 (BIOL 340-341) General Ecology and Laboratory	5	-
BIOO 433/434 (BIOL 444-445) Plant Physiology and Laboratory	4	-
BIOM 360-361 (MICB 300-301) General Microbiology and Laboratory	5	5
EDU 497 (C&I 426) Methods: 5-12 Science (coreq (EDU 395 (C&I 301 or 302))	3	3
M 162 (MATH 150) Applied Calculus or M 171 (MATH 152) Calculus I	4	4
STAT 216 (MATH 241) Introduction to Statistics	4	4
CHMY 121N, 123N, 124N (CHEM 151N-152N, 154N) General and Inorganic and Organic and Biological Chemistry and Laboratory (major only)	8	6
CHMY 485 (CHEM 485) Laboratory Safety	1	1
PHSX 205N-206N (PHYS 111N-113N) College Physics I/Lab	5	-

GEO 105N (GEOS 105N) Oceanography or GEO 108N (GEOS 108N) Climate Change  
Total Credits

3 3  
62 43

**A biology major qualifies as a single-field endorsement. Although not required, it is recommended that students complete a second teaching major or minor.**

#### Business Education

**Grades 5-12. Qualifies as a single-field endorsement.**

**For licensure in the major teaching field of Business Education, a student must complete the requirements for a B.S. in Business Administration with a major in one of the following: accounting, finance, management, management information systems, or marketing. They also must complete the business and information technology education coursework. The course list below illustrates the management information systems major. Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For licensure in the minor teaching field of business and information technology education, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

	<b>Maj</b>	<b>Min.</b>
ACTG 201 (ACCT 201) Principles of Financial Accounting	3	3
ACTG 202 (ACCT 202) Principles of Managerial Accounting	3	-
BGEN 235 (BADM 257) Business Law	3	3
C&I 287 Business Communications	3	3
C&I 341 Information Management & Design	3	3
EDU 497 (C&I 429) Methods: 5-12 Business Subjects (coreq EDU 395 (C&I 301 & 302))	4	4
EDU 472 (C&I 444) Advanced Technology and Supervision	3	3
COMX 111A (COMM 111A) Intro to Public Speaking	3	-
CSCI 172 (CS 172) Introduction to Computer Modeling	3	3
ECNS 201S (ECON 111S) Principles of Microeconomics	3	3
ECNS 202 (ECONS 112S) Principles of Macroeconomics	3	-
BFIN 322 (FIN 322) Business Finance	3	-
BMIS 270 (MIS 270) MIS Foundation of Business	3	-
BMGT 322 (MIS 341) Operations Management	3	-
BMIS 365 (MIS 371) Business Applications Development	3	-
BMIS 370 (MIS 370) Managing Information and Data	3	-
BMIS 372 (MIS 372) Information Infrastructures: A Strategic Perspective	3	-
BMIS 373 (MIS 373) Systems Analysis and Design	3	-
BMIS 476 (MIS 476) Integrated Project Management for IS	3	-
M 115 (MATH 117) Probability and Linear Math	3	3
STAT 216 (MATH 241) Introduction to Statistics	4	-
BMGT 340S (MGMT 340S) Management and Organizational Behavior	3	-
BMGT 486 Strategic Venture Management	3	-
BGEN 499 Integrative Business Simulation	1	-
BMKT 325 (MKTG 360) Marketing Principles	3	3
Total Credits	75	31

**Business Education qualifies as a single-field endorsement. Although not required, it is recommended that students complete a second teaching major or minor.**

#### Chemistry

**Grades 5-12. Qualifies as a single-field endorsement.**

**For an endorsement in the major teaching field of Chemistry, a student must complete the requirements for the B.A. with a major in Chemistry, with appropriate electives, and with the addition of CHMY 485 (CHEM 485). A student also must complete STAT 216 (MATH 241), BIOL 380, C&I 426 and SCI 350 (see the Department of Chemistry section of this catalog and below). The foreign language requirement is waived by the Department of Chemistry for students using the B.A. degree for teacher licensure. Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For endorsement in the minor teaching field of Chemistry, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

	<b>Maj.</b>	<b>Min.</b>
CHMY 101N (CHEM 101) Chemistry for the Consumer	-	3
CHMY 141N & 143N (CHEM 161N-162N) College Chemistry and Laboratory	10	10
CHMY 221-222-223 (CHEM 221-222-223) Organic Chemistry and Laboratory	-	8
CHMY 221, 222, 223, 225 (CHEM 221, 222, 223, 264) (or 224 in place of 225 (CHEM 264)) Organic Chemistry and Lab	10	-
CHMY 302E (CHEM 334) Chemistry Literature and Scientific Writing	3	-

CHMY 360 (CHEM 370) Applied Physical Chemistry or CHMY 373 (CHEM 371) Phys Chem-Kntcs & Thrmdynmcs	-	3-4
CHMY 373-371 (CHEM 371-372) Phys Chem-Qntm Chm & Spctrscopy & Phys Chem-Kntcs & Thrmdynmcs	8	-
CMHY 311 (CHEM 341) Analytical Chem-Quant Analysis	4	4
CHMY 421 (CHEM 342) Advanced Instrument Analysis	4	-
CHMY 401-403 (CHEM 452-453) Advanced Inorganic Chemistry & Descriptive Inorganic Chem	6	-
CHMY 485 (CHEM 485) Laboratory Safety	1	1
CHMY 494 (CHEM 494) Seminar/Workshop	1	-
BCH 380 (BIOC 380) Biochemistry	4	4
CSCI 172 (CS 172) Intro to Computer Modeling	3	3
M 171, 172, AND 273 (MATH 152, 153, and 251) Calculus I, II, and III	12	-
M 162 (MATH 152) Applied Calculus	-	4
STAT 216 (MATH 241) Introduction to Statistics	4	4
PHSX 215N-216N-217N-218N (PHYS 211N-213-212N-214N) Fundamentals of Physics with Calculus I & II & Labs	10	-
PHSX 205N-206N-207N-208N (PHYS 111N-113N-112N-114N) College Physics I & II & Labs	-	10
SCI 350 Environmental Perspectives	2	2
EDU 497 (C&I 426) Methods: Science 5-12 C&I Teaching Science in Middle & Secondary Schools (coreq EDU 395 (C&I 301 or 302))	3	3
Total Credits	85	59-60

**A chemistry major qualifies as a single-field endorsement.**

**Although not required, it is recommended that students complete a second teaching major or minor.**

**Dance, Specialization in Education**

**Grades K-12. Area of Permissive Special Competency only.**

**This minor leads to an area of permissive special competency in dance for those attaining or holding a Montana teaching license. It does not qualify as a teaching endorsement in Montana.**

	<b>Maj</b>
DANC 220A (DAN 201A) Beginning Composition	2
DANC 298 (DAN 428) Internship: Children's Dance	2
DANC 300 (DAN 300) Modern III or DANC 310 (DAN 304) Ballet III	2-3
DANC 360L (DAN 335L) World Dance (also Group X)	3
DANC 440 (DAN 425) Dance Pedagogy	3
DANC 497 (DAN 427) Methods: Teaching Movement in Schools	6
Students should choose one course in Jazz, Tap, Social Dance, Cultural/World Dance or Traditional/Indigenous Dance (as available; by advisement)	2
Total Credits	20-21

**Earth Science**

**Grades 5-12. Major only. Does not qualify as a single field endorsement.**

**For an endorsement in the major teaching field of Earth Science, a student must complete the requirements for the B.S. with a major in Geosciences, Earth Science Education option (see the Department of Geosciences section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

	<b>Maj.</b>
GEO 101N-102N (GEOS 100N-101N) Intro to Physical Geology & Lab	4
GEO 105N (GEOS 105N) Oceanography or GEO 108 Climate Change	3
GEO 231 (GEOS 230) Geosciences Field Methods	2
GEO 225 Earth Materials	4
GEO 211 (GEOS 200) Earth Hist & Evolution	2
GEO 228 Earth Surface Processes	2
GEO 304 Science and Society	3
GEO 311 Paleobiology	3
GEO (GEOS) Courses numbered 300 or above	3
ASTR 131N Elementary Astronomy I	3
CHMY 121N Intro to General Chemistry	3
CHMY 123N Intro to Organic & Biochemistry	3
CHMY 485 Laboratory Safety	1
PHSX 205/206 College Physics I with Lab	5
PHSX 207/208 College Physics II with Lab	5
M 151 (MATH 121) Precalculus	4
STAT 216 Introduction to Statistics	4
EDU 497 (C&I 426) Methods: 5-12 Science (coreq. EDU 395 (C&I 301 OR 302))	3
Total Credits	57

The demand for teaching in this field is limited. The required second endorsement (either a teaching major or teaching minor) should be in a field in high demand.

#### Economics

Grades 5-12. Does not qualify as a single field endorsement.

For an endorsement in the major teaching field of Economics, a student must complete the requirements for the B.A. with a major in Economics (see the Department of Economics section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.

For an endorsement in the minor teaching field of Economics, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.

	Maj	Min.
ECNS 201S-202S (ECON 111S-112S) Principles of Micro- and Macroeconomics	6	6
ECNS 301 (ECON 311) Intermediate Microeconomics with Calculus	3	3
ECNS 302 (ECON 313) Intermediate Macroeconomics	3	3
ECNS 403 (ECON 460) Introduction to Econometrics	4	-
Economics electives 300-level or above	14	6
ECNS 488, 494, 499 (ECON 488, 487, 489) Senior Thesis sequence	6	-
EDU 497 (C&I 428) Methods: 5-12 Social Studies (coreq. EDU 395 (C&I 301 or 302))	3	3
M 115 (MATH 117), 162 (MATH 150) or 171-172 (MATH 152-153) Probability, Linear Math, Applied Calculus OR Calculus I, II 7-8	4	-
STAT 216 (MATH 241) Introduction to Statistics	4	-
Total Credits	50-51	21

The demand for teaching in this field is limited. The second endorsement (either teaching major or teaching minor) should be in a field in high demand.

#### English

Grades 5-12. Qualifies as a single-field endorsement.

For an endorsement in the extended major teaching field of English, a student must complete the requirements for the B.A. with a major in English, English Teaching option (see the Department of English section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.

For an endorsement in the minor teaching field of English, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalent.

	Maj	Min.
LIT 220L (ENLT 217L) Brit Lit: Med to Renaissance or LIT 221L (ENLT 218L) Brit Lit: Enlightenment to Rom	3	3
Choose 2: LIT 222L (ENLT 219) Brit Lit: Victorian to Contemp, LIT 210L (ENLT 224L) American Lit I, LIT 211L (ENLT 225L) American Lit II	6	6
LIT 300 (ENLT 301) Literary Criticism	3	3
LIT 327 (ENLT 320) Shakespeare	3	3
One course in poetry chosen from LIT 120L (ENLT 121L), LIT 201 or CRWR 211A (ENCR 211A)	3	-
One 300-level LIT (ENLT) course with an American literature focus	3	3
One 300-level LIT (ENLT) course with a diversity focus	3	3
ENLI 465 Structure and History of English for Teachers	3	3
ENT 439 Studies in Young Adult Literature	3	3
ENT 440 Teaching Writing	3	3
ENT 441 Teaching Reading and Literature	3	3
ENT 442 Teaching Oral Language and Media Literacy (coreq. EDU 395 (C&I 301 or 302) with either ENT 440, 441, or 442)	3	3
English Electives	6	-
Total Credits	45	36

An English major qualifies for a single-field endorsement.

Although not required, it is recommended that students complete a second teaching major or minor.

#### English as a Second Language\*

Grades K-12. Minor only.

For an endorsement in the minor teaching field of English as a Second Language, a student must complete the courses in the minor teaching field as listed in the Linguistics section of this catalog and listed below or demonstrate course equivalency.

	Min.
LING 470 Linguistic Analysis	3

LING 471 Phoenitics and Phonology	3
LING 472 Generative Syntax	3
LING 477 Bilingualism or 478 Second Language Development	3
At least two courses from the following:	
LING 466 Pedagogical Grammar	
LING 473 Language and Culture	
LING 475 Linguistics Field Methods	
LING 476 Child Language Acquisition	
LING 489 Morphology	6
LING 480 Teaching English as a Foreign Language	3
LING 491 ESL Practicum	3
Total Credits	24

**\*Students must have the equivalent of two years of a foreign language. Non-native speakers of English must take an English competency examination administered by the chair of the Linguistics Program. Courses required for the teaching minor cannot be taken on a credit/no credit basis.**

French\*

**Grades K-12. Qualifies as a single-field endorsement.**

**For an endorsement in the extended major teaching field of French, a student must complete the requirements for the B.A. with a major in French including FRCH 400 (FREN 401) and MCLG 410 (see the Department of Modern and Classical Languages and Literatures section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of French, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

**MCLG 410 Methods of Teaching Foreign Languages (prereq. to student teaching; coreq. C&I 301 or 302)**

	Maj	Min.
FRCH 101-102 (FREN 101-102) Elementary French	10	10
FRCH 201-202 (FREN 201-202) Intermediate French	8	8
FRCH 301 (FREN 301) Oral and Written Expression	3	3
FRCH 350 (FREN 302) French Civilization and Culture	3	3
Three French Literature courses from the following: FRCH 310, 311, 312, 313 (FREN 311L, 312L, 313L)	9	-
FRCH 421 (FREN 408) Advanced Composition and Conversation	3	3
FRCH (FREN) literature at the 400-level	3	-
FRCH (FREN) upper-division electives (of which 3 cr. must be culture or literature)	9	-
LING 270 Introduction to Linguistics	3	3
MCLG 410 Methods of Teaching Foreign Languages (coreq. EDU 395 (C&I 301 or 302))	3	3
Total Credits	54	33

**\*The Department of Modern and Classical Languages and Literatures requires a recommendation of the student's language proficiency and an overall minimum grade point average of 3.00 in upper-division course work in both the teaching major and minor as a prerequisite to student teaching. Study in a French language country, provided either through UM's Study Abroad Program or an experience considered to be equivalent also is required.**

**A French major qualifies as a single-field endorsement. Although not required, it is recommended that students complete a second teaching major or minor.**

General Science Broadfield Major

**Grades 5-12. Qualifies as a single-field endorsement.**

**For an endorsement in the extended major field of General Science, a student must complete the requirements for the B.A. with a major in Biology, Ecology option (see the Biology section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

ASTR 131N, 134N Elementary Astronomy and Laboratory	4
BIOB 170N-171N (BIOL 108N-109N) Principles Biological Diversity and Laboratory	5
BIOB 160N (BIOL 110N) Principles of Living Systems	4
BIOB 260 (BIOL 221) Cellular and Molecular Biology	4
BIOB 272 (BIOL 223) Genetics and Evolution	4
BIOE 370-371 (BIOL 340-341) General Ecology and Laboratory	5
CHMY 141N-143N (CHEM 161N-162N) College Chemistry I & II and Laboratory	10
CHMY 123N (CHEM 152N) Intro to Organic and Biological Chemistry	3
CHMY 485 (CHEM 485) Laboratory Safety	1
GEO 101N-102N (GEOS 100N-101N) Intro to Physical Geology and Laboratory	4



GEO 105N (GEOS 105N) Oceanography or GEO 108N (GEOS 108N) Climate Change	3
M 162 (MATH 150) Applied Calculus or M 171 (MATH 152) Calculus I	4
STAT 216 (MATH 241) Introduction to Statistics	4
PHSX 205N-206N-207N-208N (PHYS 111N-113N-112N-114N) College Physics I & II & Labs or PHSX 215N-216N-217N-218N (PHYS 211N-213-212N-214N) Fundamentals of Physics with Calculus I & II & Labs	10
EDU 497 (C&I 426) Methods: 5-12 Science (coreq. EDU 395 (C&I 301 or 302))	3
Total Credits	68

**Geography**

**Grades 5-12. Does not qualify as a single field endorsement.**

**For an endorsement in the major teaching field of Geography, a student must complete the requirements for the B.A. degree with a major in Geography (an option is not required; see the Department of Geography section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of Geography, a student must complete the courses for the minor teaching field listed below or demonstrate course equivalency.**

	<b>Maj.</b>	<b>Min.</b>
GPHY 121S (GEOG 101S) Human Geography	3	3
GPHY 111N (GEOG 102) Introduction to Physical Geography	3	3
GPHY 112 (GEOG 105) Intro to Physical Geography Lab	1	1
GPHY 141S (GEOG 103S) Geography of World Regions or another regional course	3	3
GPHY 284 Intro to GIS and Cartography	3	-
GPHY 385 (GEOG 385) Field Techniques or GPHY 497 (GEOG 471) Workshop in Teaching Geography	2-3	-
(minor may choose GPHY 385 or GPHY 284)	-	3
Three upper-division systematic geography courses one each from the fields of physical geography, human-environmental interaction, and geography and society (two for minor)	9	6
EDU 497 (C&I 428) Methods: 5-12 Social Studies (coreq. C&I 301 or 302)	3	3
Electives (minimum of 36 geography credits is required)	11-12	-
Total Credits	39	22

**The demand for teaching in this field is limited. The required second endorsement (either a teaching major or teaching minor) should be a field in high demand.**

**German\***

**Grades K-12. Qualifies as a single-field endorsement.**

**For an endorsement in the extended major teaching field of German, a student must complete the requirements for the B.A. with a major in German including MCLG 410 (see the Department of Modern and Classical Languages and Literatures section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of German, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

	<b>Maj</b>	<b>Min.</b>
GRMN 101-102 (GERM 101-102) Elementary German	10	10
GRMN 201-202 (GERM 201-202) Intermediate German	8	8
GRMN 301-302 (GERM 301-302) Oral and Written Expression I and II	6	6
GRMN 311 and 312 or 318 (GERM 311-313) Intro to German Literature	6	-
GRMN 400 (GERM 403) Intro to Linguistics of German	3	3
GRMN (GERM) literature at 400-level	6	-
Two courses from the following: GRMN 322L, 350, 351H, 352H, 362Y (GERM 361L, 355, 303H, 304H, 362H)	6	-
GERM upper-division electives	3	-
GRMN 351H, 352H, 350, 322L, or 362Y (GERM 303H, 304H, 355, 361L or 362H)	-	3
LING 270S Introduction to Linguistics	3	3
MCLG 410 Methods of Teaching Foreign Languages (coreq. EDU 395 (C&I 301 or 302))	3	3
Total Credits	54	36

**\*The Department of Modern and Classical Languages and Literatures requires a recommendation of the student's language proficiency and an overall minimum grade point average of 3.00 in upper-division course work in both the teaching major and minor as a prerequisite to student teaching. Study in a German language country, provided either through UM's Study Abroad Program or an experience considered to be equivalent also is required.**

**A German major qualifies as a single-field endorsement. Although not required, it is recommended that students complete a second teaching major or minor.**

## Government

**Grades 5-12. Does not qualify as a single field endorsement.**

**For an endorsement in the major teaching field of Government, a student must complete the requirements for the B.A. degree with a major in Political Science (see the Department of Political Science section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of Government, a student must complete the courses for a minor teaching field listed below or demonstrate course equivalency.**

	Maj	Min.
PSCI 210S (PSC 100S) Introduction to American Government	3	3
PSCI 220S (PSC 120S) Introduction to Comparative Government	3	3
PSCI 230X(PSC 130E) International Relations	3	3
PSCI 250E (PSC 150E) Political Theory	3	3
PSCI (PSC) one 300-400 level course in four of the five fields:		
1) American Government		
2) Public Administration		
3) Political Theory		
4) Comparative Government		
5) International Relations	12	-
PSCI (PSC) one 300-400 level course in three of the five fields:		
1) American Government		
2) Public Administration		
3) Political Theory		
4) Comparative Government		
5) International Relations	-	9
PSCI (PSC) electives in upper- division political science	12	-
PSCI 400 Adv Writing in Political Science	1	-
EDU 497 (C&I 428) Methods: 5-12 Social Studies (coreq. C&I 395 (301/302))	3	3
Total Credits	40	24

**The demand for teaching in this field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.**

## Health and Human Performance

**Grades K-12. Qualifies as a single-field endorsement.**

**For an endorsement in the extended major teaching field of Health and Human Performance, a student must complete the requirements for a B.S. in Health and Human Performance with an option in Health Enhancement (see the Department of Health and Human Performance section of this catalog and below). Individuals holding a baccalaureate degree must meet those requirements by completing the courses listed below or demonstrate course equivalency.**

	Maj.
KIN 205 (HHP 181) Foundations and Scientific Fundamentals in Health and Human Performance	3
HEE 110 (HHP 184) Personal Health and Wellness	3
HEE 203-204 (HHP 224-225) Professional Activities I, II	4
KIN 201 (HHP 226) Basic Exercise Prescription	3
HEE 233 (HHP 233) Health Issues of Children and Adolescents	3
NURT 221N (HHP 236) Nutrition	3
AHAT 210-213 (HHP 240-241) Prevention and Care of Athletic Injuries and Lab	3
ECP 120-121 (HHP 288-289) Emergency Medical Responder Lecture and Lab	0-3
HEE 301 (HHP 301) Methods of Secondary HE (coreq. EDU 395 (C&I 301 or 302))	3
HEE 302 (HHP 339) Methods of Instructional Strategies in Elementary Physical Education (coreq. EDU 395 (C&I 301 or 302))	3
KIN 322-323 (HHP 368-369) Kinesiology and Anatomical Kinesiology Laboratory	4
KIN 320 (HHP 377) Exercise Physiology	3
KIN 321 (HHP 378) Exercise Physiology Laboratory	1
KIN 330 (HHP 384) Motor Learning and Control	3
HTH 465 (HHP 465) Leading HHP Organizations	3
HEE 340 (HHP 466) Methods of Health Education	3
HTH 475E (HHP 475E) Legal and Ethical Issues in the Health and Exercise Professions	3
BIOM 250N (BIOL 106N) Microbiology for Health Sciences	3
BIOE 172N (BIOL 121N) Introductory Ecology or SCI 350 Environmental Perspectives	2-3
CHMY 121N (CHEM 151N) Intro to General Chemistry	3
COMX 111A (COMM 111A) Introduction to Public Speaking	3
STAT 216 (MATH 241) Intro to Statistics, PSYX 222 (PSYC 220) or HHP 486	3-4
PSYX 230S (PSYC 240S) Developmental Psychology	3

BIOH 201N-202N & BIOH 211N-212N (SCN 201N-202N) Anatomy and Physiology I and II and Lab  
Total Credits

8  
73-78

**A Health and Human Performance major qualifies as a single-field endorsement. Although not required, it is recommended that students complete a second teaching major or minor.**

#### History

**Grades 5-12. Does not qualify as a single field endorsement.**

**For an endorsement in the major teaching field of History, a student must complete the requirements for the B.A. with a major in History (see the Department of History section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of History a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

	<b>Maj</b>	<b>Min.</b>
HSTR 101H or 102H (HIST 104H or 105H) Western Civilization	4	4
HSTA 101H-102H (HIST 151H-152H) American History I & II	4	8
HSTR 200 Intro to Historical Methods	1	1
HSTA 255 (HIST 269) Montana History	3	3
HSTR (HIST) electives in Asian, Islamic, African, and Latin American	9	6
Upper-division courses in American history	6	3
Upper-division courses in European history	6	3
History electives upper-division courses in history	6	-
HSTA/HSTR 400-level approved writing course	3	-
EDU 497 (C&I 428) Methods: 5-12 Social Studies (coreq EDU 395 (C&I 301 or 302))	3	3
Total Credits	45	31

**The demand for teaching in this field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.**

#### Latin\*

**Grades K-12. Does not qualify as a single field endorsement.**

**For an endorsement in the major teaching field of Latin, a student must complete the requirements for the B.A. with a major in Classics, Latin option, as well as MCLG 410 (see Department of Modern and Classical Languages and Literatures section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of Latin, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

	<b>Maj</b>	<b>Min.</b>
LATN 101-102 (LAT 101-102) Elementary Latin or equivalent	10	10
LATN 201-202 (LAT 211-212) Intermediate Latin	7	7
LATN upper-division electives	15	6
LATN 402 (LAT 402) Advanced Prose Composition	3	3
CLAS 155L (MCLG 155L) Survey Greek & Roman Literature	3	-
CLAS 160L (MCLG 160L) Classical Mythology	3	-
CLAS 251L (MCLG 251L) The Epic or CLAS 252L (MCLG 252L) Greek Drama	3	-
ARTH 407 (ART 381) Roman and Early Christian Art	3	-
Nine credits from: HSTR 301, 302 (HIST 302H, 301H), 360H, or MCLG 320; PHIL 261, or 363 465, 466 (PHIL 251 or 362, 461, 463)	9	-
MCLG 410 Methods of Teaching Foreign Languages (coreq. EDU 395 (C&I 301 or 302))	3	3
HSTR 304H (HIST 303H) Ancient Rome	3	-
Total Credits	62	29

**\*The Department of Modern and Classical Languages and Literatures requires a recommendation of the student's language proficiency and an overall minimum grade point average of 3.00 for upper-division course work in both the teaching major and minor as a prerequisite to student teaching.**

**The demand for teaching in this field is limited. The required second endorsement (either a teaching major or minor) should be in a field in high demand.**

#### Library Media

**Grades K-12. Minor Only.**

	Min.
EDU 331 (C&I 316) Lit & Literacy for Children	3
EDU 432 (C&I 470) Lit & Literacy for Young Adults	3
LIBM 464 (C&I 479) Reference Resources	3
LIBM 463 (C&I 480) Library Collection Development	3
LIBM 465 (C&I 483) Library Media Technical Processes	3
LIBM 468 (C&I 484) Administration and Assessment of Library Media Program	3
LIBM 495 (C&I 485) Library Media Practicum	3
LIBM 466 (C&I 488) Libraries and Technology	3
LIBM 461 Information Literacy	3
Total Credits	27

**A Library Media Practicum is separate from student teaching. It includes 90 hours of field work in a library and 10 hours of seminar. Equivalent courses from UM-Western may substitute. C&I graduate courses also may substitute for EDU 331, 432 (C&I 316, 470), and LIBM 464 (C&I 479).**

#### Mathematics

**Grades 5-12. Qualifies as a single-field endorsement.**

**For an endorsement in the extended major teaching field of Mathematics, a student must complete the requirements for the B.A. degree with a major in Mathematics with a Mathematics Education option (see Department of Mathematical Sciences section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of Mathematics, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

	Maj	Min.
M 171-172 (MATH 152-153) Calculus I, II	8	8
M 221 (MATH 221) Linear Algebra	4	4
M 301 (MATH 301) Mathematics with Technology for Teachers	3	3
M 307 (MATH 305) Introduction to Abstract Mathematics	3	3
M 326 (MATH 326) Elementary Number Theory	3	3
STAT 341 (MATH 341) Introduction to Probability & Statistics	3	3
M 429 (MATH 406) History of Mathematics	3	-
M 431 (MATH 421) Abstract Algebra	4	-
M 439 (MATH 431) Euclidean & Non-Euclidean Geometry	3	3
M 273 (MATH 251) or additional 300-400-level course	3-4	-
EDU 497 (C&I 430) Methods: 5-12 Mathematics (coreq. EDU 395 (C&I 301 or 302))	4	4
Total Credits	41-42	31

**A math major qualifies as a single-field endorsement if a student also completes 12 science credits. Although not required, a second teaching major or minor is recommended.**

#### Music

**Grades K-12. Qualifies as a single-field endorsement.**

**For an endorsement in the extended major teaching field of Music, a student must complete the requirements for a Bachelor of Music Education degree (see the Music section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency. Music Education major are exempt from EDU 370 and 481 as they meet these requirements through School of Music coursework.**

	Maj.
MUSI 102A (MUS 100A) Performance Study	2
MUSI 195-295-395 (MUS 151-251-351) Applied Study I, II, III	5
MUSI 112A/312-108A/308-155A/355-122A/123A, 162A, 267A, 322, 323, 362, 467, MUST 227, 467 (MUS 107A/307A-108A/308A-104A/304A-110A/310A -150A/350) Ensembles	7
MUSI 105-106 (MUS 111-112) Theory I, II	4
MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	2
MUSE 123 (MUS 117A) Techniques: Voice	1
MUSE 120, 121, 126, 127, 272, 273, 274, 275 (MUS 124-131) Techniques	8
MUSI 202L (MUS 135L) Introduction to Music Literature	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	4
MUSI 205-206 (MUS 211-212) Theory III, IV	4
MUSI 235-236 (MUS 215-216) Keyboard Skills III, IV	2
MUSI 296 (MUS 219) Piano Proficiency Assessment	0
MUSI 296 (MUS 220) Upper-Division Required Performance	0

MUSI 240-241 (MUS 237-238) Aural Perception III, IV	4
MUSI 335 (MUS 302) Instrumental Conducting	2
MUSI 336 (MUS 303) Choral Conducting	2
MUSE 497 (MUS 305) Methods: Instrumental & Lit	2
MUSE 497 (MUS 306) Methods: Choral & Lit	2
MUSI 301H-302H (MUS 324H-325H) History of Music I, II	6
MUSE 333-334 (MUS 322-323) General Music Methods and Materials I, II (coreq. EDU 395 (C&I 301 or 302))	4
MUSE 425: Technology and Resource Materials K-12	2
MUSI 388 (MUS 388) Concert Attendance	0
MUSI 440 (MUS 428) Orchestration	2
Music upper-division electives	3-4
Total Credits	71-72

**Music students should refer to the School of Music section of this catalog for requirements concerning upper-division music course work.**

#### Physics

**Grades 5-12. Does not qualify as a single field endorsement.**

**For an endorsement in the major teaching field of Physics, a student must complete the requirements for the B.A. with a major in Physics (see the Department of Physics and Astronomy section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of Physics, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

	Maj.	Min.
PHSX 205N-206N-207N-208N (PHYS 111N-113N-112N-114N) College of Physics I & II & Labs or PHSX 215N-216N-217N-218N (PHYS 211N-213-212N-214N) Fundamentals of Physics with Calculus I & II & Labs	10	10
PHSX 301 (PHYS 301) Intro Theoretical Physics	3	-
PHSX 327 (PHYS 325) Optics	3	3
PHSX 330 (PHYS 330) Communicating Physics	3	3
PHSX 343 (PHYS 341) Modern Physics	3	3
PHSX 320 (PHYS 375) Classical Mechanics	3	3
PHSX 423 (PHYS 414) Electricity & Magnetism I	3	-
PHSX 461 (PHYS 461) Quantum Mechanics I	3	-
PHSX 499 (PHYS 480) Senior Capstone Seminar	1	-
Electives-courses in physics	3	-
ASTR 131N-132N Elementary Astronomy (minors choose one)	6	3
M 171-172 (MATH 152-153) Calculus I and II	8	8
STAT 216 (MATH 241) introduction to Statistics or STAT 341 (MATH 341) Introduction to Probability and Statistics	3-4	3-4
M 273 (MATH 251) Multivariate Calculus	4	4
M 311 (MATH 311) Ordinary Differential Equations	3	3
CSCI 100 (CS 101) Intro to Programming or CSCI 135 (CS 131) Fundamentals of Computer Science I	3	3
EDU 497 (C&I 426) Methods: Science 5-12	3	3
CHMY 121N (CHEM 151N) Intro to General Chemistry	3	3
CHMY 485 (CHEM 485) Laboratory Safety	1	1
BIOB 160N (BIOL 110N) Principles of Living Systems	4/3	4/3
or BIOB 170N (BIOL 108N) Principles Biological Diversity		
or BIOO 105N (BIOL 120N) Introduction to Botany		
or BIOE 172N (BIOL 121N) Introductory Ecology		
GEO 101N-102N (GEOS 100N-101N) Intro to Physical Geology & Laboratory	4	-
GEO 105N (GEOS 105N) Oceanography or GEO 108N (GEOS 108N) (Climate Change or ENSC 105N (EVST 101N) Environ Sci or SCI 350 Environ Perspect	2-3	-
Total Credits	78-81	59-61

**The demand for teaching in this field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.**

#### Psychology

**Grades 5-12. Does not qualify as a single field endorsement.**

**For an endorsement in the major teaching field of Psychology, a student must complete the requirements for the B.A. degree with a major in Psychology, General option (see the Department of Psychology section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For an endorsement in the minor teaching field of Psychology, a student must complete the courses in the minor teaching field listed**

below or demonstrate course equivalency.

	Maj.	Min.
PSYX 100S (PSYC 100S) Introduction to Psychology	4	4
PSYX 120 (PSYC 120) Introduction to Psychological Research	3	3
PSYX 222 (PSYC 220) Psychological Statistics	3	-
At least two of the following for the major:		
PSYX 270S (PSYC 260S) Fundamental Psychology of Learning		
PSYX 280S (PSYC 265S) Fund of Memory & Cognition		
PSYX 250N (PSYC 270N) Fundamentals of Biological Psychology	6	-
At least four of the following for the major:		
PSYX 230S (PSYC 240S) Developmental Psychology		
PSYX 233 (PSYC 245) Fund of Psychology of Aging		
PSYX 340S (PSYC 330S) Abnormal Psychology		
PSYX 360S (PSYC 350S) Social Psychology		
PSYX 385S (PSYC 351S) Psychology of Personality	12	-
At least one of the following for the minor:		
PSYX 230S (PSYC 240S) Developmental Psychology		
PSYX 360S (PSYC 350S) Social Psychology		
PSYX 385S (PSYC 351S) Psychology of Personality	-	3
At least one of the following for the major:		
M 115 (MATH 117) Probability, Linear Mathematics or M 121 (MATH 111) College Algebra		
M 162 (MATH 150) Applied Calculus		
M 171 (Math 152) Calculus I	3-4	-
At least one of the following for the minor:		
PSYX 378S (PSYC 335S) Introduction to Clinical Psychology		
PSYX 340S (PSYC 330S) Abnormal Psychology		
PSYX 345 (PSYC 336) Child and Adolescent Psychological Disorders		
PSYX 376 (PSYC 337) Principles of Cognitive Behavior Modification	-	3
Four other psychology courses (at least three of which must be at the 200-level or higher), not to include PSYX 292, 392, 398, 494, or 499 (PSYC 296, 396, 398, 398, 493 or 499)	12	-
Two of the following for the minor:		
PSYX 270S (PSYC 260S) Fundamental Psychology of Learning		
PSYX 280S (PSYC 265S) Fundamentals of Memory & Cognition		
PSYX 250N (PSYC 270N) Fundamentals of Biological Psychology		
PSYX 356 (PSYC 371) Fundamentals of Human Neuropsychology		
PSYX 352 (PSYC 372) Intermediate Behavioral Biology	-	6
Additional PSYX elective credits for the minor		
	-	3
EDU 497 (C&I 428) Methods: 5-12 Social Studies (coreq. C&I 301 or 302)	3	3
Total Credits	46-47	25

At least six of the 22 PSYX credits for the minor must be at the 300-level or above.

The demand for teaching in this field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.

Reading

Grades K-12. Minor only.

	Min.
EDU 331 (C&I 316) Lit & Literacy for Children	3
EDU 432 (C&I 470) Lit & Literacy for Young Adults	3
EDU 397 (C&I 318) Teaching & Assessing PK-3 Language Arts	3
EDU 497 (C&I 405) Methods: Teaching & Assessing 4-8 Reading	3
EDU 481 (C&I 427) Content Area Literacy	3
EDU 438 (C&I 433) Literacy Asmnt, Diagnosis & Instr	3
EDU 441 (C&I 435) Organizing Reading and Writing Programs	3
EDU 456 (C&I 437) Application of Literacy Models K12	6
Total Credits	27

Russian\*

Grades K-12. Does not qualify as a single field endorsement.

For an endorsement in the major teaching field of Russian, a student must complete the requirements for the B.A. with a major in Russian including MCLG 410 (see the Department of Modern and Classical Languages and Literatures section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.

For an endorsement in the minor teaching field of Russian, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.

	Maj.	Min.
RUSS 101-102 Elementary Russian	10	10
RUSS 201-202 Intermediate Russian	8	8
RUSS/MCLG 105HY Intro Russian Culture	3	-
RUSS 301 Oral and Written Expression I	3	3
RUSS 302 Oral and Written Expression II	3	3
RUSS - two of 308, 312L, 313L (minors must take RUSS 312L)	6	3
RUSS upper-division electives	12	-
RUSS 494 Seminar in Russian	3	-
HSTR – a course in Russian history	3	-
MCLG 410 Methods of Teaching Foreign Languages (coreq. EDU 395 (C&I 301 or 302))	3	3
Total Credits	54	30

\*The Department of Modern and Classical Languages and Literatures requires a recommendation of the student's language proficiency and an overall minimum grade point average of 3.00 in upper-division course work in both the teaching major and minor as a prerequisite to student teaching.

The demand for teaching in the field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.

#### Social Studies Broadfield

Grades 5-12. Qualifies as a single-field endorsement.

Students who want to be licensed to teach history, government, and one additional social science at the middle and high school level must complete the B.A. degree requirements for the combined academic major in history and political science, shown below. Individuals holding a baccalaureate degree must show evidence of completing the courses listed below or demonstrate course equivalency.

	Maj.
HSTR 101H or HSTR 102H (HIST 104H or 105H) Western Civilization	4
HSTA 101H-102H (HIST 151H-152H) American History I & II	8
HSTR 200 Intro to Historical Methods	1
HSTA 255 (HIST 269) Montana History	3
HSTR (HIST) elective in Asian, Islamic, African, or Latin American	3
HSTA (HIST) upper-division American history	3
HSTR (HIST) upper-division European history	3
HSTR or HSTA (HIST) upper-division elective	3
HSTA/HSTR 400-level approved writing course	3
PSCI 210S (PSC 100S) Intro to American Government	3
PSCI 220S (PSC 120S) Intro to Comparative Government	3
PSCI 230X (PSC 130E) Intro to International Relations	3
PSCI 250E (PSC 150E) Intro to Political Theory	3
PSCI (PSC) upper-division American government and politics	9
PSCI (PSC) Upper-division comparative government and/or international relations	9
Credits in one of the following fields: economics, geography, psychology, or sociology	9
EDU 497 (C&I 428) Methods: 5-12 Social Studies (coreq. EDU 395 (C&I 301 or 302))	3
Total Credits	73

#### Sociology

Grades 5-12. Does not qualify as a single field endorsement.

For an endorsement in the major teaching field of Sociology, a student must complete the requirements for the B.A. with a major in Sociology (see the Department of Sociology section of this catalog and below.). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.

For an endorsement in the minor teaching field of Sociology, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.

	Maj.	Min.
SOCI 101S (SOC 110S) Introduction to Sociology	3	3
SOCI 202 (SOC 202) Social Statistics	3	-
SOCI 318 (SOC 201) Sociological Research Methods	3	3
SOCI 455 (SOC 455) Classical Social Theory	3	3
Four of the following, two must be numbered 300 or above:	12	-
SOCI 211S (SOC 230S) Criminology or 330S Juvenile Delinquency		

SOCI 220S (SOC 220S) Race, Gender and Class		
SOCI 270 (SOC 270) Introduction to Development Sociology		
SOCI 275S (SOC 275S) Gender and Society		
SOCI 306 (SOC 306S) Sociology of Work		
SOCI 308 (SOC 308) Sociology of Education		
SOCI 325 (SOC 325) Social Stratification		
SOCI 332 (SOC 300) Sociology of the Family		
SOCI 342 Urban/Metropolitan Sociology		
SOCI 345 (SOC 320) Sociology of Organizations		
SOCI 346 Rural Sociology		
SOCI 350 (SOC 340) The Community		
SOCI 355 (SOC 355S) Population & Society		
SOCI 382 (SOC 350S) Social Psychology & Social Structure		
SOCI 470 Environmental Sociology		
SOCI 485 (SOC 485) Political Sociology		
Sociology electives (minors must take at least six credits numbered 300 or above)	9	12
EDU 497 (C&I 428) Methods: 5-12 Social Studies (coreq. C&I 301 or 302)	3	3
Total Credits	36	24

**The demand for teaching in this field is limited. The required second endorsement (either a teaching major or teaching minor) should be in a field in high demand.**

Spanish\*

**Grades K-12. Qualifies for single-field endorsement.**

**For endorsement in the extended major teaching field of Spanish, a student must complete the requirements for the B.A. with a major in Spanish including SPNS 301, 305, 400, 408 (SPAN 301, 302, 405, 408) and MCLG 410 (see the Department of Modern and Classical Languages and Literatures section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

**For endorsement in the minor teaching field of Spanish, a student must complete the courses in the minor teaching field listed below or demonstrate course equivalency.**

	<b>Maj.</b>	<b>Min.</b>
SPNS 101-102 (SPAN 101-102) Elementary Spanish	10	10
SPNS 201-202 (SPAN 201-202) Intermediate Spanish	8	8
SPNS 301 (SPAN 301) Oral and Written Expression	3	3
SPNS 305 (SPAN 302) Spanish Phonetics	3	3
SPNS 326L, 331X (SPAN 311L/312L) Contemporary Literature (minors take one)	6	3
SPNS 400 (SPAN 405) Spanish: Applied Linguistics	3	3
SPNS 408 (SPAN 408) Advanced Composition and Conversation	3	-
SPNS (SPAN) two literature courses at 400-level	6	-
SPNS upper-division electives	6	-
LING 270S Introduction to Linguistics or LING 470	3	3
MCLG 315 Major Hispanic Authors	3	-
MCLG 410 Methods of Teaching Foreign Languages (coreq. EDU 395 (C&I 301 or 302))	3	3
Total Credits	57	36

**\*The Department of Modern and Classical Languages and Literatures requires a recommendation of the student's language proficiency and an overall minimum grade point average of 3.00 in upper division course work in both the teaching major and minor as a prerequisite to student teaching. Study in a Spanish language country, provided either through UM's Study Abroad Program or an experience considered to be equivalent, also is required.**

**A Spanish major qualifies as a single-field endorsement. Although not required, it is recommended that students complete a second teaching major or minor.**

Special Education

**Grades P-12. Minor only.**

	<b>Min.</b>
EDSP 403 (C&I 420) Curriculum/Methods In Early Childhood Special Education OR elective*	2-3
EDU 438 (C&I 433) Literacy Asmnt, Disagnosis & Instr (coreq. EDU 397 or 481 (C&I 318 or 427))	3
EDSP 462 (C&I 453) Special Education Law, Policy & Practice	3
EDSP 405 (C&I 457) Assess of Students with Exceptionalities	5
EDSP 463 (C&I 459) Consulting/Resource Teacher (prereq. EDSP 462 (C&I 453))	3
EDSP 461 (C&I 463) Positive Behavior Supports (prereq. EDSP 462 (C&I 453))	3
EDSP 497 (C&I 469) Education Methods: Special Education Student Teaching	10



Total Credits

29-30

**\*Required course for early childhood education; counts as elective credit. Other elective courses must be approved by a special education advisor.**

Theatre

**Grades 5-12. Does not qualify as a single field endorsement.**

**For an endorsement in the major teaching field of Theatre, a student must complete the requirements for the B.A. with a major in Theatre, Education Endorsement Preparation specialization (see the School of Theatre & Dance section of this catalog and below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency.**

	<b>Maj.</b>
DANC 346 (DAN 327) Methods: Dance in K-8	2
THTR 102A (DRAM 103A) Introduction to Theatre Design	3
THTR 103 (DRAM 108) Introduction to House Management	1
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1
THTR 107A (DRAM 107A) Theatre Production I: Construction Crew	3
THTR 202 (DRAM 202) Stagecraft I: Lighting/Costumes	3
THTR 203 (DRAM 203) Stagecraft II: Scenery/Props	3
THTR 210 (DRAM 210) Voice and Speech I	2
THTR 220-221 (DRAM 214-215) Acting I, II	6
THTR 235L (DRAM 220L) Dramatic Literature I	3
THTR 249 (DRAM 244) Stage Makeup	2
THTR 330H-331Y (DRAM 320H-321H) Theatre History I, II	6
THTR 339 (DRAM 327) Drama in Elementary Education	2
THTR 370 (DRAM 371) Stage Management I	2
THTR 375 (DRAM 379) Directing I	3
THTR 439 (DRAM 402) Methods of Teaching Theatre	2
THTR 499 (DRAM 499) Senior Project	1
Total Credits	45

**The demand for teaching in this field is limited. The required second endorsement (either a teaching major or teaching minor) should be in a field in high demand.**

### **Courses**

**R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.**

#### **Curriculum and Instruction (C&I) - Course Descriptions**

**160, 195, 295, 296, 298, 341, 394, 395, 421, 498, 501, 502, 504, 506, 508, 510, 514, 515, 518, 519, 520, 521, 523, 524, 525, 526, 527, 530, 533, 540, 541, 542, 545, 546, 548, 552, 553, 555, 556, 557, 560, 570, 571, 580, 581, 582, 583, 584, 585, 588, 589, 590, 594, 595, 596, 597, 598, 618, 620, 625, 630, 652, 594, 697, 699**

#### **Education K-12 (EDU) - Course Descriptions**

**162, 202, 210, 221, 222, 294, 331, 338, 340, 345, 370, 392, 394, 395, 397, 407E, 411, 421, 432, 438, 441, 450, 451, 456, 472, 481, 488, 491, 492, 494, 495, 497**

#### **Early Childhood Education (EDEC) - Course Descriptions**

**310, 330, 396**

#### **Education K-12: Special Education (EDSP) - Course Descriptions**

**403, 405, 461, 462, 463, 470, 497**

#### **Education K-12: Library Media (LIBM) - Course Descriptions**

**463, 464, 465, 466, 468, 495**

### **Faculty**

**Professors**

Trent L. Atkins, Ph.D., University of Oregon, 2003

Lisa M. Blank, Ph.D., Indiana University, 1997

Georgia A. Cobbs, Ph.D., The Ohio State University, 1995

Janice LaBonty, Ph.D., University of Nebraska, 1987

Richard van den Pol, Ph.D., Western Michigan University, 1981

#### Associate Professors

Morgen Alwell, Ph.D., Colorado State University, 2004

Fletcher Brown, Ph.D., Miami University, 1994

David R. Erickson, Ph.D., The Ohio State University, 1994

Ann N. Garfinkle, Ph.D., University of Washington, 1999

Martin G. Horejsi, Ph.D., Idaho State University, 1999

Andrea Lawrence, Ph.D., Indiana University, 2006

Matthew Schertz, Ed.D., Montclair State University, 2004

Sandra R. Williams, Ed.D., the University of Montana, 2000

#### Assistant Professors

Kathryn Brayko, Ph.D., University of Washington, 2012

Jessica R. Gallo, Ph.D., University of Wisconsin, 2013

Lucila T. Rudge, Ph.D., The Ohio State University, 2008

#### Research Faculty

Nancy Arnold, Ph.D., University of Northern Colorado, 1995

Gail McGregor, Ed.D., The Johns Hopkins University, 1984

#### Emeritus Professors

Rhea Ashmore, Ed.D., the University of Montana, 1981

Carolyn J.Lott, Ed.D., the University of Montana, 1985

## College of Education and Human Sciences

Roberta D. Evans, Dean

Susan Harper-Whalen, Associate Dean

The Phyllis J. Washington College of Education and Human Sciences is comprised of five academic departments—Communicative Sciences and Disorders, Counselor Education, Curriculum and Instruction, Educational Leadership, and Health and Human Performance. It is also the home for the Institute for Educational Research and Service (IERS). Its mission is as follows:

The College of Education and Human Sciences shapes professional practices that contribute to the development of human potential. We are individuals in a community of lifelong learners, guided by respect for knowledge, human dignity, and ethical behavior. We work together producing and disseminating knowledge to advance the physical, emotional, and intellectual health of a diverse society.

The College of Education and Human Sciences coordinates The University of Montana Professional Education Unit, a unit comprised of initial teacher preparation at the elementary and secondary levels, and the advanced preparation of teachers, certified speech-language pathologists, educational leaders, school counselors, and school psychologists. The Communicative Sciences and Disorders Department prepares professionals at the master's level in speech-language pathology. The Departments of Curriculum and Instruction, Educational Leadership and Counseling Education prepare professionals for careers in education with bachelor, master's, Education Specialist and Doctor of Education programs while the School Psychology Program, housed in the Psychology Department in the College of Arts and Sciences, prepares students for careers in education with its master's, education specialist, and doctoral degrees. These programs are organized to foster the development of learning communities and incorporate three basic themes: integration of

knowledge and experience; cooperation among participants; and inclusiveness, caring, and respect for others. The Professional Education Unit at The University of Montana is accredited by the National Council for Accreditation of Teacher Education (NCATE), <http://www.ncate.org>.

The Communicative Sciences and Disorders, Counselor Education, and Health and Human Performance Departments all prepare professionals for careers in human service professions. Via its bachelor's degree in Communicative Disorders, the Communicative Sciences and Disorders Department prepares graduates qualified to work as clinical aides in speech-language pathology or audiology. Through its master's program in Speech-Language Pathology, the department will produce professional students qualified to work as speech-language pathologists in schools and clinical settings. Students pursuing the Master of Arts in Counselor Education are prepared to work in a variety of community/agency settings. Upon completion of the program, graduates are prepared to sit for the Licensed Practical Counselor or Licensed Practical Clinical Counselor examination. Via its Bachelor and Master of Science degrees, the Department of Health and Human Performance prepares students in the areas of community health, athletic training, exercise science, and health enhancement. The Athletic Training Program is accredited by the Commission on Accreditation of Athletic Training Education.

Central to its research and outreach efforts with P/K-12 schools, the College of Education and Human Sciences' Institute for Educational Research and Service (IERS) designs, evaluates, and disseminates programs that support the well-being of students and communities. Since 1957, IERS has collaborated with numerous local, state, national, and federal organizations to provide effective, data-driven research models that enhance the social development and academic achievement of all learners. Externally sponsored teaching, research, and service activities are central to IERS. In addition, the College of Education and Human Sciences supports a Preschool Laboratories, Preschool Program, Health and Human Performance Laboratory and Technology Resource Center. These centers offer enhanced opportunities for student involvement and learning.

Specific program options within the College of Education and Human Sciences are described below and in the various departmental sections of this catalog. The Web address for the college is <http://www.coehs.umt.edu>

## Department of Educational Leadership

John Matt, Chairman, Educational Leadership

The Educational Leadership knowledge base emphasizes the realities of the workplace, blending practical tasks with the conceptual models of effective leadership. The model uses leadership assessment and problem-based learning throughout nine curricular strands: change/future, leadership, research community, communication, assessment/program evaluation, management, diversity, curriculum, and professionalism/socialization. Students at both degree levels experience integrated coursework, performance-based assessment, and exit interviews on completion of the degree programs.

Programs: The M.Ed., Ed.S., Administrative Licensure, and Ed.D. are offered in education administration and supervision. Information regarding specific requirements and program options is available from the Phyllis J. Washington College of Education and Human Sciences. For more information, please refer to The University of Montana Graduate Programs and Admissions Catalog. Graduate programs are accredited by The National Council for Accreditation of Teacher Education (NCATE) and The Montana Board of Public Education (BPE).

Admission to Educational Leadership: The Program Admissions Committee has established policies and standards for admission which include the GRE (verbal and quantitative); three letters of recommendation (one from an immediate supervisor); official transcripts for all undergraduate and graduate coursework; qualifying examination; and interviews (doctoral). Contact the Department for details.

Certification Requirements: Education Leadership degree and administrative licensure programs lead to Montana Class 3 Administrative Licensure with either a K-12 Principal or Superintendent endorsement. Please note that in addition to the coursework and degree requirements, the State of Montana also requires licensed teaching, school counseling, or administrative experience for the Class 3 license.

Courses (Check master schedule for availability of all courses)

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Educational Leadership (EDLD) - Course Descriptions

295, 495, 502, 504, 512, 519, 520, 540, 542, 544, 546, 550, 551, 552, 554, 556, 559, 567, 568, 570, 571, 580, 581, 582, 583, 584, 585, 594, 595, 596, 597, 598, 599, 618, 620, 625, 653, 656, 657, 658, 660, 662, 664, 667, 668, 674, 676, 694, 697, 699

### Faculty

#### Professors

Roberta D. Evans, Ed.D., The University of Nevada, Reno, 1988

**Associate Professor**

John Matt, Ed.D., The University of Montana, 1999

William P. McCaw, Ed.D., The University of Montana, 1999

**Assistant Professors**

Francee O'Reilly, Ed.D, Adjunct, The University of Montana, 2002

Patty Kero Ed.D., The University of Montana, 2006

Courtney Stewart Ph.D., Brigham Young University, 2009

**Department of Health and Human Performance**

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Scott Richter, Chair

**Vision**

*Health and Human Performance Professionals*

*Creating a Healthy, Progressive Global Community*

**Mission**

In pursuit of our vision, HHP prepares quality graduates to be ethical and competent entry level professionals in health and human performance related occupations or candidates for advanced study in related disciplines. Within the liberal arts tradition of The University of Montana and the mission of the College of Education and Human Services, the Department of Health and Human Performance (HHP) engages in professional education, scholarly activity, and meaningful public service. The department emphasizes mental, social, spiritual, and physical dimensions of health to promote healthy lifestyle choices and enhance quality of life.

The Health and Human Performance Department has established the following goals in support of our vision and mission:

- . *Promote* an understanding and appreciation for the scope of the profession
- . *Enhance* student awareness of departmental mission and goals
- . *Coordinate* student development of the basic skills germane to effective practice as health and human performance professionals or successful pursuit of advanced studies
- . *Cultivate* higher-order thinking skills that increase students' involvement and interest in their own learning, promoting a lifelong quest for knowledge
- . *Nurture* cognition of the multiple dimensions of health (physical, intellectual, emotional, spiritual, social and environmental)
- . *Advocate* respect for the uniqueness and dignity of others. Undergraduate students choose between two majors: Athletic Training or Health & Human Performance (HHP). HHP majors also choose from one of the following options: Exercise Science; Health Enhancement, or Community Health.

The Exercise Science option has three tracks: Pre-Professional, Applied, and Pre-Athletic Training. The *Pre-Professional track* is designed to provide students with an in-depth science background and prepares students for post-baccalaureate study in exercise physiology and related health sciences such as medical school, physical therapy, physician's assistant or other medical programs. Successful graduates of this option should possess the knowledge and skills to qualify for the ACSM Exercise Specialist Certification (requires additional clinical hours). The Pre-Professional option is for students planning to continue on in higher education. The *Applied track* is designed to prepare students for jobs as strength and conditioning coaches, athletic coaches, personal trainers, elderly services providers, corporate wellness personnel and directors, fitness center directors and other fitness related jobs. Successful graduates of this track should possess the knowledge and skills to qualify for the American College of Sport Medicine-Fitness Instructor and/or National Strength and Conditioning Association Certified Strength and Conditioning Specialist. The *Pre-Athletic Training Track* is designed for students interested in applying for the Entry-Level Master's in Athletic Training Program (see information below).

The Health Enhancement option prepares students to use a variety of educational strategies designed to facilitate the adoption of healthy behaviors in K-12 students. Upon acceptance into the College of Education, and successful completion of the course requirements students will be eligible for a Montana K-12 teaching license. See Admission Policies below.

The Community Health option prepares students with knowledge and skills related to assessing individual and community needs

prior to planning, implementing, and evaluating programs designed to encourage healthy lifestyles and environments. Individuals who will be most successful in the community health option are those who are deeply interested in the interrelationship among all aspects of health (social, emotional, mental, spiritual and physical) and in the life and behavioral sciences. In addition, success in this field requires imagination and creativity in applying scientific knowledge to strategies for individual and community change through a wide range of educational, environmental and political approaches. Graduates of this program will be prepared to take the National Certification Exam for Health Education Specialists.

The Entry-Level Master's in Athletic Training Program major prepares competent entry-level athletic trainers for employment in educational and clinical settings or post-graduate study. The Athletic Training curriculum is designed to help students develop competency in evidence based medicine, prevention and health promotion, clinical examination and diagnosis, acute care of injury and illness, therapeutic interventions, psychosocial strategies and referral, healthcare administration and professional development and responsibility. Successful graduates should possess the knowledge and skills to qualify for the Board of Certification Examination.

The graduate curriculum in Health and Human Performance at The University of Montana prepares post-graduates to become effective health and human performance professionals or competitive candidates for advanced study in related disciplines through a comprehensive program of study and guided research. Development of the following is considered essential in achieving a graduate degree:

1. Oral and written communication skills,
2. An understanding of current research literature in one's chosen specialization and to promote independent pursuit of learning beyond the confines of curricular requirements,
3. Appropriate technological skills,
4. Ability to design, conduct, and report research in a scholarly fashion,
5. Personal characteristics, sense of responsibility, and professional behaviors requisite for effective functioning as an advanced health and human performance professional.

Graduate options include Exercise Science, Health Promotion, Athletic Training, and Health and Human Performance. For more information regarding the department's graduate program refer to either:

The University of Montana Graduate Programs and Admissions catalog: <http://www.umt.edu/grad/>

The College of Education and Human Sciences Graduate website: [http://coehs.umt.edu/departments/hhp/graduate\\_programs/default.php](http://coehs.umt.edu/departments/hhp/graduate_programs/default.php)

### Activity Classes

The HHP department also provides a large activity program (HHP classes numbered 100-179) which includes instruction in a wide variety of individual, team, recreational, and fitness activities. Goals of this program include helping students:

1. Develop and maintain long-term health-related fitness,
2. Develop motor performance skills that facilitate regular and continuous participation in physical activity, and
3. Develop the adult "inner athlete" who continually strives to reach optimal potential through involvement in challenging endeavors.

Any University of Montana student may elect to apply up to four credits from HHP 100-179 toward a baccalaureate degree. For descriptions of the activity classes offered, refer to the website at [http://coehs.umt.edu/departments/hhp/activity\\_classes/default.php](http://coehs.umt.edu/departments/hhp/activity_classes/default.php) and select Activity Classes.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

Students must fulfill the requirements listed below. All HHP majors must earn a minimum grade of a C- in all required courses, including prerequisites, except for special cases of higher requirements in Athletic Training and Health Enhancement noted below. In-department and out-of-department courses specifically listed in this catalog as requirements for Health and Human Performance majors must be taken for a traditional letter grade.

Athletic training students must earn a grade of C (2.00) in all required courses, including prerequisite courses. Courses specifically listed in the catalog, as requirements for the athletic training major (Athletic Training Program) must be taken for a traditional letter grade. This includes in-department and out-of-department courses. Students in the professional phase of the athletic training program who receive less than a C (2.00) on any required courses will be placed on probation and may not be allowed to continue any sequential courses until they retake the course and receive at least a C. If a student receives less than a C (2.00) after repeating a course, the student may be dismissed from the program.

The University of Montana symbolic systems requirement is met by completing one of the following statistics courses and any pre-requisite courses: STAT 216 (MATH 241) Introduction to Statistics or PSYX 222 (PSYC 220) Psychological Statistics or SOCI 202 (SOC 202) Social Statistics or WILD 240 (WBIO 240) Wildlife Monitoring & Biostatistics or EDU 421(C&I 486/HHP 486). All options must meet

this requirement.

#### Admission Policies for Health Enhancement Option

The Health Enhancement option is designed for individuals who wish to teach in K-12 school systems. Application for admission to the College of Education must be made (refer to <http://coehs.umt.edu/departments/hhp/default.php>). Applications are accepted twice a year; however, the number of students admitted into the program is limited. Application is made no sooner than after the completion of 30 hours of course work. A cumulative GPA of 2.75 is necessary for application.

To successfully complete the program in Health Enhancement, a student must receive a grade of C (2.00) or above in every course in the following areas: teaching major, professional education courses, a drug abuse course, PSYX 100S (PSYC 100), WRIT 101 (ENEX 101), and EDU 481 (C&I 427). These courses must be taken as a traditional letter grade.

#### Admission Policies for the Athletic Training Degree

##### Athletic Training Program (ATP)

The University of Montana-Missoula offers an accelerated entry level Master's in Athletic Training program housed within the Health and Human Performance Department. The program meets the standards established by the Commission on Accreditation of Athletic Training Education (CAATE). The current undergraduate Athletic Training Program is accredited by CAATE; however the Master's in Athletic Training Program will undergo review in 2013-2014. The ATP is a demanding curriculum which requires dedication and commitment. Upon completion there are a variety of professional career opportunities.

This program allows students to take three years of pre-requisite courses and general education requirements, followed by 2 years in a professional athletic training program, including summers. Students will apply to the graduate school and the professional program spring of their third year. At the end of the 4th year, students will complete their Bachelor's degree in Health and Human Performance with an option in Exercise Science. Students may enter the entry level Master's in Athletic Training Program 3 different ways:

1. UM students may take 3 years of pre-requisite courses and apply for admission into the graduate program for their final two years (complete Bachelor's degree in 4<sup>th</sup> year, Master's in 5<sup>th</sup> year);
2. Transfer students may take pre-requisite courses elsewhere and transfer into the institution for their final two years of graduate work (complete Bachelor's degree in 4<sup>th</sup> year, Master's in 5<sup>th</sup> year); or
3. Students may elect to complete a Bachelor's degree in a related field (either at UM or elsewhere) and then apply to the Master's in Athletic Training program for 2 years of graduate work.

Upon completion of the entry level Master's in Athletic Training Program, students will be eligible to sit for the Board of Certification (BOC) Exam.

Following are the requirements for application, admission, and retention of the Athletic Training Program (ATP). Academic advisors are available to assist students with this interesting and challenging professional program.

**Admission.** Students who desire admission into the Professional Athletic Training Program must submit a formal application. This application must be submitted by the deadline (February 15<sup>th</sup>) prior to your proposed admission into the professional program.

A review board consisting of the Athletic Training Program Director, Clinical Director, Preceptors, professional students and possibly other professionals, will evaluate each student applying for admission to the professional program. Formal notification of admission to the professional program will be made in writing and sent to the candidate prior to the pre-registration period for autumn semester.

For more information on applying to the professional program, please go to <http://coehs.umt.edu/umat/applications.php>.

#### PRE-PROFESSIONAL REQUIREMENTS

The following pre-requisite classes or their equivalents are required to be completed before admission to the professional program (course syllabi are required if courses are not taken at UM):

Kinesiology/Biomechanics

Anatomy & Physiology I & II (both with labs)

Exercise Physiology

General Psychology

Basic Nutrition

Statistics

Preferred coursework includes: Motor control and learning, chemistry (2 semesters), and prevention and care of athletic injuries

## ADMISSION REQUIREMENTS FOR PROFESSIONAL PROGRAM

1. Students must apply and be accepted to the University of Montana's Graduate School <http://www.umt.edu/grad/Apply/Applying%20for%20Admission.php#Apply>
2. Students must have a minimum GPA of 3.0 for all college coursework (a GPA below 3.0 may be considered)
3. Completed pre-requisite courses (students may be enrolled in pre-requisite courses at time of application)
4. Documentation of 75 hours of observation under a Certified/Licensed Athletic Trainer
5. Official transcript(s) of all college coursework

### Professional-ATEP

As a student in the Athletic Training Program at the University of Montana, students must meet the following retention standards:

Enroll as a full-time student (unless approved by Program Director).

Maintain a cumulative grade point average of 3.0 or higher.

Achieve no more than 2 "C" grades in graduate courses.

Achieve satisfactory evaluations in each Clinical Phase before progressing.

Successfully complete coursework in the sequence indicated by the program of study unless approved by Athletic Training Program Director.

Abide by the Code of Ethics of the University and those established by the National Athletic Trainers' Association.

Students are expected to complete at least 50-250 hours of clinical experience each semester and many of those hours are during evenings and weekends. Students who fail to meet the retention criteria will be placed on probation in the Athletic Training Program for a maximum of two semesters. This may limit progress of course sequencing and clinical phases. If standards are not met by the end of the probationary period, the student will be dismissed from the Athletic Training Program. Students who are placed on probation may require remediation as deemed appropriate by the Program Director.

For further information on clinical education requirements, please visit the athletic training website.

### Additional Costs Associated with Program

There will be additional costs (above tuition and fees) for the clinical rotations. Program fee: There is an additional fee of \$925/semester in addition to regular tuition of fees. This fee will help cover the cost of lab equipment, accreditation costs, adjunct teaching, and software. Other costs may include, but are not limited to: Criminal Background Check (\$55), Initial NATA Membership Fee (\$60 approximately), Polo Shirts (\$30), and Medical Pack/Kit (\$30).

Transportation is needed for all off-campus clinical sites. Each student will have a minimum of one off-campus site.

### General Program Requirements

#### First Aid and CPR Exit Certifications

All Health and Human Performance students are required to have the appropriate certification in first aid/emergency care and CPR at graduation. The following certifications will meet this competency:

Any one of the following current first aid/emergency care certifications:

- . American Academy of Orthopedic Surgeons (AAOS) - Emergency Medical Responder
- . National Safety Council Level - First Responder
- . Wilderness First Responder
- . First Responder - American Heart Association

Plus one of the following CPR certifications:

- . American Heart Association (Health Care Provider)
- . American Red Cross (Professional Rescuer)

Or Certification as an Emergency Medical Technician

Health and Human Performance students may use available elective credits to take HHP 288/289, First Responder and CPR, to meet this competency, or they may elect to fulfill the competency through one of the department approved agencies. Academic credit for HHP 288/289 will not be awarded for certifications earned at off-campus approved agencies other than the Health and Human Performance Department at The University of Montana.

### Upper-division Writing Expectation

The HHP Department offers three upper-division writing courses to fulfill the General Education writing requirements; KIN 447 (HHP 450), HHP 472 and HEE 301 (HHP 301). Exercise Science and Applied Health Science students are required to complete KIN 450 (HHP 450)(Analytical and Communication Techniques), and Health Enhancement Students are required to complete HHP 301 (Instructional Strategies in Secondary Physical Education).

Options Undergraduate students must complete requirements for a minimum of one of the options listed below. The typical student may take more than four years to complete these requirements, especially in the Health Enhancement option.

### Masters in Athletic Training/BS HHP Exercise Science Pre-Athletic Training

Within Department (89 crs.): HHP KIN 205, KIN 201, ECP 120,121, KIN 322, KIN 323, KIN 320, KIN 321, KIN 330, KIN 447, KIN 325, HTH 475, NUTR 221N (HHP 236N), NUTR 411 (HHP 446), AHAT 210, AHAT 213, AHAT 479, CHTH 485, HHP 520, HHP 699/599, ATEP 534, ATEP540, ATEP 541, ATEP 542, ATEP 544, ATEP 546, ATEP 550, ATEP 551, ATEP 566, ATEP 569, ATEP 572, ATEP 574, ATEP 578. Out of Department (53 crs.): WRIT 101, COMM 111A; CHMY 121N, 123N, 124N; BIOH 201N, 202N and BIOH 211, 212 or BIOH 365 and BIOH 370 ; BIOM 250, WRIT 222; M 121 & M122 or M 151; STATS 216, PSYX 222, or EDU 421, PHSX 205N/206N, 207N/208N, PSYX 100S, BIOH 112 or BIOH 113 or BIOH 160.

Exercise Science Option (required courses): Students may complete either of the two tracks below (Applied or Pre-Professional) to complete the requirements for the Exercise Science Option.

Exercise Science Applied Track (required courses): Within Department (55 crs.): KIN 205, HEE 110, KIN 201, AHAT 210, AHAT 213, ECP 120, 121, KIN 322, KIN 323, KIN 320, KIN 321, KIN 330, COA 405, KIN 410, KIN 447, KIN 325, HTH 465, HTH 475, and KIN 498 (4 cr); NUTR 221N (HHP 236N), NUTR 411 (HHP 446). Upper division science credits (may be in or out of department) upon consent of advisor: 3. Out of Department (47 crs.): WRIT 101 (ENEX 101), COMM 111A; CHMY 121N, 123N, 124N (CHEM 151N, 152N, 154N); BIOH 201N, 202N (SCN 201N) and BIOH 211, 212 (SCN 202N) or BIOH 365 and BIOH 370 (BIOL 312-313); WRIT 222 (FOR 220); M 151 (MATH 121); STATS 216 (MATH 241), PSYX 222 (PSYC 220), or EDU 421 (HHP 486), BGEN 105S (MIS/BADM 100S) or BGEN 235 (MIS/BADM 257), PHSX 205N/206N (PHYS 111N/113N), PSYX 100S (PSYC 100S); 6 crs. of electives from HHP, Biology, Biochemistry, Chemistry, Psychology upon consent of advisor. At least 3 credits must be upper division HHP. NOTE: BIOH 112 or 113 or 160 is required prior to BIOH 365-Anatomy & Physiology (A&P) on the UM campus and strongly recommended prior to SCN 201/202-A&P on the Missoula College (formerly COT) campus. The HHP faculty recommend that all students take BIOH 112 or 113 or 160 prior to taking either A&P course (BIOH 365 or SCN 201) as students who neglect to take one of these courses prior to A&P experience a high rate of A&P failure. BIOH 112 or 113 or 160 will count as an HHP science elective.

Exercise Science Pre-professional Track (required courses): Within Department (43 crs.): KIN 205, KIN 201, ECP 120, 121, KIN 322, KIN 323, KIN 320, KIN 321, KIN 330, KIN 447, KIN 325, HTH 475, KIN 460, KIN 483, KIN 484, KIN 498 or KIN 499, NUTR 221N (HHP 236N), NUTR 411 (HHP 446). Upper division science credits (may be in or out of department) upon consent of advisor: 6. Out of Department (50 crs.): WRIT 101 (ENEX 101), COMM 111A; CHMY 121N, 123N, 124N (CHEM 151N, 152N, 154N); BIOH 201N, 202N (SCN 201N) and BIOH 211, 212 (SCN 202N) or BIOH 365 and BIOH 370 (BIOL 312-313); WRIT 222 (FOR 220); M 151 (MATH 121); STATS 216 (MATH 241), PSYX 222 (PSYC 220), or EDU 421 (HHP 486), PHSX 205N/206N, 207N/208N (PHYS 111/113N, 112/114N), PSYX 100S (PSYC 100S); 6 crs. of electives from biology, biochemistry, mathematics, physics, psychology upon consent of advisor.

Community Health Option (required courses): Within Department (46 crs.): KIN 201, KIN 205, HTH 110, ECP 120/121 or appropriate certification, CHTH 335, HTH 370, HTH 395, HTH 430, KIN 447, HTH 465, HTH 475E, CHTH 485, CHTH 445, 4 crs of CHTH 498, NUTR 211N (HHP 236N). Out of department (41 crs.): COMM 111A; PSYX 100S (PSYC 100); CHMY 121N (CHEM 151N); BIOM 250N (BIOL 106N); ENST 225 (EVST 225); BIOH 201N, 202N (SCN 201N) and BIOH 211, 212 (SCN 202N) or BIOH 365 and BIOH 370 (BIOL 312-313); ANTY 227 (ANTH 201); M 115 (MATH 117); WRIT 222 (FOR 220); SW 423; ANTY 426 (ANTH 444); STATS 216 (MATH 241), PSYX 222 (PSYC 220), or EDU 421 (HHP 486). Elective courses - 18-24 crs. of in or out of department electives to be approved by academic advisor. (note: at least 9 of the 24 elective credits must be at the 300 level or higher and students may not count more than 60 HHP credits toward graduation.)

Health Enhancement Option (required courses): Within Department (51-54 crs.): KIN 205, HEE 110, HEE 203, HEE 204, KIN 201, HEE 233, AHAT 210, AHAT 213, ECP 120, 121 or appropriate certification, HEE 301, HEE 302, KIN 322, KIN 323, KIN 320, KIN 321, KIN 330, HTH 465, HEE 340, HTH 475, NUTR 221N (HHP 236N). Out of Department (71-73 crs.): COMM 111A; CHMY 121N (CHEM 151N), BIOH 201N, 202N (SCN 201N) and BIOH 211, 212 (SCN 202N); BIOM 250N, BIOE 172N (BIOL 106N; BIOL 121N) or SCN 350; M 115 (MATH 117) PSYX 100S (PSYC 100S), PSYX 230S (PSYC 240S); EDU 202 (C&I 200), 221 (C&I 303), 345 (C&I 410), 370 (C&I 306), 395 (C&I 301 or 302), 407E (C&I 407E), 481 (C&I 427), 494 (C&I 494), 495 (C&I 481), 495 (482); STAT 216 (MATH 241), PSYX 222 (PSYC 220), or EDU 421 (HHP 486); NASX requirement.

### Suggested Course of Study

Accelerated Athletic Training Degree (Masters in Athletic Training/BS HHP Exercise Science):

First Year

A S



WRIT 101 (ENEX 101) College Writing I (autumn A-L, spring M-Z)	(3)	(3)	
CHMY 121N (CHEM 151N) Intro to General Chemistry	3	-	
KIN 201 (HHP 226) Basic Exercise Prescription (autumn M-Z, spring A-L)	(3)	(3)	
KIN 205 (HHP 181) Foundations of Health and Human Performance (autumn A-L, spring M-Z)	(3)	(3)	
NUTR 221N (HHP 236) Nutrition	(3)	(3)	
COMX 111A (COMM 111A) Introduction to Public Speaking (autumn M-Z, spring A-L)	(3)	(3)	
CHMY 123N (CHEM 152N) Introduction to Organic and Biochemistry	-	3	
M 121 or M 151 (MATH 111 or 121) College Algebra or Pre-Calculus	4/3	-	
BIOH 112 or 113 (BIOL 112 or 113) Introduction to Human Form and Function I or II or BIOB 160N (BIOL 110N) Principles of Living Systems	3	-	
M 122 (MATH 112) College Trigonometry or General Education Requirements L,H,Y or X courses	-	3	
<b>Total</b>	<b>15-</b>	<b>17</b>	
	<b>16</b>		
		<b>A</b>	<b>S</b>
<b>Second Year</b>			
BIOH 201N/202N (SCN 201N) Human Anatomy and Physiology I or BIOH 365 (BIOL 312) Human Anatomy and Physiology I for Health Professions (students who take BIOH 365-370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	4	-	
WRIT 222 (FOR 220) Technical Writing	2	-	
PSYX 100S (PSYC 100S) Introduction to Psychology	4	-	
KIN 330 (HHP 384) Motor Learning and Control	-	3	
EDU 421 (HHP 486) Statistical Procedures in Education or PSYX 222 (PSYC 220) Psychological Statistics or STAT 216 (MATH 241) Introduction to Statistics	-	3/4	
BIOH 211N/212N (SCN 202N) Human Anatomy and Physiology II or BIOH 370 (BIOL 313), Human Anatomy and Physiology II for Health Professions (students who take BIOH 365/370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	-	4	
General Education Requirements (Select only from L,H,Y or X general education perspectives as needed)	6	6	
<b>Total</b>	<b>16</b>	<b>16-</b>	
	<b>17</b>		
		<b>A</b>	<b>S</b>
<b>Third Year</b>			
KIN 322/323 (HHP 368/369) Kinesiology & Anatomical Kinesiology Lab	4	-	
KIN 320/321 (HHP 377/378) Exercise Physiology & Lab	4	-	
PHSX 205N/206N (PHYS 111N/113N) Fundamentals of Physics I	5	-	
ECP 120/121 (HHP 288/289) Emergency Medical Responder Lecture and Lab	-	3	
AHAT 201/213 (HHP 240/241) Prevention and Care of Athletic Injuries & Lab	3	-	
PHSX 207N/208N (PHYS 112N/114N) Fundamentals of Physics II	-	5	
PHAR 110N Use & Abuse of Drugs	-	3	
KIN 325 (HHP 460) Biomechanics	-	3	
HTH 475E (HHP 475E) Legal & Ethical Issues in Health and Exercise Professions	-	3	
<b>Total</b>	<b>16</b>	<b>17</b>	
<b>Submit Application to the Professional Program by February 15<sup>th</sup> as well as to the UM Graduate School</b>			
<b>Fourth Year - Summer</b>			
ATEP 534 Athletic Training Techniques	3		
ATEP 566 Therapeutic Modalities	3		
<b>Total</b>	<b>6</b>		
		<b>A</b>	<b>S</b>
<b>Fourth Year</b>			
ATEP 542 Assessment of Lower Extremities	3	-	
KIN 447 (HHP 450) Analytical and Communication Techniques	4	-	
ATEP 540 Clinical Practicum in Athletic Training I	3	-	
ATEP 569 Clinical Anatomy Lab	1	-	
HHP 520 Educational Research	3	-	
NUTR 411 Nutrition for Sport & Exercise	-	3	
ATEP 572 Therapeutic Exercise	-	3	
ATEP 544 Assessment of Upper Extremities	-	3	
ATEP 541 Clinical Practicum in Athletic Training II	-	3	
CHTH 485 (HHP 485) Theories of Health Behavior & Counseling	-	3	
<b>Total</b>	<b>13</b>	<b>15</b>	
<b>Fifth Year - Summer</b>			
ATEP 574 Manual Therapy Techniques	3		
ATEP 546 Assessment of Thorax and General Medical Conditions	3		
<b>Total</b>	<b>6</b>		
		<b>A</b>	<b>S</b>
<b>Fifth Year</b>			
HHP 699/599 Thesis/Professional Paper	3	3	
ATEP 550 Adv. Clinical Practicum in Athletic Training I	3	-	
ATEP 578 Leadership in Athletic Training	3	-	
Elective (non-thesis option)	3	3	
AHAT 479 (HHP 479) Topics in Sports Medicine	-	2	
ATEP 551 Adv. Clinical Practicum in Athletic Training II	-	3	
Elective (in or out of department)	-	3	
<b>Total</b>	<b>9</b>	<b>11</b>	

**Exercise Science Pre-Professional Track:**

<b>First Year</b>		<b>S</b>
WRIT 101 (ENEX 101) College Writing I (autumn A-L, spring M-Z)	(3)	(3)
CHMY 121N (CHEM 151N) Intro to General Chemistry	3	-
KIN 201 (HHP 226) Basic Exercise Prescription (autumn M-Z, spring A-L)	(3)	(3)
KIN 205 (HHP 181) Foundations of Health and Human Performance (autumn A-L, spring M-Z)	(3)	(3)
NUTR 221N (HHP 236) Nutrition	-	3
COMX 111A (COMM 111A) Introduction to Public Speaking (autumn M-Z, spring A-L)	(3)	(3)
CHMY 123N/124N (CHEM 152N/154N) Introduction to Organic and Biochemistry & Lab	-	5
M 121 or M 151 (MATH 111 or 121) College Algebra or Pre-Calculus	4/3	-
BIOH 112 or 113 (BIOL 112 or 113) Introduction to Human Form and Function I or II or BIOB 160N (BIOL 110N) Principles of Living Systems	3	-
M 122 (MATH 112) College Trigonometry or General Education Requirements L,H,Y or X courses	-	3
Total	15-	17
	16	17
<b>Second Year</b>		<b>A S</b>
BIOH 201N/202N (SCN 201N) Human Anatomy and Physiology I or BIOH 365 (BIOL 312) Human Anatomy and Physiology I for Health Professions (students who take BIOH 365-370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	4	-
WRIT 222 (FOR 220) Technical Writing	2	-
PSYX 100S (PSYC 100S) Introduction to Psychology	4	-
KIN 330 (HHP 384) Motor Learning and Control	-	3
EDU 421 (HHP 486) Statistical Procedures in Education or PSYX 222 (PSYC 220) Psychological Statistics or STAT 216 (MATH 241) Introduction to Statistics	-	3/4
BIOH 211N/212N (SCN 202N) Human Anatomy and Physiology II or BIOH 370 (BIOL 313), Human Anatomy and Physiology II for Health Professions (students who take BIOH 365/370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	-	4
General Education L, H, Y or X courses	6	6
Total	16	16-
	16	17
<b>Third Year</b>		<b>A S</b>
KIN 322/323 (HHP 368/369) Kinesiology & Anatomical Kinesiology Lab	4	-
KIN 320/321 (HHP 377/378) Exercise Physiology & Lab	4	-
PHSX 205N/206N (PHYS 111N/113N) Fundamentals of Physics I	5	-
ECP 120/121 (HHP 288/289) Emergency Medical Responder Lecture and Lab	-	3
KIN 483/484 (HHP 483/484) Exercise, Disease and Aging and Lab	-	4
PHSX 207N/208N (PHYS 112N/114N) Fundamentals of Physics II	-	5
KIN 460 (HHP 482) ECG Assessment	1	-
KIN 325 (HHP 460) Biomechanics	-	3
Total	14	15
<b>Fourth Year</b>		<b>A S</b>
NUTR 411 (HHP 446) Nutrition for Sports & Exercise	3	-
KIN 447 (HHP 450) Analytical and Communication Techniques	4	-
KIN 498 or 499 (HHP 498 or 499) Internship or Senior Project	-	3
HTH 475E (HHP 475E) Legal and Ethical Issues in Health and Exercise Professions	3	-
HHP/Science Elect Upper-division science or Upper-division HHP elective	-	6
Upper-division science elective	3	3
Total	13	12

**Exercise Science - Applied Track**

<b>First Year</b>		<b>A S</b>
COMX 111A (COMM 111A) Introduction to Public Speaking (autumn M-Z, spring A-L)	(3)	(3)
BIOH 112 (BIOL 112) Introduction to Human Form and Function I or BIOB 160N (BIOL 110N) Principles of Living Systems	3	-
CHMY 121N (CHEM 151N) Introduction to General Chemistry	3	-
WRIT 101 (ENEX 101) College Writing I (autumn A-L, spring M-Z)	(3)	(3)
KIN 205 (HHP 181) Foundations and Scientific Fundamentals in HHP (autumn A-L, spring M-Z)	(3)	(3)
HEE 110 (HHP 184) Personal Health and Wellness (Last names A-L)	-	3
CHMY 123N/124N (CHEM 152N/154N) Organic and Biochemistry & Lab	-	5
KIN 201 (HHP 226) Basic Exercise Prescription (autumn M-Z, spring A-L)	(3)	(3)
M 121 (MATH 111) or 151 (MATH 121) College Algebra or Pre-calculus	3-4	-
WRIT 222 (FOR 220) Technical Writing (Last names M-Z)	-	3
M 122 (MATH 112) College Trigonometry or General Education Requirements L,H,Y or X courses	-	3
Total	15-	17
	16	17
<b>Second Year</b>		<b>A S</b>
BIOH 201N/202N (SCN 201N) Human Anatomy and Physiology I or BIOH 365 (BIOL 312) Human Anatomy and Physiology I for Health Professions (students who take BIOH 365-370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	4	-
WRIT 222 Technical Writing (last names A-L)	2	-

HEE 110 (HHP 184) Personal Health and Wellness (last names M-Z)	3	-
NUTR 221N (HHP 236) Basic Human Nutrition	3	-
BGEN 105S (MIS/BADM 100S) Introduction to Business or BGEN 235 (MIS 257) Business Law	3	-
PSYX 100S (PSYC 100S) Introduction to Psychology	-	4
BIOH 211N/212N (SCN 202N) Human Anatomy and Physiology II or BIOH 370 (BIOL 313), Human Anatomy and Physiology II for Health Professions (students who take BIOH 365/370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	-	4
EDU 421 (HHP 486) Statistical Procedures in Education or PSYX 222 (PSYC 220) Psychological Statistics or STAT 216 (MATH 241) Introduction to Statistics	-	3/4
General Education L, H, Y or X courses or other elective	3	3
<b>Total</b>	15-	14-16
	<b>16</b>	<b>15</b>
	<b>A</b>	<b>S</b>
<b>Third Year</b>		
AHAT 210/213 (HHP 240/241) Prevention and Care of Athletic Injuries & Lab	3	-
KIN 330 (HHP 384) Motor Learning and Control	-	3
BGEN 235 (MIS/BADM 257) Business Law	3	-
PHSX 205/206 (PHYS 111N/113N) College Physics I	5	-
Science Elect Lower-division elective	3	-
KIN 310 (HHP 295) Strength Training Methods	2	-
KIN 320/321 (HHP 377/378) Physiology of Exercise & Lab	-	4
KIN 410 (HHP 435) Adv. Strength Training & Cond.	-	3
HTH 465 (HHP 465) Leading Health and Human Performance Organizations	-	3
Gen. Ed. as needed or Lower Division Elective	-	3
Gen Ed/Science Elect L, H, Y or X courses as needed	-	3
<b>Total</b>	13	19
	<b>16</b>	<b>15</b>
	<b>A</b>	<b>S</b>
<b>Fourth Year</b>		
ECP 120/121 (HHP 288/289) Emergency Medical Responder Lecture and Lab	3	-
KIN 322/323 (HHP 368/369) Kinesiology and Anatomical Kinesiology Lab	4	-
HTH 475E (HHP 475E) Legal and Ethical Issues in the Health and Exercise Professions	3	-
COA 405 (HHP 417) Advanced Concepts in Coaching	3	-
NUTR 411 (HHP 446) Nutrition for Sports & Exercise	-	3
KIN 447 (HHP 450) Analytical and Communication Techniques	-	3
KIN 325 (HHP 460) Biomechanics	-	3
KIN 498 (HHP 498) Internship	-	3
Lower Division Elective (as needed for total credits)	3	-
Upper-division science elective	-	3
<b>Total</b>	16	15
<b>Community Health:</b>		
<b>First Year</b>		
COMX 111A (COMM 111A) Introduction to Public Speaking (autumn M-Z, spring A-L)	(3)	(3)
WRIT 101 (ENEX 101) College Writing I (autumn A-L, spring M-Z)	(3)	(3)
PSYX 100S (PSYC 100S) Introduction to Psychology	4	-
KIN 205 (HHP 181) Foundations and Scientific Fundamentals in HHP (autumn A-L, spring M-Z)	(3)	(3)
HEE 110 (HHP 184) Personal Health and Wellness (autumn M-Z, spring A-L)	(3)	(3)
BIOH 112 (BIOL 112) Introduction to Human Form and Function I or BIOB 160N (BIOL 110N) Principles of Living Systems	-	4
CHMY 121N (CHEM 151N) Intro to General Chemistry	-	3
NUTR 221N (HHP 226) Basic Human Nutrition	-	3
M 115 (MATH 117) Probability and Linear Math	3	-
General Education L, H, Y or x courses	3	-
<b>Total</b>	16	16
	<b>16</b>	<b>16</b>
	<b>A</b>	<b>S</b>
<b>Second Year</b>		
BIOH 201N/202N (SCN 201N) Human Anatomy and Physiology I or BIOH 365 (BIOL 312) Human Anatomy and Physiology I for Health Professions (students who take BIOH 365-370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	4	-
ENST 225 (EVST 225) Community and Environment	3	-
WRIT 222 (FOR 220) Technical Writing	2	-
KIN 201 (HHP 226) Basic Exercise Prescription	-	3
EDU 421 (HHP 486) Statistical Procedures in Education or PSYX 222 (PSYC 220) Psychological Statistics or STAT 216 (MATH 241) Introduction to Statistics	-	3/4
BIOH 211N/212N (SCN 202N) Human Anatomy and Physiology II or BIOH 370 (BIOL 313), Human Anatomy and Physiology II for Health Professions (students who take BIOH 365/370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	-	4
General Education Requirements L, H, Y or X courses or elective - approved by adviser	-	3
General Education Requirements L, H, Y or X courses	6	3
<b>Total</b>	15	16-17
	<b>15</b>	<b>17</b>
	<b>A</b>	<b>S</b>
<b>Third Year</b>		
CHTH 355 (HHP 330) Theory Pract Comm Hlth Ed	3	-
KIN 447 (HHP 450) Analytical and Communication Techniques	3	-

ANTY 227 (BIOL 265) Human Sexuality	3	-
Elective - choice approved by adviser	3	-
General Education - L, H, Y or X course approved by adviser	3	-
HTH 370 (HHP 370) Peer Health Education	-	3
HTH 465 (HHP 465) Leading Health and Human Performance Organizations	-	3
HTH 475E (HHP 475E) Legal and Ethical Issues in the Health and Exercise Professions	-	3
BIOM 250N (BIOL 106N) Microbiology for Health Sciences	-	3
SW 423 Addition Studies	-	3
Total	15	15
<b>Fourth Year</b>		
ECP 120/121 (HHP 288/289) Emergency Medical Responder Lecture and Lab	3	-
HTH 395 (HHP 371) Peer Health Education Practicum	1-3	-
HTH 430 (HHP 415) Health and Mind, Body, Spirit	3	-
ANTY 426 (ANTH 444) Culture, Health and Healing	3	-
General Education - L, H, Y or X course or Elective	3	-
Electives - General Education, HHP or out-of-department electives approved by adviser	-	5
CHTH 498 (HHP 498) Internship	-	4
HHP 445 Program Planning for Community Health	-	3
CHTH 485 (HHP 485) Theories of Health Behavior and Counseling	-	3
Total	13-	15
	15	

**Health Enhancement Option:**

<b>First Year</b>		
WRIT 101 (ENEX 101) College Writing I (autumn A-L, spring M-Z)	(3)	(3)
KIN 205 (HHP 181) Foundations and Scientific Fundamentals in HHP (autumn A-L, spring M-Z)	(3)	(3)
NASX 105H (NAS 100) Introduction to Native American Studies	3	-
M 115 (MATH 117) Probability and Linear Math	3	-
PSYX 100S (PSYC 100S) Introduction to Psychology	4	-
HHP 224 Professional Activities-Outdoor Rec	2	-
CHMY 121N (CHEM 151N) General and Inorganic Chemistry	-	3
NUTR 221N (HHP 236N) Basic Human Nutrition	-	3
COMX 111A (COMM 111A) Intro to Public Speaking (autumn M-Z, spring A-L)	(3)	(3)
BIOM 250N (BIOL 106) Elementary Medical Microbiology	-	3
HEE 110 (HHP 184) Personal Health and Wellness (autumn M-Z, spring A-L)	(3)	(3)
HEE 204 (HHP 225) Professional Activities II - Individual/Teal/Dual	-	2
Total	16	17
<b>Second Year</b>		
HEE 203 (HHP 224) Professional Activities I - Outdoor Rec	2	-
BIOE 172N (BIOL 121N) Introductory Ecology or SCI 350 General Science: Environmental Perspectives	2-3	-
KIN 201 (HHP 226) Basic Exercise Prescription	3	-
HEE 233 (HHP 233) Health Issues/Child & Adolescent	3	-
AHAT 210/213 (HHP 240/241) Prevention and Care of Athletic Injuries & Lab	3	-
BIOH 201N/202N (SCN 201N) Human Anatomy and Physiology I or BIOH 365 (BIOL 312) Human Anatomy and Physiology I for Health Professions (students who take BIOH 365-370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	4	-
BIOH 211N/212N (SCN 202N) Human Anatomy and Physiology II or BIOH 370 (BIOL 313), Human Anatomy and Physiology II for Health Professions (students who take BIOH 365/370 (BIOL 312/313) must take another "NL" course, e.g. CHMY 124N (CHEM 154N) to meet Gen Ed requirements)	-	4
EDU 202 (C&I 200) Early Field Experience	-	1
EDU 395 (C&I 301 or 302) Field Experience: Grades 5-8 or Grades 9-12	-	1
PSYX 230S (PSYC 240S) Developmental Psychology	-	3
WRIT 222 (FOR 220) Technical Approach to Writing	-	2
General Education L & Y courses	-	3
Total	17-	18
	18	14
<b>Third Year</b>		
EDU 481 (C&I 427) Content Area Literacy	3	-
HEE 302 (HHP 339) Methods of Instruction Strategies in Elementary Physical Education	3	-
KIN 322/323 (HHP 368/369) Kinesiology and Anatomical Kinesiology Lab	4	-
HTH 475E (HHP 475E) Legal and Ethical Issues in Health and Exercise Professions	3	-
EDU 421 (HHP 486) Statistical Procedures in Education or PSYX 222 (PSYC 220) Psychological Statistics or STAT 216 (MATH 241) Introduction to Statistics	3/4	-
KIN 320/321 (HHP 377/378) Exercise Physiology and Lab	-	4
EDU 370 (C&I 306) IntegTech into Educ	-	3
HEE 301 (HHP 301) Methods of Secondary School Physical Education	-	3
KIN 330 (HHP 384) Motor Learning and Control	-	3
HEE 340 (HHP 466) Methods of Health Education	-	3
Total	19-	16
	19-	16

<b>Fourth Year</b>	<b>A S</b>
EDU 221 (C&I 303) Education Psychology and Measurement	3 -
EDU 407E (C&I 407E) Ethics and Policy Issues	3 -
EDU 345 (C&I 410) Exceptionality/Classroom Management	3 -
ECP 120/121 (HHP 288/289) Emergency Medical Responder Lecture and Lab	3 -
HTH 465 (HHP 465) Leading HHP Organizations	3 -
EDU 494 (C&I 494) Seminar/Workshop	- 1
EDU 495 (C&I 481) Student Teaching: K-8	- 7
EDU 495 (C&I 482) Student Teaching 5-12	- 7
Total	15 15

### **Courses**

**R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.**

#### **Activities (ACT) - Course Descriptions**

**101, 103, 105, 106, 107, 109, 110, 111, 113, 114, 115, 118, 119, 136, 140, 143, 144, 145, 146, 150, 151, 152, 154, 157, 163, 164, 167, 169, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 185, 186, 191, 207, 214, 218, 219, 222, 225, 228, 229, 231, 232, 233, 234, 235, 237, 250, 251, 257, 258, 259, 271, 274, 286, 287, 291, 337, 391, 491, 494**

#### **Activities - Varsity (ACTV) - Course Descriptions**

**189**

#### **Allied Health - Athletic Training (AHAT) - Course Descriptions**

**210, 213, 292, 295, 305, 322, 323, 324, 325, 336, 337, 340, 341, 342, 343, 411, 412, 421, 422, 468, 479, 490, 492, 498**

#### **Athletic Training Education (Master's) (ATEP) Course Descriptions**

**534, 540, 541, 542, 544, 546, 550, 551, 566, 569, 572, 574, 578**

#### **Coaching (COA) - Course Descriptions**

**205, 405, 494**

#### **Community Health (CHTH) - Course Descriptions**

**292, 355, 435, 445, 485, 490, 492, 498**

#### **Emergency Care Provider (ECP) - Course Descriptions**

**100, 101, 102, 120, 121, 122, 331, 332**

#### **Health (HTH) - Course Descriptions**

**292, 370, 395, 430, 465, 475E, 481, 492, 498**

#### **Health Enhancement (HEE) - Course Descriptions**

**110, 203, 204, 233, 292, 301, 302, 340, 490, 492, 498**

#### **Kinesiology (KIN) - Course Descriptions**

**201, 205, 248, 292, 310, 320, 321, 322, 323, 325, 330, 410, 440, 447, 460, 480, 483, 484, 490, 492, 498, 499**

#### **Nutrition (NUTR) - Course Descriptions**

**221N, 411**

### **Faculty**

#### **Professors**

**Gene Burns, Ed.D., The University of Montana, 1988**

**Laura Dybdal, Ph.D., University of New Mexico, 1996**

Steven Gaskill, Ph.D., University of Minnesota, 1998

Arthur W. Miller, Ph.D., University of New Mexico, 1981

Brent Ruby, Ph.D., University of New Mexico, 1994

K. Ann Sondag, Ph.D., Southern Illinois, Carbondale, 1988

Charles Dumke, Ph.D., University of Wisconsin, 2000

#### Associate Professors

Blakely Brown, Ph.D., R.D., University of Minnesota, 2000

Valerie Moody, Ph.D., ATC, CSCS, University of South Florida, 2006 (Director of Athletic Training Program)

Charles Palmer, Ed.D., University of Montana, 2002

Scott Richter, Ed.M., Oregon State University, 1982 (Chair, Athletic Training Program Faculty)

#### Assistant Professor

Dennis T. Murphy, M.S., University of Arizona, 1976 (Head Athletic Trainer)

#### Instructors

Adrienne M. Corti, M.S., The University of Montana, 1989

Stephanie Domitrovich, M.S., The University of Montana

Linda Green, B.S., Florida State University, 1976

Karla Judge, M.S., ATC, Idaho State University 1991

Ellen Parchen, B.S., West Chester University, 1994

J. C. Weida, M.S., ATC, The University of Montana, 1995

#### Emeritus Professors

Kathleen Miller, Ph.D., University of Iowa, 1971

Gary Nygaard, EdD., University of Oregon, 1971

Brian J. Sharkey, Ph.D., University of Maryland, 1965

Thomas R. Whiddon, Ed.D., The University of Montana, 1975

Sharon Dinkel Uhlig, Ed.D., University of Utah, 1982

#### Emeritus Associate Professors

George Cross, M.S., Indiana University, 1956

Mavis M. Lorenz, M.S., University of Washington, Seattle, 1954

## Intercultural Youth and Family Development

Rita Sommers-Flanagan (Professor of Counselor Education), Director

Housed in the Department of Counselor Education, this interdisciplinary master's degree program is designed for students who wish to engage in culturally-relevant volunteer work or paid employment in the realm of child and family assistance. It is affiliated with the United States Peace Corps as a partner school for their master's international program. Requirements include one year of full-time instruction at UM, a significant period of time engaging in internship work in an applied intercultural setting, and a final professional paper or thesis. Internships will typically be 1-2 years and will involve work in a culture other than one's own. Students participating in this program are expected to gain the following background and competencies:

- important interculturally-informed helping skills for working with youth, women, families and communities in culture other than their own

- . a solid background in issues, concerns, and critiques regarding assistance and interventions across culture, both historically and currently
- . opportunity to pursue and participate in a significant field experience, working with an established helping agency in another culture or country.

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Intercultural Youth and Family Development (IYFD) - Course Descriptions

495, 501, 502, 510, 520, 595, 596, 598, 599, 695, 698, 699

#### Faculty

Lindsey Nichols, Ph.D., The Pennsylvania State University, 2012

John Sommers-Flanagan, Ph.D., The University of Montana, 1986

Catherine Jenni, Ph.D., Saybrook Institute

Otto Koester, M.A., The University of Wisconsin, 1974

Rita Sommers-Flanagan, Ph.D., The University of Montana, 1989

Kirsten Murray, Ph.D., Idaho State University, 2007

### School of Art

- . Special Degree Requirements
- . Suggested Course of Study
- . Courses
- . Faculty

Julia Galloway, Director

The School of Art provides a comprehensive education in studio art, including intensive hands-on studio practice, art history, criticism, and theory. Programs provide thorough professional training for students interested in careers in the field of art.

Degree offerings include the B.A., B.F.A., M.A., and M.F.A. in Art. Areas of specialization are Ceramics, Drawing, Painting, Photography, Printmaking and Sculpture. An M.A. degree in Studio Art and/or Art History is also offered, as well as courses that prepare students for licensure for teaching art.

#### Advanced Placement Policy

All students, including those who have taken AP examinations, must submit a portfolio to challenge art classes. Undergraduate students may challenge foundations courses only (ARTZ 105A (ART 101A), Visual Language-Drawing; ARTZ 106A (ART 102A), Visual Language-2-D Fndtns; and ARTZ 108A (ART 103A), Visual Language-3-D Fndtns).

Portfolios are reviewed at the beginning of each semester. The challenge process waives the requirement to take a specific class, but does not provide any credits. The process of portfolio reviews is as follows: students submit a portfolio of ten .jpeg files or pieces of actual work to the school office two weeks prior to the beginning of the semester. If challenging more than one course, students submit examples of work for each course, for example: ten drawing samples for ARTZ 105A (ART 101A), ten color works for ARTZ 106A (ART 102A), and/or ten 3-D pieces for ARTZ 108A (ART 103A).

#### Transfer Students

Students with transfer credits from another institution must contact the school director for review of transfer transcripts to assess course equivalents.

#### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

Students pursuing Bachelor of Fine Arts or Bachelor of Arts degrees with a major in Art must earn a "C" (2.00 on a 4.00 scale) grade or better in all Art courses fulfilling requirements in order to graduate.

### Bachelor of Fine Arts Review Process

All students initially enter as Bachelor of Arts (B.A.) candidates. Students interested in earning the Bachelor of Fine Arts Degree (B.F.A.) must comply with following:

1. Must have and maintain a 3.0 grade point average in Art and a 2.5 overall GPA.
2. Students apply for the B.F.A. program once they have completed 33-45 Art credits. B.F.A. portfolio reviews take place once each semester. A transfer student who enters with more than 45 earned credits must be reviewed the first semester of their residency.
3. The following course selections are review prerequisites: ARTH 200H, 201H (ART 150H, 151H), ARTZ 105A, 106A, 108A (101A, 102A, 103A), four 200-level studio courses, and two 300-level studio courses.
4. Should a student not be admitted to the B.F.A. program in their first application, a second and final application the following semester is encouraged.
5. Applications for the B.F.A. program must include: the application form with the area faculty signature, statement of purpose, and portfolio. Applications are reviewed each semester prior to registration. Incomplete or late applications will not be considered.

### Bachelor of Fine Arts with a major in Art

For the Bachelor of Fine Arts degree, areas of specialization are: Ceramics, Drawing, Painting, Photography, Printmaking and Sculpture. This is a professional degree requiring 75 credits in art distributed as follows: art fundamentals, 9; beginning art history, 6; photography, 3; ceramics, 3; printmaking, 3; sculpture, 3; painting, 3; drawing, 3; introductory art criticism, 3; upper-division art history, 6; upper-division art criticism, 3; upper-division studio courses outside area of specialization, 12; upper-division studio courses in the area of specialization, 12; professional practices/senior thesis, 6.

### Bachelor of Arts with a major in Art

Students seeking the Bachelor of Arts degree with a major in Art must complete 57 credits in art: art fundamentals, 9; beginning art history, 6; photography, 3; ceramics, 3; printmaking 3; sculpture, 3; painting, 3; drawing, 3; introductory art criticism, 3; upper-division art history, 6; upper-division (300- and 400-level) art studio courses, 12; upper-division art criticism, 3.

### Bachelor of Arts with a major in Art, specialization in Art Education

Art education is an area of specialization designed for the student seeking licensure (K-12) in the extended major teaching field of art.

A student must complete ARTZ 105A, 106A, 108A (ART 101A, 102A, 103A), ARTH 200H, 201H, 250L, 350 (150H, 151H, 203L, 215A, 303), ARTZ 211A, 231A, 271A, 251A, 221A, 284A, 402, 403 (ART 223A, 229A, 233A, 235A, 240A, 215A, 407, 408), DANC 497 (DAN 427), twelve credits in upper-division studio courses, and six credits in upper-division art history courses.

For licensure to teach Art K-12, a student must gain admission to Teacher Education Program and meet the requirements for teacher licensure (see the College of Education section of this catalog).

### Suggested Course of Study: B.A./B.F.A. Degree.

Credits in parentheses are additional requirements for the B.F.A.

	F	S
<b>First Year</b>		
ARTZ 105A (ART 101A) Visual Language - Drawing	3	-
ARTZ 106A (ART 102A) Visual Language - 2-D Fndtns	-	3
ARTZ 108A (ART 103A) Visual Language - 3-D Fndtns	3	-
ARTH 200H-201H (ART 150H-151H) Art of World Civilization I and II	3	3
Two sections of studio class i.e. ARTZ 251A (ART 235) Sculpture I	-	3
and/or ARTZ 271A (ART 233A) Printmaking I	-	3
WRIT 101 (ENEX 101) College Writing I	3	-
Other General Education courses	3	3
	15	15
<b>Second Year</b>		
ARTH 250 L (ART 203L) Introduction to Art Criticism	3	-
ARTZ 211A (ART 223A) Drawing I	3	-
ARTZ 231A (ART 229A) Ceramics I	-	3
ARTZ 284A (ART 215A) Photo I - Techs and Processes	3	-
ARTZ 221A (ART 240A) Painting I	-	3
General Education	6	9
	15	15
<b>Third Year</b>		
Art History (300-level)	3	3
Studio II courses	6	6
Studio courses (B.F.A. option courses)	(3)	(3)
ATH 350 or 450 (ART 303L or 403L) Contemp Art and Art Criticism or Renaissance Theory & Criticism	3	3
General Education	3	6



	15-18	15-18
<b>Fourth Year</b>		
Studio courses (B.F.A., courses in specialization)	(3)	(3)
Studio art courses (300-400 level)	3	3
ARTZ 494 (ART 494) Seminar Professional Practices (B.F.A.)	(3)	-
ARTZ 499 (ART 499) Senior Thesis/Capstone (B.F.A.)	-	(3)
Elective & General Education	6-12	6-12
	15-18	15-18

**Requirements for a Minor****Art History/Criticism**

To earn a minor in art history/criticism the student must complete at least 24 credits to include the following; ARTZ 105A (ART 101A); ARTH 200H, 201H (ART 150H, 151H), ARTH 250L (ART 203L); 9 credits from 300-level art history courses; 3 credits from ART 303L, or 400-level art history and criticism courses.

**Art Studio**

To earn a minor in art studio the student must complete at least 27 credits to include the following: ARTZ 105A, 106A, 108A, (ART 101A, 102A, 103A); ARTH 200H, 201H (ART 150H, 151H); 9 credits from ARTZ 284A, 231A, 271A, 251A, 221A, or 211A (ART 215A, 229A, 233A, 235A, 240A, or 223A); and 3 credits in 300-level studio courses.

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Art: Visual Arts (ARTZ) - Course Descriptions**

105A, 106A, 108A, 131A, 191, 211A, 221A, 231, 251A, 271A, 284A, 291, 311, 321, 331, 335, 351, 371, 384, 385, 388, 391, 394A, 398, 410, 420, 422, 430, 470, 484, 486, 491, 492, 494, 498, 499, 501, 502, 504, 505, 511, 515, 521, 531, 551, 571, 582, 583, 584, 585, 586, 587, 588, 589, 594, 595, 596, 598, 697, 598, 699

**Art: Art History (ARTH) - Course Descriptions**

160L, 200H, 201H, 250L, 333H, 350, 400, 402H, 407, 425, 430, 433H, 434H, 435, 436, 440, 450, 458, 459, 464, 465, 494, 503, 550, 597

**Art Education (ARTZ) - Course Descriptions**

302A, 402, 403

**Faculty****Professors**

James Bailey, M.F.A., University of Wisconsin-Madison, 1989

Mary Ann Bonjorni, M.F.A., University of California-Santa Barbara, 1986

Hipolito Rafael Chacón, Ph.D., University of Chicago, 1995

Elizabeth Dove, M.F.A., Vermont College of Norwich, 1999

Julia Galloway, M.F.A., University of Colorado-Boulder, 1995

Elizabeth Lo, M.F.A., The University of Montana, 1974

Cathryn Mallory, M.F.A., University of Oklahoma, 1985

Barbara Tilton, M.F.A., Vermont College of Norwich, 1996

**Associate Professors**

Bradley Allen, M.F.A., Southern Illinois University, 2005

Valerie Hedquist, Ph.D., University of Kansas, Lawrence, 1990

**Assistant Professors**

Kevin Bell, M.F.A., University of Oregon-Eugene, 2002

Matt Hamon, M.F.A., University of Washington-Seattle, 2002

Trey Hill, M.F.A., San Jose State University, 2002

#### Adjunct Assistant Professors

Bev Gluecker, M.F.A., The University of Montana, 1989

Steven Krutek, M.F.A., The University of Montana, 2006

Edgar Smith, M.A., The University of Montana, 2004; M.F.A., Ohio University, 1989

Shalene Valenzuela, M.F.A., California College of the Arts, 1997

#### Emeritus Professors

Marilyn Bruya, M.F.A., Bard College, 1986

James G. Todd, M.F.A., The University of Montana, 1969

## College of Visual and Performing Arts

Stephen Kalm, Dean

The College of Visual and Performing Arts is a comprehensive professional school committed to leadership in teaching, scholarship, professional performance and service at state, regional, national and international levels. The College is comprised of outstanding artist/faculty/scholars, staff and administrative personnel, all of whom are committed to providing a challenging, positive educational environment for students as well as an atmosphere characterized by collegiality, cooperation and interdependence.

The mission of the College of Visual and Performing Arts is to serve the University, the State of Montana, and the nation as a cultural center of national significance and as a leader in the performing and visual arts, arts education, and new media and technologies. In pursuit of this mission the College seeks to:

- . serve students at The University of Montana-Missoula by teaching each of the performing and visual arts with rigor and devotion, and by offering preparation and experience that will enable students to take their places in the world of art, to perform and create with grace and maturity, and to teach with expertise and perspective;
- . serve the University at large, as well as the community, state, region and nation, by presenting concerts, productions, and exhibitions of high quality, and by offering educational and research opportunities in the arts for non-majors as well as majors;
- . provide national leadership in the arts by enhancing the excellence of traditional arts curricula, instruction and research with innovative and imaginative programs that utilize new technologies, new media, and new cultural and intellectual environments;
- . inspire the pursuit of excellence, encouraging creativity and expression through the arts.

The College of Visual and Performing Arts offers an integrated arts and education masters program entitled the *Creative Pulse*. Offered during Summer sessions, the program is designed to develop Masters Teachers in the Arts, Sciences and Humanities. For more information on the College of Visual and Performing Arts, visit [www.umt.edu/umarts](http://www.umt.edu/umarts)

## School of Media Arts

- . Special Degree Requirements
- . Courses
- . Faculty

Mark Shogren, Director

The School of Media Arts has degree programs at both undergraduate and graduate levels. The undergraduate program offers a B.A. degree that consists of a uniquely integrated curriculum centered in digital technology as a storytelling and artistic medium. The course of instruction is comprehensive and combines the areas of digital filmmaking and integrated digital media. The undergraduate program also offers a B.F.A. degree with specializations in Digital Filmmaking, Integrated Digital Media, Animation, and Sonic Arts. The graduate program offers an M.F.A., which provides an intensive, dedicated program in either Digital Filmmaking or Integrated Digital Media. The Digital Filmmaking track offers the student comprehensive training in the areas of writing, directing and editing. The Integrated Digital

Media track focuses on the areas of digital compositing, digital image design, animation, and interactive digital media. In addition, the School has a comprehensive Media Arts Minor program and a substantial number of on-line courses and elective summer classes that provide students the opportunity to enhance the artistic part of their educational experience. For more information on the academic programs and to experience the creative work of Media Arts undergraduate and graduate students please visit our website at: <http://www.umt.edu/mediaarts>.

#### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

#### Bachelor of Arts in Media Arts

The B.A. program provides a uniquely integrated curriculum that combines the areas of Digital Filmmaking and Integrated Digital Media. The courses in Digital Filmmaking focus on the three primary components of pre-production, production and post-production and include directing, writing, sound design, and editing. The courses in Integrated Digital Media focus on the relationship between digital technology and aesthetics and include still image/motion graphics, compositing, 2D animation, sound design and interactive media. History and theory courses in both areas provide students with a deeper understanding of artistic principles and practices. The undergraduate program has a large production space including a green screen area, three computer labs with 60 total stations and an audio recording room. After completion of the prerequisite courses, there is a G.P.A. gate in effect for admission into the Major. For more information on requirements, please see the B.A. program heading under academics or the Media Arts website at <http://www.umt.edu/mediaarts>.

#### Bachelor of Fine Arts in Media Arts

The School of Media Arts offers a Bachelor of Fine Arts degree with 4 specializations: Digital Filmmaking, Integrated Digital Media, Animation, and Sonic Arts. The Digital Filmmaking curriculum offers an all-inclusive experience in the areas of pre-production, production and post-production with specific courses designed to fully integrate students into the ever-changing digital world of filmmaking. The Integrated Digital Media curriculum focuses on still image design, 2D motion design animation, digital compositing, sound design and interactive media and provides a platform for students to maximize their artistic potential through the study of emerging digital technologies and their aesthetic application. The Sonic Arts curriculum offers an in-depth experience in the design, development and production of sonic artwork and provides a platform for students to integrate their work with both filmmaking and integrated digital media. The Animation curriculum focuses 3D modeling, character animation, motion capture, character rigging, texture and lighting, compositing, etc. Finishing classes in surface texturing, rendering, dynamics, particles and MEL scripting will combine all that students have learned into an animation portfolio that will demonstrate their ability to create professional quality assets for film, television, video games, and more. For more information please visit our website at <http://www.umt.edu/mediaarts>.

#### The Media Arts Graduate Program

The Media Arts Graduate Program is a three-year program for students pursuing the M.F.A. degree. It is an intensive program with specializations in either Digital Filmmaking or Integrated Digital Media. For application information please visit our website at <http://www.umt.edu/mediaarts>.

The course of study for the Bachelor of Arts degree in Media Arts is as follows:

##### A. Prerequisites

Offered every term. Each student must complete the following four core classes (12 credits):

MAR 101L Intro to Media Arts - 3 cr.

MART 102 (MAR 102) Digital Technology in the Arts - 3 cr.

MART 111A (MAR 111A) Integrated Digital Art - 3 cr.

MAR 112A Intro to Non-Linear Editing - 3 cr.

##### B. Application to the Major

Upon satisfactory completion of the prerequisites, the student then applies to the B.A. program in spring semester. Acceptance is based on GPA assessment using the combination of prerequisite courses, additional Media Arts courses, overall University GPA, and instructor feedback. Please see the Media Arts office for complete information on the application process.

##### C. Required Courses

Once accepted, the student must then complete the following courses totaling 33 credits (for a total of 45 credits). GPA requirements continue through each assessment period with annual reviews occurring at the end of spring semester each year.

- MAR 210    Creation of Media Story - 3 cr.
- MART 221 (MAR 221)    Fundamentals of Digital Image Design - 3 cr.
- MAR 251    Digital Video Prod. Techniques - 3 cr.
- MAR 300    Visions of Film - 3 cr.
- MAR 301    Digital Film Practices - 3 cr.
- MART 302 (MAR 302)    Intro to Motion Design - 3 cr.
- MART 325 (MAR 325)    Fundamentals of Digital Animation - 3 cr.
- MART 330 (MAR 330)    Principles of Sound Design - 3 cr.
- MART 340 (MAR 340)    Principles of Web Design - 3 cr.
- MART 450 (MAR 450)    Topics in Film and Media Studies - 3 cr.
- MAR 456    Directing - 3 cr.

#### Advisement

Upon acceptance into the B.A. program in Media Arts, each student is assigned a faculty advisor. Students will not be assigned a Media Arts faculty advisor until then. Please see the School Director for details.

#### Media Arts Minor

The Media Arts minor program offers an integrated curriculum, centered in digital technology as a storytelling medium. The minor is meant to supplement the work of those undergraduate students whose major area of study can be enhanced through the application of Media Arts principles and technologies and fulfills the prerequisites for those interested in pursuing the B.A. The Media minor is offered both inc-class and online. For more information please visit our website at <http://www.umt.edu/mediaarts>.

#### A. Required Courses for the Minor

- MAR 101L    Introduction to Media Arts - 3cr
- MART 102 ( MAR 102)    Digital Technology in the Arts - 3cr.
- MART 111A (MAR 111A)    Integrated Digital Art - 3cr.
- MAR 112A    Intro to Non-Linear Editing - 3cr.

#### B. Elective Classes

Each student must complete the four core Media Arts classes for 12 credits, and 9 additional credits outside of their Major that support their work and development in Media Arts. These credits are typically drawn from the College of Visual and Performing Arts and may include eligible courses within the School of Media Arts. All elective courses need to be approved by the Director of the School of Media Arts.

For more information on courses or on developing a curriculum plan, please contact the Media Arts office.

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

#### Media Arts (MART) - Course Descriptions

102, 111A, 191, 221, 222, 230, 235, 255, 256, 291, 292, 302, 305, 320, 321, 324, 325, 330, 333, 335, 340, 341, 342, 391, 392, 395, 398, 416, 422, 425, 440, 445, 450, 457, 491, 492, 495, 499, 500, 508, 509, 510, 514, 515, 520, 522, 523, 524, 525, 557, 577, 578, 579, 580, 586, 587, 591, 595, 596, 597, 598, 601, 680, 687, 688, 690, 699

#### Faculty

##### Professors

Martin Fromm, M.F.A., The University of Idaho, 1992

Richard P. Hughes, M.M., M.F.A., The University of Montana, 1999

Michael R. Murphy, M.F.A., The University of Montana, 1994

#### Associate Professors

Mark Shogren, M.F.A., Ohio University, 2003

Andrew J. Smith, M.F.A., University of Iowa, 1997

Gregory Twigg, M.F.A., The University of Montana, 2001

Heejoo Gwen Kim, M.F.A. , University of Illinois at Chicago, 2000

## School of Music

- . Special Degree Requirements
- . Suggested Course of Study
- . Courses
- . Faculty

**Maxine Ramey, Director**

The School of Music offers students who have demonstrated talent in music the opportunity to continue further study either for a profession or an avocation and to acquire at the same time a broad general education. Complete sequences of courses are given to prepare a student for a career as a teacher or supervisor of music in the elementary/secondary schools; for a career directed toward composition, the music technology industry, private teaching, or concert work; or, for a thorough training in music within the structure of a broad liberal arts curriculum.

Four year degree programs at the undergraduate level include the Bachelor of Music Education; Bachelor of Music with areas of specialization in performance, piano performance and pedagogy or composition/music technology; and Bachelor of Arts in music. Two year graduate degree programs include the Master of Music with areas of specialization in music education, performance, composition/technology; and musical theater.

The University of Montana-Missoula is an accredited institutional member of the National Association of Schools of Music.

In general, admission as a major in the School of Music is by certificate from the high school from which the student graduates. The faculty of the School of Music is more concerned with evidence of talent, conspicuous achievement in music, promise of development, and scholarship in general than it is in the precise content of the program which the prospective music student has followed prior to admission to the University.

The School of Music welcomes the opportunity for prospective students and parents to consult with faculty and administration by paper and electronic correspondence and/or by appointment interviews on the campus. Every student wishing to become a music major or minor must take the Music Theory Assessment Examination and a Piano Proficiency Evaluation during orientation and also must audition and be accepted officially into the applied studio of a music faculty member prior to confirmation as a fully-admitted major or minor in music. Students may be admitted provisionally for one semester, and at the end of that semester students must reaudition to gain full admittance into a music major degree program

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

1. For the Bachelor of Music Education degree, course requirements in Curriculum A must be completed.
2. For the Bachelor of Music degree, course requirements in Curriculum B must be completed.
3. For the Bachelor of Arts degree, course requirements in Curriculum C must be completed.
4. All majors seeking an undergraduate degree in music and who are registered for 5 or more credits must participate in an ensemble specified by their degree curriculum each semester of residence of the regular school year. (See specific curricula for maximum ensemble credits applicable toward minimum degree requirements.)

Majors whose principal performance area is wind/percussion must register for:

- . MUSI 114A/314 (MUS 110A/310), section 1, Symphonic Wind Ensemble (or MUSI 114A/314 (MUS 110A/310), section 2, University Concert Band, or MUSI 108A/308 (MUS 108A/308), section 1, University Orchestra, if designated by the Director, every semester.

String majors must register for:

- . MUSI 108A/308 (MUS 108A/308), section 1, University Orchestra, every semester.

B.M., Vocal Performance, and B.A., voice, majors must register for:

- . a minimum of 4 credits in MUSI 112 (MUS 107A), section 1 (University Choir).

Upon completion of the upper-division recital performance, B.M., Vocal Performance, and B.A., voice, majors may enroll in:

- . MUSI 312 (MUS 307), section 1 (University Choir),
- . MUSI 312 (MUS 307), section 2 (Chamber Chorale),
- . MUSI 312 (MUS 307), section 3 (Women's Chorus),
- . MUSI 310 (MUS 313) (Opera Theater), or
- . MUSI 362 (MUS 350), section 11 (Jubes)

B.M.E. voice majors must take a minimum of:

- . 6 credits in MUSI 112/312 (MUS 107A/307), section 1 (University Choir) and
- . 1 cr. of MUSI 155A (104A) (Marching Band).

Ensemble requirements for piano and organ are listed separately for each curriculum.

5. All students majoring in music are required to attend in a minimum of 100 approved recitals/concerts prior to graduation. During the 4<sup>th</sup> year in an undergraduate degree program and upon completion of this requirement, students should register for MUSI 388, 0 cr.
6. Seniors pursuing the B.M.E. or B.A. degrees and deemed outstanding in performance ability by their applied music teacher may perform a one-half recital only. Students in the B.M. program must present a full recital, a requirement which may be satisfied at the discretion of the area faculty by giving two half recitals.
7. Candidates for all undergraduate degrees in music enrolled in performance study above the MUSI 102A (MUS 100A) level shall take divisional juries as scheduled by area faculties. Students may be excused from divisional juries if graduating in that semester, or if they have performed a half or full recital that term, or have successfully completed an upper-division recital performance during that semester.
8. Successful completion of all lower-division music core requirements is necessary for admission to upper-division academic study in music and for students pursuing the B.M.E. degree, student teaching in music. Transfer students shall be admitted to 300 or above courses with the stipulation that lower-division requirements be completed within their first two semesters of residence.

The required lower- division core includes:

- . MUSI 202L (MUS 135L) (Introduction to Music Literature) 3 cr.
- . MUSI 105-106 (MUS 111-112) (Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Theory III, IV), 4 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 135A-136A (MUS 115A-116A) (Piano in Class I, II), 2 cr.
- . MUSI 235-236 (MUS 215-216) (Keyboard Skills, III, IV), 2 cr. (B.M.E. and B.M. only)
- . MUSI 296, sec. 1 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . and for those pursuing the B.M.E. and B.M. degrees, MUSI 296, sec 2 (MUS 219) (Piano Proficiency Assessment) 0 cr.

All majors seeking upper division standing in applied music will appear in an upper division recital performance/presentation (U.D.R.P). In order to qualify for this performance/presentation the student must be recommended by their advisor and the divisional jury on the basis of performance ability, repertoire studied and sight reading on his/her performing instrument. The recital/presentation must be approved by a 2/3 majority of the music faculty in attendance. Failure in the upper division recital performance/presentation bars students from admission to music courses numbered 300 or above with the exception of 301H 302H (History of Music I, II).

9. All candidates for undergraduate music degrees must complete 39 music and/or non-music credits numbered 300 or above to meet graduation requirements for the first baccalaureate degree. Upper-division credits transferred from other four-year institutions will count toward the 39-credit requirement. Upper-division large and chamber ensembles and non-required applied study may not count as upper-division music electives within the minimum degree requirements except as designated for a particular degree program.
10. Upon successful completion of the Upper-Division Writing Proficiency Assessment, students will complete the Upper-Division Writing Expectation. Candidates for Curriculum A may satisfy this requirement with one course from the MUSI 415, 416, 417 (MUS 424, 436, or 437) series or an upper-division writing course which will also satisfy teacher certification requirements. Candidates for Curriculum B and Curriculum C will satisfy this requirement with one course from the MUSI 415, 416, 417 (MUS 424, 436, or 437).
11. All lower-division music courses, as well as MUSI 301H-302H (MUS 324H- 325H), counted toward the major must be passed with a grade of C- or better.

Requests for exceptions to any published music degree requirements require written approval by the music faculty executive committee and in the case of general university requirements, the Graduation Appeals Subcommittee.

#### Curriculum A- Bachelor of Music Education Degree

For students who feel the challenge and vital service opportunity in the teaching profession and whose high school background includes experience in musical organizations, the University offers the Bachelor of Music Education degree. Included in this curriculum are state requirements for licensure for public school teaching (see College of Education for special licensure requirements) and training and background for instructing instrumental and choral groups and teaching general music (K-12).

Music course requirements total 71 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 2 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 2 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 1 cr.
- . MUSI 102A (MUS 100A) (Performance Study), 2 cr.;
- . MUSI 112A/312 (MUS107A/307), section 1 (University Choir), MUSI 108A/308 (MUS 108A/308) (Orchestras), MUSI 155 (MUS 104A) (Marching Band), MUSI 114A/314 (MUS 110A/310) (Concert Bands), MUSI 122A/322 (MUS150A/350) (Piano Ensembles) or MUSI 192/492 (MUS 196/496) (Independent Studies/Piano Accompanying) 7 cr. of which 2 cr. must be MUSI 155A (MUS 104A) for music education majors with brass, percussion or woodwind principal and 1 cr. must be MUSI 155A (MUS 104A) for music education majors with keyboard, voice or string principal. Only students with keyboard as their principal performance area may include MUSI 162A/362 (MUS150A/350) and/or MUSI 192/492 (MUS 196/496) to a maximum of 3 cr. Guitar principals must enroll in MUSI 162A/362A (MUSI 150A/50).
- . MUSI 105-106 (MUS 111-112) (Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Theory III, IV), 4 cr.
- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 135A-136A (MUS 115A-116A) (Keyboard Skills I, II), 2 cr. (except keyboard principals)
- . MUSI 235-236 (MUS 215-216) (Keyboard Skills III, IV), 2 cr. (except keyboard principals)
- . MUSI 296, sec. 1 (MUS 219) (Piano Proficiency Assessment), 0 cr.
- . MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 123 (MUS 117 ) (Techniques: Voice), 1 cr. (except voice principals)
- . MUSE 120-121 (MUS 124-125) (Techniques: String Instruments in Class I, II), 2 cr.
- . MUSE 273 (MUS 126) (Techniques: Double Reed and Saxophone), 1 cr.
- . MUSE 272 (MUS 127 ) (Techniques: Flute and Clarinet), 1 cr.
- . MUSE 274 (MUS 128) (Techniques: Upper Brass), 1 cr.
- . MUSE 275 (MUS 129) (Techniques: Lower Brass), 1 cr.
- . MUSE 126-127 (MUS 130-131) (Techniques: Percussion Instruments I, II), 2 cr.
- . MUSI 301H-302H (MUS 324H-325H) (History of Music I, II), 6 cr.
- . MUSI 335 (MUS 302) (Instrumental Conducting), 2 cr.
- . MUSI 336 (MUS 303) (Choral Conducting), 2 cr.
- . MUSE 497 (MUS 305) (Methods: Instrumental and Lit), 2 cr.
- . MUSE 497 (MUS 306) (Methods: Choral and Literature), 2 cr.
- . MUSE 333-334 (MUS 322-323) (General Music Methods and Materials I, II) 5 cr.
- . MUSI 388 (MUS 388) (Concert Attendance), 0 cr., 0 cr.
- . MUSI 440 (MUS 428) (Orchestration), 2 cr.
- . upper-division music electives for keyboard principals 4 cr.; for voice principals, 4 cr.; and for orchestral instrument principals, 3 cr.

Students taking keyboard as principal performance area must complete MUSI 332 (MUS 346) (Advanced Functional Piano) 1 cr. and MUSI 435 (MUS 430) (Piano Methods and Materials I) 3 cr. in addition to upper-division music electives.

At least 39 credits, music or non-music, numbered 300 or above is required.

Degrees are possible in both Curriculum A and B if all requirements in both curricula are completed. A double degree program requires a minimum of 150 credits.

#### Curriculum B-Bachelor of Music Degree

The serious instrumentalist or vocalist may enroll for preparation leading to the Bachelor of Music degree in performance while students with a strong interest in composition and music technology may select the B.M. specialization designed to challenge and prepare them for a career in this field. Prior to full acceptance, all candidates for the Bachelor of Music degree in performance must successfully pass a special entrance audition in an applied area. Composition and music technology students must also obtain approval of the appropriate faculty. This degree does not qualify a student for public school teaching in Montana.

**Areas of Specialization in the Bachelor of Music Degree Program Include:**

**Piano (B 1)**

**Music course requirements for a specialization in piano performance total 85 credits:**

- . MUSI 195 (MUS 151) (Applied Study I), 4 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 6 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 8 cr.
- . MUSI 495 (MUS 451) ( IV), 8 cr.
- . MUSI 112/312 (MUS 107A/307) (Choral Ensembles), MUSI 108A/308 (MUS 108A/308) (Orchestras), MUSI 155 (MUS 104A) (Marching Band), MUSI 114A/314 (MUS 110A/310) (Concert Bands), MUSI 162A/362 (MUS 150A/350) (Piano Ensembles) or MUSI 192/492 (MUS 196/496) (Independent Studies/Piano Accompanying), 8 cr. of which at least 4 must be in MUSI 122A/427 (150A/350) or MUSI 192/492 (MUS 196/496) and at least 2 in MUSI 112A/312 (MUS 107A/307), MUSI 108A/308 (MUS 108A/308), or MUSI 114A/314 (MUS 110A/310)
- . MUSI 102A (MUS 100A) (Performance Study), 2 cr.
- . MUSI 105-106 (MUS 111-112) (Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Theory III, IV), 4 cr.
- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 207X World Music, 3 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 335-336 (MUS 302 or 303) (Instrumental Conducting or Choral Conducting), 2 cr.
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 332 (MUS 346) (Advanced Functional Piano), 1 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance), 0 cr., 0 cr.
- . MUSI 435-436 (MUS 430-431) (Piano Methods & Materials I, II), 6 cr.
- . MUSI 432-433 (MUS 432-433) (Keyboard Literature I,II) 6 cr.
- . MUSI 499 (MUS 445) (Senior Recital/ Capstone Pjt), 2 cr.
- . upper division music electives, 3 cr.

A minimum of 24 non music credits is required for piano majors. At least 39 credits, music or non-music, numbered 300 or above is required.

Degrees are possible in both Curriculum A and B if all requirements in both curricula are completed. A double-degree program requires a minimum of 150 credits.

**Organ Performance (B-2)**

**Music course requirements for a specialization in organ performance total 85 credits:**

- . MUSI 195 (MUS 151) (Applied Study I), 6 cr.
- . MUSI 295 (MUS 251) (Major Performance Area I), 6 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 8 cr.
- . MUSI 495 (MUS 451) (Applied Study IV), 8 cr.
- . MUSI 112A/312 (MUS 107A/307) (Choral Ensembles), MUSI 108A/308 (MUS 108A/308) (Orchestras), MUSI 155A (MUS 104A) (Marching Band), MUSI 114A/214 (MUS 110A/310) (Concert Bands), MUSI 122A/322 (MUS 150A/350) (Piano Ensembles) or MUSI 192/492 (MUS 196/496) (Independent Studies/Piano Accompanying), 8 cr.of which at least 4 must be in MUSI 162A/362 (MUS 150A/350) or MUSI 192/492 (MUS 196/496) and at least 2 in MUSI 112A/312 (MUS 107A/307), MUSI 108A/308 (108A/308), or MUSI 114A/314 (MUS 110A/310).
- . MUSI 102A (MUS 100A) (Performance Study), 2 cr.
- . MUSI 105/106 (MUS 111-112) (Theory I, II), 4 cr.
- . MUSI 205/206 (MUS 211-212) (Theory III, IV), 4 cr.
- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 270X World Music, 3 cr.
- . MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 336 (MUS 303) (Choral Conducting), 2 cr.
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 332 (MUS 346) (Advanced Functional Piano), 1 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance), 0 cr.



- . MUSI 435-436 (MUS 430-431) (Piano Methods & Materials I, II)), 6 cr.
- . MUSI 499 (MUS 445) (Senior Recital), 2 cr.
- . MUSI 492 (MUS 496) Independent study in organ construction, design and pedagogy, 2 cr.
- . upper division music electives, 5 cr.

A minimum of 28 non music credits is required for organ majors to include 10 credits in French or German. At least 39 credits, music or non-music, numbered 300 or above is required.

Degrees are possible in both Curriculum A and B if all requirements in both curricula are completed. A double-degree program requires a minimum of 150 credits.

#### Piano Performance and Pedagogy (B-3)

Music course requirements for a specialization in piano performance and pedagogy total 85 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 4 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 4 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 6 cr.
- . MUSI 495 (MUS 451) (Applied Study IV), 6 cr.
- . MUSI 112A/312 (MUS 107A/307) (Choral Ensembles), MUSI 108A/308 (MUS 108A/308) (Orchestras), MUSI 155A (MUS 104A) (Marching Band), MUSI 114A/214 (MUS 110A/310) (Concert Bands), MUSI 122A/322 (MUS 150A/350) (Piano Ensembles) or MUSI 192/492 (MUS 196/496) (Independent Studies/Piano Accompanying), 8 cr.of which at least 4 must be in MUSI 162A/362 (MUS 150A/350) or MUSI 192/492 (MUS 196/496) and at least 2 in MUSI 112A/314 (MUS 107A/307), or MUSI 114A/214 (MUS 110A/310).
- . MUSI 102A (MUS 100A) (Performance Study), 2 cr.
- . MUSI 105/106 (MUS 111-112) (Theory I, II), 4 cr.
- . MUSI 205/206 (MUS 211-212) (Theory III, IV), 4 cr.
- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 207X World Music, 3 cr.
- . MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 335-336 (MUS 302-303) (Choral Conducting), 2 cr.
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 333 (MUS 333) Practicum), 4 cr.
- . MUSI 332 (MUS 346) (Advanced Functional Piano), 1 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance), 0 cr.
- . MUSI 435-436 (MUS 430-431) (Piano Methods & Materials I, II)), 6 cr.
- . MUSI 499\* (MUS 445) (Senior Recital), 2 cr.
- . MUSI 492 (MUS 496) Independent study in organ construction, design and pedagogy, 2 cr.
- . upper division music electives, 3 cr.

A minimum of 24 non-music credits is required for piano majors of which piano performance and pedagogy majors must take PSYX 100S (PSYC 100S) Introduction to Psychology, 4 cr., PSYX 230S (PSYC 240S ) Development Psychology, 3 cr., and DANC 497 (DAN 427) Methods: Teaching Movement in Schools, 3 cr.

\*Piano Performance/Pedagogy Senior Recital may be two half-recitals. One half-recital may include pedagogical lecture/demonstration and/or collaborative repertoire.

Degrees are possible in both Curriculum A and B if all requirements in both curricula are completed. A double-degree program requires a minimum of 150 credits.

#### Voice Performance (B 4)

Music course requirements for a specialization in voice total 84 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 4 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 4 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 4 cr.
- . MUSI 495 (MUS 451) (Applied Study IV), 4 cr.
- . a minimum of 4 credits in MUSI 112A (MUS 107A), (University Choir) and, upon completion of the upper-division recital performance, MUSI 112A/312 (MUS 107A/307), section 1 (University Choir), MUSI 112A/312 (MUS 107A/307), section 2 (Chamber Chorale), MUSI 312 (MUS 307), section 3 (Women's Chorus), MUSI 110A/MUSI 310 (MUS 113A/313) (Opera Theater), or MUSI 162A/362 (MUS 150A/350), section 11 (Jubileers) for an additional 4 credits
- . MUSI 105/106 (MUS 111-112) (Theory I, II), 4 cr.
- . MUSI 205/206 (MUS 211-212) (Theory III, IV), 4 cr.

- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (137-138) (Aural Perception I, II), 4 cr.
- . MUSI 207X World Music, 3 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 296, sec. 1 (MUS 219) (Piano Proficiency Assessment), 0 cr.
- . MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 135A-136A (MUS 115A-116A) (Keyboard Skills I, II), 2 cr.
- . MUSI 235-236 (MUS 215-216) (Keyboard Skills III, IV), 2 cr.
- . MUSI 281-282 (MUS 181-182) (Diction), 4 cr.
- . MUSI 336 (MUS 303) (Choral Conducting), 2 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 342-343 (MUS 342-343) (Vocal Repertoire I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance), 0 cr.
- . MUSI 442 (MUS 441) (Vocal Studio Pedagogy and Lit), 2 cr.
- . MUSI 499 (MUS 445) (Senior Recital/Capstone Pjt), 2 cr.
- . Upper Division music electives, 11 cr.

A minimum of 31 non-music credits is required to include THTR 120A (Drama 111A) (Acting for Non-Majors I), 3 cr., and 10 credits of foreign language chosen from French, German or Italian. At least 39 credits, music or non-music, numbered 300 or above is required.

Degrees are possible in both Curriculum A and B if all requirements in both curricula are completed. A double degree program requires a minimum of 150 credits.

#### Instrumental Performance (B 5)

Music course requirements for a specialization in a instrument (strings, winds, percussion) total 85 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 6 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 6 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 8 cr.
- . MUSI 108A-308 (MUS 108A/308) (Orchestras) or MUSI 114A/314 (MUS 110A/310) (Concert Bands), 8 cr.
- . MUSI 162A-362 (MUS 150A/350) (Chamber Ensembles), 4 cr.
- . MUSI 105-106 (MUS 111-112) (Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Theory III, IV), 4 cr.
- . MUSI 202L (MUS135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 207X World Music, 3 cr.
- . MUSI 240-241 (237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 296, sec. 1 (MUS 219) (Piano Proficiency Assessment), 0 cr.
- . MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 335 (MUS 302) (Instrumental Conducting), 2 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance), 0 cr.
- . MUSI 499 (MUS 445) (Senior Recital/Capstone Pjt), 2 cr.
- . Upper Division music electives, 8 cr. to include MUSI 409 for string principals, MUSI 411 for woodwind principals, MUSI 412 for brass principals, and MUSI 413 for percussion principals.

A minimum of 24 non-music credits is required. At least 39 credits, music or non-music, numbered 300 or above is required. Degrees are possible in both Curriculum A and B if all requirements in both curricula are completed. A double degree program requires a minimum of 150 credits.

#### Composition and Music Technology (B-6)

Music course requirements for a specialization in composition and music technology total 85 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 2 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 2 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 1 cr.
- . MUSI 112-312 (MUS 107A-307) (Choral Ensembles), MUSI 108A/308 (MUS 108A/308) (Orchestras), 104A (Marching Band), or MUSI 114A/314 (MUS 110A/310) (Concert Bands), MUSI 110A/310 (MUS 113A/313) (Opera Theater), MUSI 131A/331 (MUS 114A/314) (UM Jazz Bands), MUSI 162A/362 (MUS 150A/350) (Chamber Ensembles) or MUSI 192/492 (MUS 196/496) (Independent Study/Piano

Accompanying), 8 cr., of which at least 4 must be in MUSI 112A/312 (MUS 107A/307) section 1, MUSI 108A/308 (MUS 108A/308) or MUSI 114A/314 (MUS 110A/310)

- MUSI 105-106 (MUS 111-112) (Theory I, II), 4 cr.
- MUSI 205-206 (MUS 211-212) (Theory III, IV), 4 cr.
- MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- MUSI 240-241 (237-238) (Aural Perception III, IV), 4 cr.
- MUSI 135A-136A (MUS 115A-116A) (Keyboard Skills I, II), 2 cr.
- MUSI 207X World Music, 3 cr.
- MUSI 235-236 (MUS 215-216) (Keyboard Skills III, IV), 2 cr.
- MUSI 296, sec. 1 (MUS 219) (Piano Proficiency Assessment), 0 cr.
- MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- MUSI 180 (MUS 159) (Composition I), 4 cr.
- MUST 110 (MUS 170) (Digital Audio & Multitracking), 2 cr.
- MUST 210 (MUS 271) (Sequencing, Synthesis, and Notation), 2 cr.
- MUSI 280 (MUS 259) (Composition II), 4 cr.
- MUSI 202L (MUS135L) (Introduction to Music Literature) 3 cr.
- MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- MUSI 335 (MUS 302) (Instrumental Conducting) or MUSI 336 (MUS 303) (Choral Conducting) 2 cr.
- MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- MUSI 407 (MUS 379) (Counterpoint), 3 cr.
- MUSI 388 (MUS 388) (Concert Attendance), 0 cr.
- MUSI 380 (MUS 359) (Composition III), 6 cr.
- MUSI 480 (MUS 459) (Composition II), 3 cr.
- MUSI 440 (MUS 428) (Orchestration) 2 cr.
- MUSI 310 (MUS 429) (Interactivity and Digital Signal Processing), 2 cr.
- MUST 410 (MUS 466) (Computer Music Programming), 2 cr.
- MUSI 415 (MUS 424) (Music of the 20th Century to Present), 3 cr.
- MUSI 499 (MUS 499) (Senior Recital/Capstone Pjt), 2 cr.
- and 2 credits of upper-division music elective

Maximum credits applicable toward music requirements for this degree: Large and Chamber Ensembles, 8 cr.; MUSI 195 (MUS 151), 2 cr.; MUSI 295 (MUS 251), 2 cr.; MUSI 395 (MUS 351), 2 cr. (1 cr. as upper-division music elective); MUSI 495 (MUS 451), 2 cr. (as upper-division electives).

A minimum of 24 non-music credits is required. At least 39 credits, music or non-music, numbered 300 or above, is required.

Composition/Technology students must pass a faculty jury examination of representative work in composition at the end of their sophomore year. Seniors present a full recital of original music (MUSI 499 (MUS 499), Professional Projects) including compositions for small, medium, and large vocal or instrumental ensembles, as well as works that employ music technology.

Degrees are possible in both Curriculum A and B if all requirements in both curricula are completed. A double degree program requires a minimum of 150 credits.

#### Curriculum C-Bachelor of Arts Degree in Music

Music students with an interest in a broader liberal arts education may choose one of the specializations in curriculum C. With more opportunities to take electives outside of music, this program offers flexibility for students with diverse interests, including those who pursue a double major. The Bachelor of Arts Degree in Music may be particularly attractive to students who wish to pursue graduate degrees in academic areas of music, or for those who seek careers in institutions or music-related industries. Students may choose from one or more of the following areas of specialization: (C-1) Musical Studies, (C-2) Applied Music, (C-3) Music History, (C-4) Composition and Music Technology, and (C-5) Instrumental Jazz Studies.

Minimum credit requirements for this degree are 51 credits in music and 51 credits of non music courses. At least 36 of the non-music credits must be in the College of Arts and Sciences, to include foreign language, 10 cr., and Liberal Studies 151L-152L, 8 cr.

At least 39 music and/or non-music credits must be numbered 300 or above.

Students in curriculum C will participate in ensembles as required by the School of Music once MUSI 195 (MUS 151) status or higher has been achieved. Students who have completed an upper-division required performance on an instrument or voice, or have otherwise been placed in Applied Music 395 or 495 may take ensembles for upper-division credit.

Maximum music credits applicable toward this degree: Performance, 16 cr.; Large Ensemble Music, 8 cr. (maximum upper-division Large Ensemble Music credits: 4 cr.); Chamber Ensemble Music, 4 cr..

Students with keyboard as their principal instrument must take a minimum of 2 Large Ensemble Music credits and may take Music

162A/362 (Piano Ensembles) and/or Music 192/492 (Independent Studies/Piano Accompanying) to a maximum of 12 credits Large and Chamber Ensemble Music.

Those with voice as their principal must take a minimum of 2 to 4 credits in 107A, section 1 (University Choir), depending on specialization, and, upon completion of the upper-division required proficiency, 112A/312, section 1 (University Choir), 107A/307, section 2 (Chamber Chorale), 312, section 3 (Women's Chorus), 110A/310 (Opera Theater), or 162A/362, section 11 (Jubileers) for an additional 4 credits.

See Specializations C-1 through C-4 for specific ensemble and course requirements.

#### Specialization in Musical Studies (C-1)

Music course requirements for a specialization in musical studies total 51 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 2 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 2 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 1 cr.
- . MUSI 108A/308 (MUS 108A/308) (Orchestras), MUSI 155A (MUS 104A) (Marching Band), or MUSI 114/314 (MUS 110A/310) (Concert Bands), 5cr. (Keyboard and Voice principals see above)
- . Chamber Ensemble Music MUSI 110A/3101 (MUS 13A/313), MUSI 131A/331 (MUS 114A/314), MUSI 162A/362 (MUS 150A/350), 0–4 cr. (Keyboard principals see above)
- . MUSI 105-106 (MUS 111-112) (Music Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Music Theory III, IV), 4 cr.
- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 296, sec 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 135A-136A (MUS 115A-116A) (Keyboard Skills I, II), 2 cr
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance UM), 0 cr.
- . Upper division music electives, 6 cr.
- . Upper division academic music electives, 4 cr.

Minimum credit requirements for this degree is 51 credits in music and 51 credits of non-music courses. At least 36 of the non-music credits must e in the College of Arts and Sciences, to include foreign language, 10 cr., and Liberal Studies 151L-152L, 8 cr.

At least 39 credits, music or non-music, numbered 300 or above are required.

#### Specialization in Applied Music (C-2)

Music course requirements for a specialization in applied music total 51 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 2 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 2 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 2 cr.
- . MUSI 495 (MUS 451) (Applied Study IV), 2 cr.
- . MUSI 108A/308 (MUS 108A/308) (Orchestras), MUSI 155A (MUS 104A) (Marching Band), or MUSI 114/314 (MUS 110A/310) (Concert Bands), 5cr. (Keyboard and Voice principals see above)
- . Chamber Ensemble MUSI 162A/362 (MUS 150A/350), MUSI 110A/310 (MUS 313/313), MUSI 131A/331 (MUS 114A/314), MUSI 122A/322 (MUS 150A/350), 0-4 cr. (Keyboard principals see above)
- . MUSI 105-106 (MUS 111-112) (Music Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Music Theory III, IV), 4 cr.
- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 135A-136A (MUS 115A-116A) (Keyboard Skills I, II), 2 cr
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance UM), 0 cr.
- . upper division academic music electives, 4 cr.

Minimum credit requirements for this degree is 51 credits in music and 51 credits of non-music courses. At least 36 of the non-music credits must be in the College of Arts and Sciences, to include foreign language, 10 cr., and Liberal Studies 151L-152L, 8 cr.

At least 39 credits, music or non-music, numbered 300 or above are required.

## Specialization in Music History (C-3)

Music course requirements for a specialization in music history total 51 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 2 cr.
- . MUSI 112A312 (MUS 107A/307) (Choral Ensembles)
- . MUSI 108A/308 (MUS 108A/308) (Orchestras), MUSI 155A (MUS 104A) (Marching Band), or MUSI 114/314 (MUS 110A/310) (Concert Bands), 5cr. (Keyboard and Voice principals see above), or MUSI 192/492 (MUS 196/496) (Independent Study Piano Accompanying), 2 cr.
- . MUSI 105-106 (MUS 111-112) (Music Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Music Theory III, IV), 4 cr.
- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.135A-136A (Piano in Class I, II), 2 cr.
- . MUSI 207H (MUS 136H) (Music of the World's Peoples), 3 cr.
- . MUSI 296, sec 2 (MUS 220) (Upper-Division Required Presentation), 0 cr.
- . MUSI 135A-136A (MUS 115A-116A) (Keyboard Skills I, II), 2 cr
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance UM), 0 cr.
- . MUSI 415 (MUS 424) (Music of the 20th Century to Present), 3 cr.
- . MUSI 416-417 (MUS 436-437) (Topics in Music History/Cultural Studies), 6 cr.
- . MUSI 499 (MUS 499) (Senior Recital/Capstone Pjt), 2 cr.
- . Upper division academic music electives, 2 cr.

Minimum credit requirements for this degree is 51 credits in music and 51 credits of non-music courses. At least 36 of the non-music credits must be in the College of Arts and Sciences, to include foreign language, 10 cr., and Liberal Studies 151L-152L, 8 cr.

At least 39 Credits, music or non-music, numbered 300 or above are required.

## Specialization in Composition and Music Technology (C-4)

Music course requirements for a specialization in composition and music technology total 51 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 2 cr.
- . MUSI 112A/312 (MUS 107A/307) (Choral Ensembles), MUSI 108A/108A (MUS 108A/308) (Orchestras), MUSI 155A (MUS 104A) (Marching Band), or MUSI 114/314 (MUS 110A/310) (Concert Bands), or MUSI 192/492 (MUS 196/496) (Independent Study Piano Accompanying), 2 cr.
- . MUSI 105-106 (MUS 111-112) (Music Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Music Theory III, IV), 4 cr.
- . MUSI 202L (MUS 135L) (Introduction to Music Literature), 3 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 135A-136A (MUS 115A-116A) (Keyboard Skills I, II), 2 cr
- . MUSE 123 (MUS 117), MUSE120-127 (124-131)(Techniques: Voice/Instruments), 4 cr.
- . MUSI 180 (MUS 159) (Composition I) 2 cr.
- . MUST 110 (MUS 170) (Digital Audio & Multitracking), 2 cr.
- . MUSI 296, sec 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 280 (MUS 259) (Composition II), 2 cr.
- . MUSI 210 (MUS 271) (Sequencing, Synthesis, and Notation), 2 cr.
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 356-357 (MUS 361-362) (Form and Analysis I, II), 4 cr.
- . MUSI 388 (MUS 388) (Concert Attendance UM), 0 cr.
- . MUSI 380 (MUS 359) (Composition III), 1 cr
- . MUSI 480 (MUS 459) (Composition IV), 1 cr
- . MUS 440 (MUS 428) (Orchestration) 2 cr.

Minimum credit requirements for this degree is 51 credits in music and 51 credits of non-music courses. At least 36 of the non-music credits must be in the College of Arts and Sciences, to include foreign language, 10 cr., and Liberal Studies 151L-152L, 8 cr.

At least 39 Credits, music or non-music, numbered 300 or above are required.

## Specialization in Instrumental Jazz Studies (C-5)

Music course requirements for a specialization in applied music total 51 credits:

- . MUSI 195 (MUS 151) (Applied Study I), 2 cr.
- . MUSI 295 (MUS 251) (Applied Study II), 2 cr.
- . MUSI 395 (MUS 351) (Applied Study III), 1 cr.
- . MUSI 108A/308 (MUS 108A/308) (Orchestras), MUSI 155A (MUS 104A) (Marching Band), or MUSI 114/314 (MUS 110A/310) (Concert Bands), 5cr. (Keyboard and Voice principals see above)
- . Chamber Ensemble Music MUSI 110A/310 (MUS 313/313), MUSI 131A/331 (MUS 114A/314), MUSI 162A/362 (MUS 150A/350), 0-4 cr. (Keyboard principals see above)
- . MUSI 105-106 (MUS 111-112) (Music Theory I, II), 4 cr.
- . MUSI 205-206 (MUS 211-212) (Music Theory III, IV), 4 cr.
- . MUSI 130L (History of Jazz), 3 cr.
- . MUSI 270H (Music of the World's Peoples), 3 cr.
- . MUSI 140-141 (MUS 137-138) (Aural Perception I, II), 4 cr.
- . MUSI 240-241 (MUS 237-238) (Aural Perception III, IV), 4 cr.
- . MUSI 296, sec. 2 (MUS 220) (Upper-Division Required Performance), 0 cr.
- . MUSI 135A-136A (MUS 115A-116A) (Keyboard Skills I, II), 2 cr
- . MUSI 301H-302H (MUS 324H-325H) (Music History I, II), 6 cr.
- . MUSI 329-330 (Jazz Theory and Improv.), 4 cr.
- . MUSI 420 Jazz Arranging, 3 cr.
- . MUSI 422 Jazz Pedagogy, 3 cr.
- . MUSI 499 Senior Research Project
- . Minimum credit requirements for this degree is 51 credits in music and 51 credits of non-music courses. At least 36 of the non-music credits must be in the College of Arts and Sciences, to include foreign language, 10 cr., and Liberal Studies 151L-152L, 8 cr.

At least 39 credits, music or non-music, numbered 300 or above are required.

### Suggested Course of Study

#### Bachelor of Music Education (A)

##### First Year

	<b>A</b>	<b>S</b>
MUSI 112A, 108A, 114A, 162A, 192 (MUS 107A 110A, 150A, 196) Ensembles	1	1
MUS 105-106 (MUSI 111-112) Music Theory I, II	2	2
*MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1	1
*MUSE 123 (MUS 117) Techniques: Voice	1	-
MUSI 202L (MUS 135L) Introduction to Music Literature	-	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2	2
MUSI 195 (MUS 151) Applied Study I	1	1
MUSI 155A (MUS 104A) Marching Band	1	-
PSYX 100S (PSYC 100s) Introduction to Psychology	-	4
Electives and General Education (WRIT 101) (ENEX 101)	6	-
	15	17

##### Second Year

MUSI 112A, 108A, 114A, 162A, 192 (MUS 107A 110A, 150A, 196) Ensembles	1	1
MUSI 155A (104A) Marching Band	1	-
MUSE 120-121 (MUS 124-125) Techniques: Strings Instruction in Class I, II	1	1
MUSE 126-129 (MUS 126-129) Techniques: Double Reed, Flute & Single Reed, upper Brass Lower Brass	1	1
MUSI 205-206 (MUS 211-212) Theory III, IV	2	2
*MUSI 235-236 (MUS 215-216) Keyboard Skills III, IV	1	1
MUSI 296, sec. 1 (MUS 219) Piano Proficiency Assessment	-	0
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance	-	0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2	2
MUSI 295 (MUS 251) Applied Study II	1	1
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3	3
Professional Education	3	3
Electives and General Education	-	3
	15	13

##### Third Year

MUSI 102A (MUS 100A) Performance Study	1	-
MUSE 126-129 (MUS 126-131) Techniques: Double Reed, Flute & Single Reed, upper Brass Lower Brass, Percussion Instruments I, II	2	2
MUSI 335 (MUS 302) Instrumental Conducting	2	-
MUSI 336 (MUS 303) Choral Conducting	2	-
MUSE 497 (MUS 305) Methods: Instrumental & Literature	2	-
MUSE 497 (MUS 306) Methods: Choral & Literature	2	-
MUSI 312, 308, 314, 339, 332, 322, 323, 362, 467, MUST 427 (MUS 307, 310, 350) Ensembles	1	1
MUSE 333-334 (MUS 322-323) General Music Methods and Materials I, II	2	3
MUSI 395 (MUS 351) Applied Study III	1	-
MUSI 440 (MUS 428) Orchestration	2	-

Electives and General Education	4	6
	17	17
<b>Fourth Year</b>		
MUSI 102A (MUS 100A) Performance Study	1	-
MUSI 312, 308, 314, 339, 332, 322, 323, 362, 467, MUST 427 (MUS 307, 310, 350) Ensembles	1	-
MUSI 388 (MUS 338) Concert Attendance	-	0
Upper division music electives	3-4	-
**Student Teaching	-	14
MUSE 425: Technology and Resource Materials K-12	2	-
Electives and General Education	6	-
	13-14	15

**\*Keyboard principals do not enroll in MUSI 135A-136A (MUS 115A-116A) or MUSI 235-236 (MUS 215-216) but must take MUSI 332 (MUS 346) and MUSI 435 (MUS 430) as upper-division music electives.**

**\*\*May be scheduled autumn semester with appropriate adjustments in remaining schedule.**

**Bachelor of Music, Specialization in Piano Performance (B 1)**

**First Year**

MUSI 112A, 108A, 114A, 122A, 123A, 162A, 192A, 267A, MUST 227A (MUS 107A 110A, 150A, 196) Ensembles	1	1
MUSI 105-106 (MUS 111-112) Music Theory I, II	2	2
MUSI 202L (MUS 135L) Introduction to Music Literature	-	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2	2
MUSI 195 (MUS 151) Applied study I	2	2
Electives and General Education (WRIT 101) (ENEX 101)	7	6
	14	16

**Second Year**

MUSI 112A, 108A, 114A, 122A, 123A, 162A, 192A, 267A, MUST 227A (MUS 107A 110A, 150A, 196) Ensembles	1	1
MUSI 206-206 (MUS 211-212) Music Theory III, IV	2	2
MUSI 296, sec. 1 (MUS 219) Piano Proficiency Assessment	-	0
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance	-	0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2	2
MUSI 295 (MUS 251) Applied Study II	3	3
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3	3
MUSI 102A (MUS 100A) Performance Study	1	1
Electives and General Education	3	3
	15	15

**Third Year**

MUSI 312, 308, 314, 339, 332, 322, 323, 362, 467, MUST 427 (MUS 307, 310, 350, 496) Ensembles	1	1
MUSI 332 (MUS 346) Advanced Functional Piano	-	1
MUSI 395 (MUS 351) Applied Study III	4	4
MUSI 256-257 (MUS 361-362) Form and Analysis I, II	2	2
MUSI 435-436 (MUS 430-431) Piano Methods & Materials I, II	3	3
MUSI 335-336 (MUS 302-303) Inst. or Choral Conducting	2	-
Electives and General Education	3	4
	15	15

**Fourth Year**

MUSI 312, 308, 314, 339, 332, 322, 323, 362, 467, MUST 427 (MUS 307, 310, 350, 496) Ensembles	1	1
MUSI 432-433 (MUS 432-433) Keyboard Literature I, II	3	3
MUSI 388 (MUS 388) Concert Attendance UM	-	0
MUSI 499 (MUS 445) Senior Recital/Capstone Pjt	-	2
MUSI 451 (MUS 451) Applied Study IV	4	4
*Upper division music electives	3	-
Electives and General Education	5	4
	16	14

**A minimum of 24 non-music credits is required for piano majors. At least 39 credits, music or non-music, numbered 300 or above is required.**

**MUSI 207X World Music is required and fulfills Perspective X: Indigenous and Global Perspectives.**

**Bachelor of Music, Specialization in Organ Performance (B-2)**

**First Year**

MUSI 112A, 108A, 114A, 122A, 123A, 162A, 192A, 267A, MUST 227A (MUS 107A 110A, 150A, 196) Ensembles	1	1
MUSI 105-106 (MUS 111-112) Music Theory I, II	2	2
MUSI 202L (MUS 135L) Introduction to Music Literature	-	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2	2
MUSI 195 (MUS 151) Applied Study I	3	3

Electives and General Education (WRIT 101)(ENEX 101)	6 5
	14 16
<b>Second Year</b>	
MUSI 112A, 114A, 122A, 123A, 162A, 192A, 267A, MUST 227A (MUS 107A 110A, 150A, 196) Ensembles	1 1
MUSI 205-206 (MUS 211-212) Music Theory III, IV	2 2
MUSI 296, sec. 1 (MUS 219) Piano Proficiency Assessment	- 0
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance	- 0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2 2
MUSI 295 (MUS 251) Applied Study II	3 3
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3 3
MUSI 102A (MUS 100A) Performance Study	1 1
Electives and General Education	3 3
	15 15
<b>Third Year</b>	
MUSI 312, 308, 314, 339, 332, 322, 323, 362, 467, MUST 427 (MUS 307, 310, 350, 496) Ensembles	1 1
MUSI 332 (MUS 346) Advanced Functional Piano	- 1
MUS 351 Major Performance III	4 4
MUSI 435-436 (MUS 430-431) Piano Methods & Materials I, II	3 3
MUSI 336 (MUS 303) Choral Conducting	2 -
Upper-division music electives	- 2
French or German	5 5
	15 15
<b>Fourth Year</b>	
MUSI 312, 308, 314, 322, 323, 362, 492, MUST 427 (MUS 307, 310, 350, 496) Ensembles	1 1
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2 2
MUSI 388 (MUS 388) Concert Attendance UM	- 0
MUSI 499 (MUS 445) Senior Recital/Capstone Pjt	- 2
MUSI 495 (MUS 451) Applied Study IV	4 4
MUSI 492 (MUS 496) Independent Study	- 2
*Upper division music electives	3 -
Electives and General Education	5 4
	15 15

**A minimum of 28 non-music credits is required for organ majors to include 10 credits in French and/or German. At least 39 credits, music or non-music, numbered 300 or above is required.**

**MUSI 207X World Music is required and fulfills Perspective X: Indigenous and Global Perspectives.**

**Bachelor of Music, Specialization in Piano Performance and Pedagogy (B-3)**

<b>First Year</b>	
MUSI 112A, 108A, 114A, 122A, 123A, 162A, 192A, 267A MUST 227A (MUS 107A, 110A, 150A, 196) Ensembles	1 1
MUSI 105-106 (MUS 111-112) Music Theory I, II	2 2
MUSI 202L (MUS 135L) Introduction to Music Literature	- 3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2 2
MUSI 195 (MUS 151) Applied Study I	2 2
Electives and General Education (WRIT 101)(ENEX 101)	7 6
	14 16
<b>Second Year</b>	
MUSI 112A, 108A, 114A, 122A, 123A, 162A, 192A, 267A, MUST 227A (MUS 107A, 110A, 150A, 196) Ensembles	1 1
MUSI 205-206 (MUS 211-212) Music Theory III, IV	2 2
MUSI 296, sec. 1 (MUS 219) Piano Proficiency Assessment	- 0
MSUI 296, sec. 2 (MUS 220) Upper-Division Required Performance	- 0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2 2
MUSI 295 (MUS 251) Applied Study II	2 2
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3 3
MUSI 102A (MUS 100A) Performance Study	1 1
Electives and General Education (PSYX 100S)(PSYC 100S)	4 4
	15 15
<b>Third Year</b>	
MUSI 308, 312, 314, 322, 323, 362, 492, MUST 427 (MUS 308, 307, 310, 350, 496) Ensembles	1 1
MUSI 332 (MUS 346) Advanced Functional Piano	1 -
MUSI 395 (MUS 351) Applied Study III	3 3
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2 2
MUSI 435-436 (MUS 430-431) Piano Methods and Materials	3 3
MUSI 333 (MUS 333) Practicum	- 1
MUSI 335/336 (MUS 302/303) Instrum. or Choral Conducting	2 -
PSYX 230S (PSYC 240S) Developmental Psychology	3 -
Electives and Gen Ed	- 6



	15 16
<b>Fourth Year</b>	
MUSI 308, 312, 314, 322, 323, 362, 492, MUST 427 (MUS 307, 310, 350, 496) Ensembles	1 1
MUSI 333 (MUS 333) Practicum in Piano Pedagogy	2 1
MUSI 388 (MUS 388) Concert Attendance UM	- 0
MUSI 432-433 (MUS 432-433) Keyboard Literature I, II	3 3
MUSI 499 (MUS 445) Senior Recital/Capstone Pjt	- 2
MUSI 495 (MUS 451) Major Performance IV	3 3
DANC 497 (DAN 427) Methods: Teaching Movement in Schools	3 -
*Upper division music electives	3 -
Electives and General Education	3 5
	18 15

**A minimum of 24 non-music credits is required for piano majors of which piano performance/pedagogy majors must take PSYX 100S (PSYC 100S) Introduction to Psychology, 4 cr., PSYX 230S (PSYC 240S ) Development Psychology, 3 cr., and DANC 497 (DAN 427) Methods: Teaching Movement in Schools, 3 cr.**

**At least 39 credits, music or non-music, numbered 300 or above is required.**

**MUSI 207X World Music is required and fulfills Perspective X: Indigenous and Global Perspectives.**

**Bachelor of Music with a specialization in Voice Performance (B 4)**

<b>First Year</b>	<b>A S</b>
MUSI 112 (MUS 107A) Choir: UM University Choir	1 1
MUSI 105-106 (MUS 111-112) Music Theory I, II	2 2
MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1 1
MUSI 202L (MUS 135L) Introduction to Music Literature	- 3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2 2
MUSI 195 (MUS 151) Applied Study I	2 2
MUSI 281-282 (MUS 181-182) Diction: German & French	2 2
THTR 120A (DRAM 111A) Introduction to Acting I	3 -
Electives and General Education	3 3
	16 16
<b>Second Year</b>	
MUSI 112 (MUS 107A) Choir: UM University Choir	1 1
MUSI 205-206 (MUS 211-212) Music Theory III, IV	2 2
MUSI 235-236 (MUS 215-216) Keyboard Skills III, IV	1 1
MUSI 296, sec. 1 (MUS 219) Piano Proficiency Assessment	- 0
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance	- 0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2 2
MUSI 295 (MUS 251) Applied Study II	2 2
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3 3
Foreign language (French, Italian or German I, II)	5 5
	16 16
<b>Third Year</b>	
MUSI 312, 310, 322, 323, 362, MUST 427 (MUS 307, 313, 350) Ensembles	1 1
MUSI 336 (MUS 303) Choral Conducting	2 -
MUSI 310 (MUS 313) Opera Theater II	1 1
MUSI 342-343 (MUS 342-343 Vocal Repertoire) I, II	2 2
MUSI 395 (MUS 351) Applied Study III	2 2
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2 2
MUSI 442 (MUS 441) Vocal Studio Pedagogy and Lit	- 2
Upper-division music electives	3 -
Electives and General Education	3 3
	16 13
<b>Fourth Year</b>	
MUSI 312, 310, 322, 323, 362, MUST 427 (MUS 307, 313, 350) Ensembles	1 1
MUSI 388 (MUS 388) Concert Attendance UM	- 0
MUSI 499 (MUS 445) Senior Recital/Capstone Pjt	- 2
MUSI 495 (MUS 451) Applied Study IV	2 2
Upper division music electives	2 3
*Electives and General Education	8 6
	13 14

**\*Must include THTR 120A (Drama 111A) (Introduction to Acting I), 3 cr.**

**MUSI 207X World Music is required and fulfills Perspective X: Indigenous and Global Perspectives.**

**Bachelor of Music with a Specialization in Instrumental Performance (B 5)**

**First Year**

MUSI 108A, 114A (MUS 108A, 110A) 162A Ensembles	1	1
MSUI 105-106 (MUS 111-112) Music Theory I, II	2	2
MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1	1
MUSI 202L (MUS 135L) Introduction to Music Literature	-	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2	2
MUSI 195 (MUS 151) Applied Study I	3	3
Electives and General Education (WRIT 101)(ENEX 101)	6	3
	15	15

**Second Year**

MUSI 108A, 114A (MUS 108A, 110A), 162A Ensembles	1	1
MUSI 205-206 (MUS 211-212) Music Theory III, IV	2	2
MUSI 235-236 (MUS 215-216) Keyboard Skills I, II	1	1
MUSI 296, sec. 1 (MUS 219) Piano Proficiency Assessment	-	0
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance	-	0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2	2
MUSI 295 (MUS 251) Applied Study II	3	3
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3	3
Electives and General Education	3	3
	15	15

**Third Year**

MUSI 308, 314 (MUS 308, 310), 362 Ensembles	1	1
MUSI 335 (MUS 302) Instrumental Conducting	-	2
MUSI 322, 323, 362, MUST 427 (MUS 350) Chamber Ensembles	1	1
MUSI 395 (MUS 351) Applied Study III	4	4
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2	2
Upper division music electives	2	2
Electives and General Education	6	3
	16	15

**Fourth Year**

MUSI 308, 314 (MUS 308, 310) Ensembles	1	1
MUSI 322, 323, 362, MUST 427 (MUS 350) Chamber Ensembles	1	1
MUSI 388 (MUS 388) Concert Attendance UM	-	0
MUSI 499 (MUS 445) Senior Recital/Capstone Pjt	-	2
MUSI 495 (MUS 451) Applied Study IV	4	4
*Upper division music electives	2	2
Electives and General Education	6	5
	14	15

\*String principals also must take MUSI 490 (MUS 409) String Pedagogy & Literature.

\* Woodwind principals must also take MUSI 411 Woodwind Pedagogy. Brass principals must take MUSI 412 Brass Pedagogy. Percussion principals must also take MUSI 413 Percussion Pedagogy.

MUSI 207X World Music is required and fulfills Perspective X: Indigenous and Global Perspectives.

**Bachelor of Music with a Specialization in Composition and Music Technology (B-6)****First Year**

MUSI 108A, 112A-114A (MUS 107A-110A) Ensembles	1	1
MUSI 105-106 (MUS 111-112) Music Theory I, II	2	2
MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1	1
MUSI 202L (MUS 135L) Introduction to Music Literature	-	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2	2
MUSI 195 (MUS 151) Applied Study I	1	1
MUSI 180 (MUS 159) Composition I	2	2
MUST 110 (MUS 170) Digital Audio & Multitracking	2	-
Electives and General Education (WRIT 101)(ENEX 101)	3	3
	14	15

**Second Year**

MUSI 108A, 112A-114A (MUS 107A-110A) Ensembles	1	1
MUSI 205-206 (MUS 211-212) Music Theory III, IV	2	2
MUSI 235-236 (MUS 215-216) Keyboard Skills I, II	1	1
MUSI 296, sec. 1 (MUS 219) Piano Proficiency Assessment	-	0
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance	-	0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2	2
MUSI 295 (MUS 251) Applied Study II	1	1
MUSI 280 (MUS 259) Composition II	2	2
MUST 210 (MUS 271) Sequence, Syntheses, and Sampling	2	-

MUSI 301H-302H (MUS 324H-325H) Music History I, II	3	3
Electives and General Education	3	3
	17	15

**Third Year**

MUSI 335 (MUS 302) Instrumental Conducting OR	-	-
MUSI 336 (MUS 303) Choral Conducting	-	2
MUSI 308, 312, 314, 310, 331, or 322, 323, 362, MUST 427 (MUS 307, 310, 313, 314, or 350) Ensembles	1	1
MUSI 395 (MUS 351) Applied Study III	1	-
MUSI 380 (MUS 359) Composition III	3	3
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2	2
MUSI 407 (MUS 379) Counterpoint	3	-
MUSI 415 (MUS 424) Music of the 20th Century to the Present	3	-
MUSI 440 (MUS 428) Orchestration	2	-
Electives and General Education	3	6
	18	17

**Fourth Year**

MUSI 308, 312, 314, 310, 331, or 322, 323, 362, MUST 427 (MUS 307, 310, 313, 314, or 350) Ensembles	1	1
MUSI 388 (MUS 388) Concert Attendance UM	-	0
MUST 310 (MUS 429) Interactivity and Digital Signal Processing	-	2
MUSI 480 (US 459) Composition IV	3	-
MUST 410 (MUS 466) Computer Music Programming	2	-
MUSI 499 (MUS 499) Professional Project/Capstone Pjt	-	2
Upper-division music electives	2	-
Electives and General Education	7	8
	15	13

**\*MUSI 415 (MUS 424) is offered only autumn semester in odd-numbered years. Students will have the opportunity to enroll in either the third or fourth year.**

**MUSI 207X World Music is required and fulfills Perspective X: Indigenous and Global Perspectives.**

**Bachelor of Arts in Music, Specialization in Musical Studies (C-1)****First Year**

MUSI 108A, 112A-114A (MUS 107A-110A) Ensembles	1	1
MUSI 105-106 (MUS 111-112) Music Theory I,II	2	2
MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1	1
MUSI 202L (MUS 135L) Introduction to Music Literature	-	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2	2
MUSI 195 (MUS 151) Applied Study I	1	1
Elective and General Education (WRIT 101)(ENEX 101)	7	6
	14	16

**Second Year**

MUSI 108A, 112A-114A (MUS 107A-110A) Ensembles	1	1
MUSI 205-206 (MUS 211-212) Music Theory III ,IV	2	2
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance	-	0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2	2
MUSI 295 (MUS 251) Applied Study II	1	1
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3	3
LSH 151-152 (LS 151L-152L) Intro to Humanities Bible and Medieval	4	4
Electives and General Education	3	3
	16	16

**Third Year**

MUSI 308, 312, 314, 310, 331, or 322, 323, 362, MUST 427 (MUS 307, 310, 313, 314, or 350) Ensembles	1	-
MUSI 395 (MUS 351) Applied Study III	1	-
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2	2
Foreign Languages	5	5
Upper-division Music Electives	3	3
Electives and General Education	3	5
	15	15

**Fourth Year**

MUSI 388 (MUS 388) Concert Attendance UM	-	0
Upper-division academic music electives	2	2
Electives and General Education	12	12
	14	14

**Specialization in Applied Music (C-2)****First Year**

MUSI 108A, 112A-114A (MUS 107A-110A) Ensembles	1	1
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MUSI 105-106 (MUS 111-112) Music Theory I,II	2 2
MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1 1
MUSI 202L (MUS 135L) Introduction to Music Literature	- 3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2 2
MUSI 195 (MUS 151) Applied Study I	1 1
Elective and General Education (WRIT 101)(ENEX 101)	7 6
	14 16

**Second Year**

MUSI 108A, 112A-114A (MUS 107A-110A) Ensembles	1 1
MUSI 205-206 (MUS 211-212) Music Theory III ,IV	2 2
MUSI 296, sec. 1 (MUS 220) Upper-Division Required Performance	- 0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2 2
MUSI 295 (MUS 251) Applied Study II	1 1
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3 3
LSH 151L-152L (LS 151L-152L) Intro to Humanities Bible and Medieval	4 4
Electives and General Education	3 3
	16 16

**Third Year**

MUSI 308A, 312, 314, 310, 331, or 322, 323, 362, MUST 427 (MUS 307, 310, 313, 314, or 350) Ensembles	1 1
MUSI 395 (MUS 351) Applied Study III	1 1
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2 2
Foreign Languages	5 5
Electives and General Education	6 6
	15 15

**Fourth Year**

MUSI 308A, 312, 314, 310, 331, or 322, 323, 362, MUST 427 (MUS 307, 310, 313, 314, or 350) Ensembles	1 1
MUSI 388 (MUS 388) Concert Attendance UM	- 0
MUSI 495 (MUS 451) Applied Study IV	1 1
Upper-division academic music electives	3 1
Electives and General Education	10 10
	15 13

**Specialization in Music History (C-3)**

\* Students in curriculum C-3 will participate in ensembles as required by the School of Music upon achieving MUSI 195 (MUS 151) status or higher. An audition will determine semester of eligibility for acceptance into MSUI 195 (MUS 151). \* UDPR to consist of an example of scholarly writing to be approved by music faculty.

**First Year**

MUSI 108A, 112A-114A (MUS 107A-110A) Ensembles*	1 1
MUSI 105-106 (MUS 111-112) Music Theory I,II	2 2
MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1 1
MUSI 202L (MUS 135L) Introduction to Music Literature	- 3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2 2
MUSI 195 (MUS 151) Applied Study I*	1 1
MUSI 207H (MUS 136) World Music	- 3
Elective and General Education	6 3
	13 16

**Second Year**

MUSI 205-206 (MUS 211-212) Music Theory III ,IV	2 2
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance*	- 0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2 2
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3 3
LSH 151L-152L (LS 151L-152L) Intro to Humanities Bible and Medieval	4 4
Electives and General Education	4 4
	15 15

**Third Year**

MUSI 415 (MUS 424) Music of 20th Century to Present	3 -
MUSI 416-417 (MUS 436/437) Topics in History/Cultural Studies in Music	- 3
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2 2
Foreign Languages	5 5
Electives and General Education	6 6
	16 16

**Fourth Year**

MUSI 388 (MUS 388) Concert Attendance UM	- 0
MUSI 416-417 (MUS 436/437) Topics in History/Cultural Studies in Music	- 3
MUSI 499 (MUS 499) Senior Research Project Capstone Pjt	2 -
Music electives	2 -
Electives (music, non-music)	10 12
	14 15

**Specialization in Composition and Music Technology (C-4)****First Year**

MUSI 112A-114A (MUS 107A-110A) Ensembles*	1	1
MUSI 105-106 (MUS 111-112) Music Theory I,II	2	2
MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1	1
MUSI 202L (MUS 135L) Introduction to Music Literature	-	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2	2
MUSI 195 (MUS 151) Applied Study I*	1	1
MUSI 180 (MUS 159) Composition I	1	1
MUST 110 (MUS 170) Digital Audio & Multitracking	-	2
Elective and General Education	6	3
	14	16

\* Students in curriculum C will participate in ensembles as required by the School of Music upon achieving MUS 151 status or higher. An audition will determine semester of eligibility for acceptance into MUS 151.

**Second Year**

MUSE 123, 120-127 (MUS 117, 124-131) Techniques: Voice/ String Instruments in Class/ Percussion Instruments	1	1
MUSI 205-206 (MUS 211-212) Music Theory III ,IV	2	2
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance*	-	0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2	2
MUSI 280 (MUS 259) Composition II	1	1
MUST 210 (MUS 271) Sequence, Synthesis, and Sampling	2	-
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3	3
LSH 151L-152L (LS 151L-152L) Intro to Humanities Bible and Medieval	4	4
Electives and General Education	-	3
	15	16

**Third Year**

MUSE 123, 120-127 (MUS 117, 124-131) Techniques: Voice/ String Instruments in Class/ Percussion Instruments	1	1
MUSI 380 (MUS 359) Composition III	1	-
MUSI 356-357 (MUS 361-362) Form and Analysis I, II	2	2
Foreign Languages	5	5
Electives and General Education	6	6
	15	14

**Fourth Year**

MUSI 388 (MUS 388) Concert Attendance UM	-	0
MUSI 480 (MUS 459) Composition IV	1	-
MUSI 440 (MUS 428) Orchestration	2	-
Electives (music, non-music)	12	15
	15	15

\* Students in curriculum C will participate in ensembles as required by the School of Music upon achieving MUSI 195 (MUS 151) status or higher. An audition will determine semester of eligibility for acceptance into MUSI 195 (MUS 151).

**Specialization in Instrumental Jazz Studies (C-5)****First Year**

	<b>A</b>	<b>S</b>
MUSI 108, 112A, 114A (MUS 107A 110A) Ensembles	1	1
MUS 105-106 (MUSI 111-112) Music Theory I, II	2	2
*MUSI 135A-136A (MUS 115A-116A) Keyboard Skills I, II	1	1
MUSI 130L History of Jazz	3	-
MUSI 207H Music of the World's Peoples	-	3
MUSI 140-141 (MUS 137-138) Aural Perception I, II	2	2
MUSI 195 (MUS 151) Applied Study I	1	1
Electives and General Education (WRIT 101) (ENEX 101)	4	3
	14	13

**Second Year**

MUSI 108, 112A, 114A (MUS 107A-110A) Ensembles	1	1
MUSI 205-206 (MUS 211-212) Theory III, IV	2	2
MUSI 296, sec. 2 (MUS 220) Upper-Division Required Performance	-	0
MUSI 240-241 (MUS 237-238) Aural Perception III, IV	2	2
MUSI 295 (MUS 251) Applied Study II	1	1
MUSI 301H-302H (MUS 324H-325H) Music History I, II	3	3
LSH 151L-152L (LS 151L-152L) Intro to Humanities Bible and Medieval	4	4
Electives and General Education	3	3
	16	16

**Third Year**

MUSI 312, 314, 310, 331, or 322, 323, 362, MUST 427 (MUS 307, 310, 313, 314, or 350) Ensembles	1	1
MSUI 395 (MUS 351) Applied Study III	1	-
MUSI 329-330 Jazz Theory and Improv. I, II	2	2
MUSI 422 Jazz Pedagogy	-	3
Foreign Languages	5	5

Electives and General Education	6 5
	15 16
<b>Fourth Year</b>	
MUSI 308, 312, 314, 339, 332, 322, 323, 362, 467, MUST 427 (MUS 307, 310, 350) Ensembles	1 1
MUSI 388 (MUS 338) Concert Attendance UM	- 0
MUSI 420 Jazz Arranging	- 3
MUSI 499 Senior Project Upper-division academic music electives	3 -
Electives and General Education	11 11
	15 15

## Requirements for a Minor

To receive a non-teaching minor in music the student must earn at least 27 music credits to include the following:

**MUSI 202L (MUS 135L) Introduction to Music Literature 3 cr.**

**MUSI 195 (MUS 151) Applied Study I 2 cr.**

2 cr. chosen from MUSI 112A (MUS 107A) (Choir: UM University Choir), MUSI 108A (MUS 108A) (Orchestra: UMSO), MUSI 155A (MUS 104A) (Marching: Grizzly Marching Band), MUSI 114A (MUS 110A) (Band: UM Concert Band), MUSI 110A (MUS113A) (Opera Theater I), MUSI 131A (MUS 114A) (Jazz Ensemble: UM Jazz Band), MUSI 122A (MUS 150A) (Percussion Ensemble: UM), taken concurrently with MUSI 195 (MUS 151) (Applied Study I)

**MUSI 105-106 (MUS 111-112) Music Theory I,II 4 cr.**

**MUSI 140-141 (MUS 137-138) Aural Perception I, II 4 cr.**

12 cr. of music electives which must be approved in advance by the Music Department. Contact the office at the School of Music for detailed information.

## Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

## Music (MUSI) - Course Descriptions

101L, 102A, 104, 105, 106, 108A, 110A, 111A, 112A, 114A, 122A, 130L, 131A, 132L, 133L, 135A, 136A, 138, 139, 140, 141, 155A, 160A, 162A, 180, 191, 192, 195, 202L, 205, 206, 207H, 218, 225, 226, 235, 236, 240, 241, 267A, 280, 281, 282, 291, 295, 296, 301H, 302H, 304A, 308, 310, 312, 314, 322, 323, 331, 332, 333, 335, 336, 342, 343, 355, 356, 357, 362, 380, 388, 391, 392, 395, 399, 407, 408, 409, 415, 416, 417, 420, 432, 433, 435, 436, 440, 442, 467, 480, 491, 492, 495, 499, 500, 511, 520, 525, 526, 551, 554, 555, 559, 593, 595, 596, 599

## Music: Education (MUSE) - Course Descriptions

120, 121, 123, 126, 127, 272, 273, 274, 275, 333, 334, 397, 425, 497, 512, 521, 522, 581, 582, 583, 584, 585, 586, 587, 588, 589

## Music: Technology (MUST) - Course Descriptions

110, 210, 227A, 310, 410, 427

## Faculty

## Professors

Margaret Baldrige, D.M.A., Eastman School of Music, 1994

Anne Basinski, M.M. Indiana University, 1989

Fern Glass, M.M., Yale University, 1978

Steven Hesla, M.M., University of Illinois, 1972

Stephen Kalm, D.M.A., The City University of New York, 2000 (Dean)

Robert LedBetter, D.M.A., University of North Texas, 1993

Maxine Ramey, D.M.A., Michigan State University, 2010 (Director)

Margaret Schuberg, M.M., The University of Montana, 1980

Patrick Williams, M.A., Eastern Michigan University, 1973

**Associate Professors**

Jennifer Gookin Cavanaugh, D.M.A., University of Washington, 2002

David Cody, D.M., Indiana University, 2000

Christopher Hahn, D.M.A., University of Oklahoma, 2005

Kevin Griggs, D.A., University of Northern Colorado, 2004

Kimberly James, D.M., Indiana University, 2006

Luis Millan, D.M.A., Michigan State University, 1997

Charles Nichols, Ph.D., Stanford University, 2003

James Randall, Ph.D., University of Illinois, 2004

James Smart, D.M.A., Arizona State University, 2008

**Assistant Professors**

David Edmonds, M.M., Westminster Choir College, 2010

Lori Gray, D.M.A., Arizona State University, 2011

Johan Eriksson, D.M.A., University of Northern Colorado, 2012

Robert Tapper, M.M. Eastman School of Music, 1996

**Adjunct Assistant Professors**

Jeffrey Brandt, M.M., University of Montana, 2004

Nancy Cooper, D.M.A., Eastman School of Music, 1983

Beryl Lee Heyermann, Ph.D., State University New York, 2001

Creighton James, M.M., Indiana University, 2002

Benjamin Kirby, D.M.A., University of Wisconsin, 1999

Christopher Kirkpatrick, D.M.A., Michigan State University, 2011

Amy Smart, M.M.E., Arizona State University, 2011

**Instructor**

Roger Logan, B.M., University of Idaho, 1976

Patrick McNalley, M.M. Indiana University, 2004

Tommy Pertis, M.M., University of Montana, 2011

**Emeritus Professors**

Thomas Cook, D.A., University of Northern Colorado

Gerald H. Doty, Ed.D., Indiana University

Esther England, B.A., The University of Montana

William Manning, M.M., Drake University

Roger Dale McDonald, M.M., Yale University, 1973

Joseph Mussulman, Ph.D., Syracuse University

Florence Reynolds, D.M.A., Eastman School of Music

Donald W. Simmons, Ed.D., University of Illinois

## School of Theatre & Dance

- . Special Degree Requirements
- . Suggested Course of Study
- . Courses
- . Faculty

Jere Hodgkin, Director

The School of Theatre & Dance is accredited by the National Association of Schools of Theatre (NAST) and is a member of the Association for Theatre in Higher Education (ATHE) and the United States Institute for Theatre Technology (USITT). The school is housed in the Performing Arts and Radio/Television Center, which includes three theatre/dance performance spaces and television/radio studios. The program is production-oriented with approximately ten major productions presented each year including contemporary, historical, period, musical, and experimental plays, as well as dance concerts. The Montana Repertory Theatre, a professional touring company based at UM, often involves students both on and off stage. The faculty is strong, possessing a diversity of educational and professional theatre and dance backgrounds.

The Bachelor of Arts with a major in Dance allows the student who plans to enter a dance career to select another major to complement that objective. The Bachelor of Arts with a major in Theatre provides the student with a broad liberal arts education and a general focus in theatre. The degree allows the student to complete an additional major and may form the basis for further training on the graduate level. The Bachelor of Arts with a major in Theatre and an area of specialization in Education Endorsement Preparation is designed for the student seeking teaching endorsement in the field of theatre. The Bachelor of Fine Arts with a major in Dance or Theatre is a professionally oriented degree designed for the student who plans to pursue a career in theatre, dance, or a related field. Areas of specialization are: Acting, Design/Technology, Choreography and Performance, and Teaching. Graduate programs lead to the Master of Arts in Theatre or Integrated Arts and Education and the Master of Fine Arts in Theatre with areas of specialization in Acting, Design/Technology, or Directing.

### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

### Advisement

Each Theatre & Dance major must have a faculty advisor who is assigned by the School and who is usually from the student's area. The School, through its advisement program, often recommends non-theatre and non-dance electives and specific General Education courses to the student depending on the student's area. Majors may not take core or area-required courses on a credit/no credit basis.

### Auditions and Portfolio Reviews

Actors, dancers, designers and technicians undergo periodic review in the form of auditions or portfolio presentations. These ongoing evaluations provide each student with the opportunity and challenge of individualized critiques from faculty and professional staff.

### Senior Project

A senior project is required of all students. The senior project is usually production-related and has both practical and written components. Requirements for the project vary and are outlined in the School of Theatre & Dance Handbook.

### Writing Expectation

All students, unless exempted, must pass an approved writing course before attempting the Writing Proficiency Assessment (WPA). Students are exempted from this requirement by transferring more than 27 semester credits at the time of their initial registration at the University.

The following Theatre & Dance course is designated as a Writing course for 2013-2014. Students are cautioned that approved courses may change from year to year. To be used for General Education, a course must be listed as approved in the catalog and in the Course Schedule for the semester a student registers for it.

- . THTR 330H (DRAM 320H) Theatre History I

The following Theatre & Dance courses are designated as upper-division Writing courses for 2013-2014. Students are cautioned that approved courses may change from year to year.

- . DANC 494 (DAN 494) Seminar/Workshop (Jr./Sr. Seminar)
- . THTR 331Y (DRAM 321H) Theatre History II



**Bachelor of Arts with a major in Dance**

The following courses constitute the complete Dance requirements for the Bachelor of Arts degree:

Dance	Credits
DANC 165 (DAN 108) Dance Forms: African	2
DANC 205 (DAN 320) Improvisation	2
DANC 220A (DAN 201A) Beginning Composition	2
DANC 225 (DAN 202) Rehearsal and Performance (performing in one piece equals one credit)	2
DANC 298 (DAN 428) Internship: Children's Dance	1
DANC 300 (DAN 300) Modern III (or higher level)	15
DANC 305 (DAN 420) Contact Improvisation	2
DANC 310 (DAN 304) Ballet III (or higher level)	8
DANC 320 (DAN 301) Intermediate Composition	2
DANC 334 (DAN 334) Dance History	3
DANC 360L (DAN 335L) World Dance	3
DANC 380 (DAN 340) Science of Dance Movement	3
DANC 399 (DAN 397) Junior Creative/Research Project (students must complete projects for graduation)	3
DANC 440 (DAN 425) Dance Pedagogy	3
DANC 494 (DAN 494) Seminar/Workshop	3
DANC 497 (DAN 427) Methods: Teaching Movement in Schools	3
DANC 498 (DAN 497) Senior Thesis/Creative Project (students must complete projects for graduation)	3
Theatre	
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1
THTR 107A (DRAM 107A) section 02 or 05 Theatre Production I: Construction Crew (Costume) or 245 (DRAM 340) Intermediate Costume Construction	3
THTR 371 (DRAM 374) section 02 Stage Management Practicum I: Dance	1
Total	65

There is an Admission Audition which a prospective major must pass at the end of the first year to continue in the program. All students must take DANC 194: Freshman Seminar prior to auditioning for the major.

**Bachelor of Fine Arts with a major in Dance**

The School of Theatre & Dance offers two areas of dance specialization: choreography and performance and teaching. Each requires the same 47 credits in core courses, plus additional specified credits in each area of specialization. All majors are required to complete a junior and a senior creative or research project and a production project.

**Core Courses**

Dance	Credits
DANC 205 (DAN 320) Improvisation	2
DANC 220A (DAN 201A) Beginning Composition	2
DANC 298 (DAN 428) Internship: Children's Dance	1
DANC 305 (DAN 420) Contact Improvisation	2
DANC 310 (DAN 304) Ballet III (or higher level)	12
DANC 334 (DAN 334) Dance History	3
DANC 360L (DAN 335L) World Dance	3
DANC 380 (DAN 340) Science of Dance Movement	3
DANC 399 (DAN 397) Junior Creative/Research Project (students must complete project for graduation)	3
DANC 406 (DAN 426) Dance as a Healing Art	2
DANC 440 (DAN 425) Dance Pedagogy	3
DANC 494 (DAN 494) Seminar/Workshop	3
DANC 498 (DAN 497) Senior Thesis/Creative Research Project (students must complete projects for graduation)	3
Theatre	
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1
THTR 107A (DRAM 107A) section 02 or 05, Theatre Production I: Construction Crew (Costume) or 245 (DRAM 340) Intermediate Costume Construction	3
THTR 371 (DRAM 378) section 02 Stage Management Practicum I: Dance	1
Total	47

**Choreography and Performance Specialization**

To be taken in addition to core courses:

Dance	Credits
DANC 225 (DAN 202) Rehearsal and Performance (performing in one piece equals one credit)	2
DANC 280 (DAN 329) Dance Conditioning: Pilates	1
DANC 300 (DAN 300) Modern III (or higher level)	6
DANC 320 (DAN 301) Intermediate Composition	2

DANC 400 (DAN 400) Modern IV	6
DANC 404 (DAN 429) Advanced Techniques in Modern Dance	6
DANC 405 (DAN 421) Advanced Improvisation	2
<b>Health and Human Performance</b>	<b>Credits</b>
Students should choose one Activity Class in Aquatics or Fitness (cross-training; by advisement)	1
Subtotal	26
Core Courses	47
Total	73

**There is an admission audition which a prospective major must pass at the end of the first year to continue in this program. All students must take DANC 194 (DAN 194): Freshman Seminar prior to auditioning for the major.**

#### Teaching Specialization

**To be taken in addition to core courses:**

<b>Dance</b>	<b>Credits</b>
DANC 300 (DAN 300) Modern III (or higher level)	18
DANC 345 (DAN 328) Teaching for the Disabled	1
DANC 440 (DAN 425) section 02 Dance Pedagogy: Continuing	3
DANC 446 (DAN 491) Teaching Projects (assisting in a technique class for one semester)	2
DANC 497 (DAN 427) Methods: Teaching Movement in Schools	6
Subtotal	30
Core Courses	47
Total	77

**There is an admission audition which a prospective major must pass at the end of the first year to continue in this program. All students must take DANC 194: Freshman Seminar prior to auditioning for the major.**

#### Junior/Senior Projects

**Junior and senior projects must be planned with the student's project advisor and all journals and papers will be submitted to that advisor. All choreography and performance B.F.A. candidates are required to choreograph for both projects, but the senior project must be a piece of choreography produced off-campus in the Missoula community. Teaching B.F.A. candidates must choreograph for the junior project and complete a teaching project in the Missoula community for the senior project. Students also are required to meet the campus-wide General Education requirements. Students are urged to consult with their advisors before General Education courses are selected.**

#### Bachelor of Arts with a major in Theatre

**The following courses constitute the complete Theatre requirements for the Bachelor of Arts degree:**

<b>Theatre</b>	<b>Credits</b>
THTR 102A (DRAM 103A) Introduction to Theatre Design	3
THTR 103 (DRAM 108) Intro to House Management	1
THTR 106A (DRAM 106A) Theatre Production I: Run Crew	1
THTR 107A (DRAM 107A) Theatre Production I: Construction Crew	3
THTR 202 (DRAM 202) Stagecraft I: Lighting/Costumes	3
THTR 203 (DRAM 203) Stagecraft II: Scenery/Props	3
THTR 207 (DRAM 207) Theatre Production II: Construction Crew	3
THTR 220 (DRAM 214) Acting I or THTR 120A (DRAM 111A) Introduction to Acting I	3
THTR 235L (DRAM 220L) Dramatic Literature I	3
THTR 330H (DRAM 320H) Theatre History I	3
THTR 331Y (DRAM 321H) Theatre History II	3
THTR 375 (DRAM 379) Directing I	3
THTR 499 Senior Project	1
Theatre/Dance/Media Arts electives (by advisement)	9
Total	42

#### Education Endorsement Preparation Specialization

**The Education Endorsement Preparation specialization is designed for the student seeking an endorsement in the major teaching field of Theatre.**

<b>Dance</b>	<b>Credits</b>
DANC 346 (DAN 327) Methods: Dance in K-8	2
<b>Theatre</b>	<b>Credits</b>
THTR 102A (DRAM 103A) Introduction to Theatre Design	3
THTR 103 (DRAM 108) Introduction to House Management	1

THTR 106A-107A (DRAM 106A-107A) Theatre Production (Running and Production Crews)	4
THTR 202 (DRAM 202) Stagecraft I: Lighting/Costumes	3
THTR 203 (DRAM 203) Stagecraft II: Scenery/Props	3
THTR 210 (DRAM 210) Voice and Speech I	2
THTR 220-221 (DRAM 214-215) Acting I, II	6
THTR 235L (DRAM 220L) Dramatic Literature I	3
THTR 249 (DRAM 244) Stage Makeup	2
THTR 330H-331Y (DRAM 320H-321H) Theatre History I, II	6
THTR 339 (DRAM 327) Drama in Elementary Education	2
THTR 370 (DRAM 371) Stage Management I	2
THTR 375 (DRAM 379) Directing I	3
THTR 439 (DRAM 402) Methods of Teaching Theatre	2
THTR 499 Senior Project	1
Total	45

**For endorsement to teach Theatre, a student also must gain admission to Teacher Education Program and meet all the requirements for teaching licensure (see the College of Education and Human Sciences section of this catalog).**

**The demand in Montana high schools for teaching of courses in this field is limited. Students should complete the required second endorsement (major or minor) in a field other than Economics, Geography, Psychology or Sociology.**

#### **Bachelor of Fine Arts with a major in Theatre**

**Normally, a student should declare intent to pursue the B.F.A. degree no later than the beginning of the second year of a four-year program. The student must declare an area of specialization: either acting or design/technology.**

**Requirements for these areas are specified below.**

**A student may elect a special concentration in directing, music theatre, or another discipline in addition to the B.F.A. core and area-specialization requirements. The program is designed in consultation with the student's advisor and must be approved by the faculty. The special concentration may require five years to complete.**

**The following courses are required of all B.F.A. students majoring in Theatre with an area of specialization in Acting or Design/Technology:**

#### **Core Courses**

<b>Theatre</b>	<b>Credits</b>
THTR 103 (DRAM 108) Introduction to House Management	1
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1
THTR 107A (DRAM 107A) Theatre Production I: Construction Crew	3
THTR 202 (DRAM 202) Stagecraft I: Lighting/Costumes	3
THTR 203 (DRAM 203) Stagecraft II: Scenery/Props	3
THTR 206 (DRAM 206) Theatre Production II: Running Crew	1
THTR 220 (DRAM 214) Acting I or THTR 120A (DRAM 111A) Introduction to Acting I (if Design/Tech)	3
THTR 235L (DRAM 220L) Dramatic Literature	3
THTR 330H-331Y (DRAM 320H-321H) Theatre History I, II	6
THTR 375 (DRAM 379) Directing I	3
Total	27

#### **Acting Specialization**

**Students who intend to pursue the acting specialization will normally enter the University as Bachelor of Arts students in Theatre.**

**To be taken in addition to core courses:**

<b>Theatre</b>	<b>Credits</b>
THTR 210 (DRAM 210) Voice and Speech I	2
THTR 211 (DRAM 211) Voice and Speech II	2
THTR 221 (DRAM 215) Acting II	3
THTR 229A (DRAM 216A) Production Acting I	1
THTR 249 (DRAM 244) Stage Makeup	2
THTR 310 Voice and Speech III	3
THTR 315 (DRAM 312) Physical Performance Skills I	2
THTR 316 (DRAM 313) Physical Performance Skills II	2
THTR 320 (DRAM 314) Acting III	3
THTR 321 (DRAM 315) Acting IV	3
THTR 329 (DRAM 316) Production Acting II	1
THTR 415 (DRAM 412) Physical Performance Skills III	3
THTR 420 (DRAM 414) Acting V	3
THTR 421 (DRAM 415) Acting VI	3

THTR 425 (DRAM 440) Acting VII: Studio	3
THTR 426 Acting VIII: Company	3
THTR 429 (DRAM 416) Production Acting III	1
THTR 481 (DRAM 435) Advanced Acting: Personal Performance	3
THTR 484 (DRAM 439) Advanced Acting: Professional Skills	3
THTR 499 Senior Project	1
<b>Choose one:</b>	
THTR 311 (DRAM 311) Voice and Speech IV	3
THTR 410 (DRAM 420) Singing for Actors	2
THTR 416 (DRAM 413) Physical Performance Skills IV	3
THTR 482 (DRAM 436) Advanced Acting: Solo Performance	3
MAR 470 Advanced Acting for Film I	3
Subtotal	49-50
Core Courses	27
Total	76-77

### Design/Technology Specialization

Students wishing to pursue a B.F.A. with a specialization in design/technology must:

1. Complete a one-year residency at the UM-Missoula campus which includes a minimum of 12 credits in design/technology.
2. Attain a cumulative 2.5 overall GPA and a 3.0 GPA in design/technology coursework.
3. Present a theatre resume and portfolio consisting of class and production work.
4. Prepare a written statement explaining their educational and professional goals.

Students who intend to pursue the design/technology specialization will normally enter the University as Bachelor of Arts students in Theatre.

To be taken in addition to core courses:

Theatre	Credits
THTR 102A (DRAM 103A) Introduction to Theatre Design	3
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1
THTR 107A (DRAM 107A) Theatre Production I: Construction Crew (repeat once)	6
THTR 155 (DRAM 104) Drawing Fundamentals for Theatre	3
THTR 206 (DRAM 206) Theatre Production II: Running Crew	1
THTR 255 (DRAM 231) Drafting for the Theatre I	3
THTR 307 (DRAM 307) Production Construction I	3
THTR 370 (DRAM 371) Stage Management	2
Junior Project: THTR 308 (DRAM 308) Production Team I or 309 (DRAM 309) Production Design I	2
THTR 345 (DRAM 341) Flat Pattern Design & Drafting or 355 (DRAM 332) Computer Aided Drafting & Application	3
Senior Project: THTR 408 (DRAM 308) Production Team II or 409 (DRAM 409) Production Design II	3
Electives (minimum of 12 upper-division; by advisement)	18
Subtotal	48
Core Courses	27
Total	75

### Junior Projects

A junior project is required of all B.F.A. design/technology specialization students. The junior project is usually production-related and has both practical and written components. Requirements for the project are outlined in the School of Theatre & Dance Handbook.

### Suggested Course of Study

The recommended curriculum for the B.A., major in Dance is:

First Year	
DANC 194 (DAN 195) Seminar/Workshop	1
DANC 200A (DAN 200A) Modern II (or DANC 100A (DAN 100A) Modern Dance I, if needed) (two semesters)	4
DANC 220A (DAN 201A) Beginning Composition	2
DANC 210A (DAN 204A) Ballet II (two semesters)	4
DANC 215A (DAN 207A) Jazz Dance II	2
Electives and General Education	17
Total	30
Second Year	
DANC 210A (DAN 204A) Ballet II (two semesters)	4
DANC 300 (DAN 300) Modern III (or DANC 200A (DAN 200A) Modern II, if needed) (two semesters)	6
DANC 320 (DAN 301) Intermediate Composition	2
DANC 315 (DAN 307) Jazz Dance III	2

DANC 360L (DAN 335L) World Dance	3
THTR 371 (DRAM 374) section 02 Stage Management Practicum I: Dance	1
Electives and General Education	12
Total	30

**The recommended curriculum for the Choreography and Performance or Teaching student in the B.F.A., major in Dance is:**

**First Year**

DANC 194 (DAN 195) Seminar/Workshop	1
DANC 210A (DAN 204A) Ballet II or DANC 310 (DAN 304) Ballet III (two semesters)	4
DANC 300 (DAN 300) Modern III or DANC 200A (DAN 200A) Modern II (two semesters)	6
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1
THTR 107A (DRAM 107A) section 02 or 05 Theatre Production I: Construction Crew (Costume) or THTR 245 (DRAM 340) Intermediate Costume Construction	3
Electives and General Education	9
Total	24

**Second Year**

DANC 205 (DAN 320) Improvisation	2
DANC 220A (DAN 201A) Beginning Composition	2
DANC 225 (DAN 202) Rehearsal and Performance (performing in one piece equals one credit)	2
DANC 280 (DAN 329) Dance Conditioning: Pilates (two semesters)	2
DANC 300 (DAN 300) Modern III or DANC 200A (DAN 200A) Modern II (two semesters)	6
DANC 310 (DAN 304) Ballet III or DANC 210A (DAN 204A) Ballet II (two semesters)	4
DANC 380 (DAN 340) Science of Dance Movement	3
THTR 371 (DRAM 371) section 02 Stage Management Practicum I: Dance	1
Electives and General Education	10
Total	32

**The recommended curriculum for the B.A., major in Theatre is:**

**First Year**

THTR 102A (DRAM 103A) Introduction to Theatre Design	3
THTR 103 (DRAM 108) Introduction to House Management	1
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1
THTR 107A (DRAM 107A) Theatre Production I: Construction Crew	3
THTR 202 (DRAM 202) Stagecraft I: Lighting/Costumes	3
THTR 203 (DRAM 203) Stagecraft II: Scenery/Props	3
THTR 220 (DRAM 214) Acting I or 120A (DRAM 111A) Introduction to Acting I	3
THTR 235L (DRAM 220L) Dramatic Literature I	3
Electives and General Education	12
Total	32

**Second Year**

THTR 207 (DRAM 207) Theatre Production II: Construction Crew	3
THTR 330H (DRAM 320H) Theatre History I	3
THTR 331Y (DRAM 321H) Theatre History II	3
Electives and General Education	23
Total	32

**The recommended curriculum for the Acting student in the B.F.A., major in Theatre is:**

**First Year**

THTR 103 (DRAM 108) Introduction to House Management	1
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1
THTR 107A (DRAM 107A) Theatre Production I: Construction Crew	3
THTR 202 (DRAM 202) Stagecraft I: Lighting/Costumes	3
THTR 203 (DRAM 203) Stagecraft II: Scenery/Props	3
THTR 220-221 (DRAM 214-215) Acting I, II	6
THTR 235L (DRAM 220L) Dramatic Literature I	3
Electives and General Education	10
Total	30

**Second Year**

THTR 206 (DRAM 206) Theatre Production II: Running Crew	1
THTR 210-211 (DRAM 210-211) Voice and Speech I, II	4
THTR 249 (DRAM 244) Stage Makeup	2
THTR 315-316 (DRAM 312-313) Physical Performance Skills I, II	4
THTR 320-321 (DRAM 314-315) Acting III, IV	6
THTR 330H (DRAM 320H) Theatre History I	3
THTR 331Y (DRAM 321H) Theatre History II	3
Electives and General Education	7
Total	30

**The recommended curriculum for the Design/Technology student in the B.F.A., major in Theatre is:**

**First Year**

THTR 102A (DRAM 103A) Introduction to Theatre Design	3
THTR 103 (DRAM 108) Introduction to House Management	1
THTR 106A (DRAM 106A) Theatre Production I: Running Crew (two semesters)	2
THTR 107A (DRAM 107A) Theatre Production I: Construction Crew (two semesters)	6
THTR 155 (DRAM 104) Drawing Fundamentals for Theatre	3
THTR 202 (DRAM 202) Stagecraft I: Lighting/Costumes	3
THTR 203 (DRAM 203) Stagecraft II: Scenery/Props	3
THTR 255 (DRAM 231) Drafting for the Theatre I	3
Electives and General Education	6
<b>Total</b>	<b>30</b>

**Second Year**

THTR 107A (DRAM 107A) Theatre Production I Construction Crew	3
THTR 206 (DRAM 206) Theatre Production II: Running Crew (two semesters)	2
THTR 235L (DRAM 220L) Dramatic Literature	3
THTR 307 (DRAM 307) Production Construction I	3
THTR 345 (DRAM 341) Flat Pattern Design & Drafting or THTR 355 (DRAM 332) Computer Aided Drafting & Application	3
Electives and General Education	18
<b>Total</b>	<b>32</b>

**Requirements for a Minor****Minor in Dance**

**29-30 credits are required.**

<b>Dance</b>	<b>Credits</b>
DANC 100A (DAN 100A) Modern Dance I (or appropriate level)	4
DANC 110A (DAN 104A) Ballet I (or appropriate level)	4
DANC 115A (DAN 107A) Jazz Dance I (or appropriate level)	2
DANC 200A (DAN 200A) Modern II	4
DANC 210A (DAN 204A) Ballet II (or appropriate level)	2
DANC 220A (DAN 201A) Beginning Composition	2
DANC 225 (DAN 202) Rehearsal and Performance (performing in one piece equals one credit)	2
DANC 300 (DAN 300) Modern III	3
DANC 334 (DAN 334) Dance History	3
DANC 205 (DAN 320) Improvisation and DANC 305 (DAN 420) Contact Improvisation	4
or	
DANC 280 (DAN 329) Dance Conditioning: Pilates and DANC 380 (DAN 340) Science of Dance Movement	4
or	
DANC 298 Internship: Children's Dance (DAN 428) and 406 (DAN 426) Dance as a Healing Art	3
<b>Total</b>	<b>29-30</b>

**Minor in Dance, Specialization in Education**

**20-21 credits are required.**

<b>Dance</b>	<b>Credits</b>
DANC 220A (DAN 201A) Beginning Composition	2
DANC 298 (DAN 428) Internship: Children's Dance	2
DANC 300 (DAN 300) Modern III or DANC 310 (DAN 304) Ballet III	2-3
DANC 360L (DAN 335L) World Dance	3
DANC 440 (DAN 425) Dance Pedagogy	3
DANC 497 (DAN 427) Methods: Teaching Movement in Schools	6
Students should choose one course in Jazz, Tap, Social Dance, Cultural/World Dance or Traditional/Indigenous Dance (as available; by advisement)	2
<b>Total</b>	<b>20-21</b>

**This minor leads to an Area of Permissive Special Competency in Dance Education for those attaining or holding a Montana teaching license (see the College of Education and Human Sciences section of the current version of The University of Montana Catalog)**

**Minor in Theatre**

**A student may focus the minor in a particular area such as acting, costume, etc. 27 credits, including a common core of 16 credits, are required for the minor. An advisor in Theatre & Dance should be consulted for guidelines regarding the specific focus.**

<b>Theatre</b>	<b>Credits</b>
THTR 102A (DRAM 103A) Introduction to Theatre Design	3
THTR 106A (DRAM 106A) Theatre Production I: Running Crew	1

THTR 107A (DRAM 107A) Theatre Production I: Construction Crew	3
THTR 202 or 203 (DRAM 202 or 203) Stagecraft I or II	3
THTR 235L (DRAM 220L) Dramatic Literature I	3
THTR 330H (DRAM 320H) Theatre History I	3
Focused area (by advisement)	11
Total	27

## Courses

**R** - before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Creative Pulse (CP) - Course Descriptions

582, 583, 584, 585, 586, 587, 588, 589, 598, 596, 597, 599

### Dance (DANC) - Course Descriptions

100A, 110A, 115A, 118A, 160A, 165A, 170A, 191, 194, 200A, 205, 210A, 215A, 220A, 225, 234L, 280, 294, 298, 300, 305, 310, 315, 320, 322, 325, 334, 345, 346, 360L, 380, 391, 392, 394, 399, 400, 404, 405, 406, 410, 440, 446, 491, 492, 494, 497, 498

### Theatre (THTR) - Course Descriptions

101L, 102A, 103, 106A, 107A, 113A, 120A, 121A, 155, 191, 202, 203, 205, 206, 207, 210, 211, 220, 221, 229A, 235L, 239, 245, 249, 255, 264, 292, 305, 306, 307, 308, 309, 310, 311, 315, 316, 320, 321, 329, 330H, 331Y, 332, 335H, 336, 339, 340, 345, 346, 350, 353, 355, 356, 360, 365, 370, 371, 375, 380, 391, 392, 398, 405, 406, 407, 408, 409, 410, 415, 416, 420, 421, 423, 425, 426, 429, 439, 440, 445, 447, 449, 450, 460, 465, 470, 472, 475, 476, 481, 482, 483, 484, 490, 491, 492, 494, 498, 499, 501, 502, 505, 506, 507, 508, 509, 510, 512, 513, 514, 515, 517, 520, 521, 525, 526, 527, 528, 529, 530, 531, 532, 535, 539, 540, 542, 545, 546, 550, 552, 553, 555, 556, 560, 562, 565, 567, 570, 572, 574, 577, 578, 580, 581, 594, 595, 596, 597, 598, 599, 609, 645, 646, 675, 677, 690, 699

## Faculty

### Professors

Randy Bolton, Ph.D., Florida State University, 1981

Nicole Bradley Browning, M.F.A., Arizona State University, 2000

Alessia Carpoca, M.F.A., Northwestern University, 2003

Mark Dean, M.F.A., Wayne State University, 1991

Greg Johnson, M.F.A., New York University, 1974

Karen Kaufmann, M.A., Antioch University, 1993

Michael Monsos, M.F.A., The University of Montana, 2001

### Associate Professors

Michele Antonioli, M.F.A., Texas Christian University, 1988

Jillian Campana, Ph.D., The University of Montana, 2005

John Kenneth DeBoer, M.F.A., Virginia Commonwealth University, 2007

Heidi Jones Eggert, M.F.A., Arizona State University, 2000

Jere Lee Hodgin, M.F.A., University of Georgia, 1973 (Director)

### Assistant Professors

Laura Alvarez, M.A., The University of Montana, 2012

Bernadette Sweeney, Ph.D., University of Dublin, 2002

### Emeritus Professors

Juliette Crump, M.A., George Washington University, 1975

Christine Milodragovich, M.A., Washington State University, 1973

Bill Raoul, M.A., University of Washington, 1969

## Davidson Honors College

- . Curriculum
- . Assessment of Personal and Academic Goals
- . Admission
- . Courses
- . Faculty

James McKusick, Dean

The Davidson Honors College is a campus-wide association of faculty and students united by a common concern for academic and personal excellence. Its mission is to foster intellectual and civic values, and to support the best possible teaching and learning circumstances for participating faculty and students.

The College offers an academic and social home to talented and motivated students as they pursue their undergraduate education. Students from all major areas in the College of Arts and Sciences and the professional schools are welcome, as well as students who are undecided about a major. Honors is not a major in itself, but an enhancement to General Education in the liberal arts and sciences as well as to virtually all undergraduate majors on campus.

The Honors College building, at the center of the campus, provides a large student lounge, study rooms, classrooms and a computer center for student use. The Honors Student Association plans and conducts a variety of social and academic activities as well as community service projects throughout the year. Special Honors residence hall floors and living units are available.

The Davidson Honors College also sponsors The University of Montana Office for Civic Engagement, an office that coordinates student service activities in the community and beyond, and supports the integration of community service experience into the academic curriculum.

### Curriculum

In accordance with our mission, the DHC is committed to offering students the additional resources, challenges, and encouragement to be active and collaborative learners. DHC students are expected to:

- . be intellectually curious;
- . develop skills in critical thinking, analytic reasoning, and problem solving;
- . increase their abilities to write and speak effectively;
- . acquire skills and habits of community and public service;
- . develop research and life-long learning skills and habits.

Honors students are expected to pursue these student learning outcomes inside the classroom and out, in their work and their recreation, volunteer service, membership in clubs and organizations, participation in campus and civic governance, independent study, pursuit of their hobbies and interests, and formal course work.

Honors courses are limited in enrollment to 20 students and usually are conducted in a discussion or seminar format. They emphasize critical thinking, the development of written and oral communication skills, direct contact with the faculty, and use of original texts or "hands-on," participatory experience. These courses are taught by outstanding faculty selected according to their department's standards of excellence. Course offerings vary somewhat and represent many academic departments and subject areas. Honors courses often fulfill General Education and many common major requirements.

At the junior and senior level students are offered a selection of Honors seminars. These seminars are open to students from all disciplines. The aim of these seminars is to assist students in applying different methods of inquiry and research, in using the insights of various disciplines, in integrating the students' knowledge, and in developing well-informed personal stances toward the material and issues studied.

In their senior year, students complete an Honors thesis or research project, assuming responsibility, together with a faculty mentor, for an original scholarly research or creative project. This project may coincide with a departmental requirement, and is intended to prepare students to fulfill roles of intellectual, moral, and cultural leadership as they realize their places in society.

### Assessment of Personal and Academic Goals

A college education invites students to formulate goals and reflect on their progress toward attaining them. Davidson Honors College



students are responsible for evaluating their aims and attainments from year to year in collaboration with an advisor. Entering students are asked to assess their abilities and resources and begin to formulate interests and aims in light of the student learning outcomes mentioned previously.

#### Requirements

Davidson Honors College students are required to complete a minimum of seven Honors courses, including HC 121L and a senior Honors research project (which may be counted as one Honors course). An Honors section of *Introduction to Humanities*, LSH 151L or LSH 152L (LS 151L or LS 152L), may be counted as equivalent to HC 121L. HC 120, *Introduction to Honors*, also is required of all first-year students. As this is a one-credit course, it does not count toward the seven Honors courses required to graduate. Details are available in the Davidson Honors College office or on the DHC web site at [www.dhc.umt.edu](http://www.dhc.umt.edu).

It also is recommended that all students include in their curriculum at least one course or independent study project that includes an experience of volunteer community service or study abroad.

To maintain good standing in the Davidson Honors College, students must take at least one Honors course per year and maintain an overall cumulative grade point average of 3.0 or above. Academic progress is reviewed each semester. Those whose grades are below the 3.0 standard are given an academic warning. A student whose cumulative grade point average falls below 3.0 is placed on academic probation and remains in this status until the cumulative grade point average rises to 3.0 or higher. Suspension from the Honors College occurs when the term grade point average of a student on probation is below 3.0. A suspended student may be reinstated when the cumulative grade point average rises to 3.0 or higher.

Graduation through the Davidson Honors College requires a cumulative grade point average of 3.0 or higher, and 3.4 in the major field. Upon successful completion of the requirements, students will receive their bachelor degrees as "University Scholars" in their respective majors and have this distinction noted on their diplomas. Graduation through the Davidson Honors College is not connected with the distinctions "with honors" and "with high honors" bestowed on the recommendation of major departments according to certain grade point averages and/or on the basis of exams or other means of assessment in the senior year.

#### Scholarships

The Davidson Honors College administers the Presidential Leadership Scholarships for incoming freshmen, and several other scholarship programs for currently enrolled students. For further information about these scholarship programs, contact the Honors College. Honors students and those transferring from other institutions are eligible for the general scholarship program. For further information, contact the Financial Aid Office. The Honors College also coordinates University of Montana participation in the National Merit Scholarship program. Four-year awards are available to National Merit finalists and semi-finalists who have indicated UM as their first choice for attending college. Interested students should contact the Honors College for details as soon as they know their status in the competition.

#### Admission to the DHC

Students applying to the Davidson Honors College should show evidence of academic talent and motivation. Generally, a minimum high school GPA of 3.5 is expected, as well as an ACT score of 27 or higher, or SAT combined score of 1800. These criteria are not absolute, and highly motivated students are encouraged to apply.

Applications particularly are welcomed from older or non-traditional students and students from varied racial and ethnic backgrounds. College transfer students with a record of strong academic performance (GPA of 3.5 or higher) also are welcome to apply. *The Davidson Honors College Application for Admission* must be postmarked or submitted online by December 31. Note that all applicants to the Davidson Honors College also must complete a separate application for admission to The University of Montana-Missoula.

#### Presidential Leadership Scholarships

The Presidential Leadership Scholarships are The University of Montana's premier academic scholarships, recognizing outstanding talent, academic performance, leadership, and contribution to the community. These awards are renewable for four years, subject to satisfactory performance by the student. Each scholarship includes a full or partial tuition waiver, the value of which varies according to the amount of tuition each year.

Eligible candidates for the Presidential Leadership Scholarship must be recent high school graduates who have not previously enrolled as a regular college or university student. Recent finalists for the Presidential Leadership Scholarship posted an average of 3.98 GPA, SAT combined score of 2100, and ACT composite score of 32.

All Davidson Honors College applications for admission received by December 31 of each year will be considered for the Presidential Leadership Scholarship.

#### Contact:

The Davidson Honors College  
The University of Montana

Missoula, MT 59812  
 Phone: (406) 243-2541  
 e-mail: [dhc@umontana.edu](mailto:dhc@umontana.edu)  
 web site: [www.dhc.umt.edu](http://www.dhc.umt.edu)

## Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Note:** All HC courses require consent of the Honors College unless otherwise noted.

Honors College (HC) - Course Descriptions

120, 121L, 122E, 194, 195, 196, 198, 202, 270, 294, 295, 298, 320, 395, 396, 398, 399, 495, 496, 498, 499

Faculty

### Professor

James McKusick, Ph.D, Yale University, 1984 (Dean)

Lecturer

Erin Brown Saldin, M.F.A., University of Virginia, 2007 (English)

## Graduate School

J.B. Alexander Ross, Ph.D. - Dean of the Graduate School

The College of Arts and Sciences and the professional schools offer graduate study at both the masters and doctoral level. Admission and graduation for these graduate programs are administered by the Graduate School. Information on specific programs should be directed to the appropriate college or school. Please refer to the graduate school website for degree programs offered <http://life.umt.edu/grad>.

## Interdisciplinary Program

The following courses are designed for doctoral students in the Individual Interdisciplinary Program who may not find appropriate course numbers available from an existing doctoral discipline.

### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Graduate Studies-Interdisciplinary (GS) - Course Descriptions

696, 697, 699

## School of Journalism

- . Special Degree Requirements
- . Courses
- . Faculty

### Denise Dowling, Interim Dean

Dennis Swibold, Chair, Department of Print Journalism

Ray Fanning, Chair, Department of Radio-Television

Courses in the School of Journalism examine the news media emphasizing their history, privileges and responsibilities and provide instruction in skills required for careers with newspapers, radio and television stations, magazines, websites, print and online news services and related agencies. The School of Journalism offers Bachelor of Arts and Master of Arts degrees in journalism. Students select courses in writing, reporting, producing, directing, editing and still and video photography. They train to work across multiple platforms including online, audio, video, newspaper and magazine.

A quality education in journalism is built on a strong liberal arts foundation. Students at the pre-professional level are required to take courses outside journalism, including courses in Political Science, Business and History. They must complete the University's general education requirements as well.

For further information about the Master's program in Environmental and Natural Resource Journalism, contact the Director of Graduate Studies in Journalism, Henriette Löwisch, School of Journalism, University of Montana, Missoula, MT 59812, or (406) 243-2227.

#### Pre-Professional Program

In the first two years of study students are enrolled in pre-journalism or pre-radio-television and take courses primarily in the liberal arts and sciences. Journalism and radio-television courses in the pre-professional curriculum must be taken at University of Montana-Missoula, though the department chairs may occasionally accept substitutes taught at another schools with programs accredited by the Accrediting Council for Education in Journalism and Mass Communications. All non-journalism courses in the curriculum may be completed at any college or university. Students in the first two years of study may enter the pre-professional program during either autumn or spring semester.

#### Professional Program

Students may apply for admission to the two-year professional programs in journalism and R-TV once they have successfully completed the pre-professional curriculum. Applications are accepted in autumn and spring. Deadlines for applications are October 1 and March 1.

Students may apply for admission to the professional program in either semester, but must have completed at least 45 credits before applying. In addition, applicants must have either completed all courses listed in the pre-professional curriculum or in the semester of application be taking the courses needed to complete the requirements.

An overall grade point average of 2.5, and a GPA of at least 2.5 in the journalism and R-TV core courses, is required of applicants.

Completed applications are evaluated by the School of Journalism Admissions Committee and acceptances are made by the faculty and dean based on the committee's recommendations. The primary admissions criteria are grade point averages, both overall and in the pre-professional program, progress in completing the pre-professional curriculum, and an evaluation of work submitted. Successful applicants will have demonstrated, among other qualities, promise and professional aptitude through the quality of their course work and their overall performance in the pre-professional program, and will have demonstrated an interest in pursuing a career in journalism. Students with deficiencies in these requirements may on occasion be admitted provisionally. Once deficiencies are removed the student will be given full admission status.

Applications for admission to the professional programs may be obtained from the Office of the Dean, School of Journalism, or online at the School's website. A \$15 nonrefundable application fee and transcripts of all academic work must accompany the application. Admission for one academic year cannot be deferred to another academic year without the written consent of the academic chair of the student's department.

Students transferring from other ACEJMC-accredited programs in journalism or radio-television may be admitted on a space available basis. Transfer credit for pre-professional and professional courses taken at other institutions is accepted only for those courses that are deemed equivalent and in which a letter grade of C or better is obtained.

#### Academic Progression

The general University academic standing requirements are listed separately in this catalog. See index.

Students enrolled in the professional journalism program must maintain satisfactory academic progress. Admission to the professional program requires a cumulative grade average of 2.5 and a pre-journalism or pre-R-TV course average of 2.5. Any student who has been admitted and whose grade average subsequently falls below a 2.5 must meet with his or her advisor to discuss the student's progress before classes resume the following semester. A student in the professional program who has a cumulative or professional grade point average less than 2.0 will be suspended from the program.

A student dismissed from the program for substandard performance will not be readmitted, except in cases where substantiation is made to the faculty, by written petition, that the substandard performance was the result of circumstances that no longer exist, or that the student has demonstrated the capability and desire to perform satisfactory work since dismissal from the program.

A student leaving the journalism or R-TV professional programs for any reason, whether in good standing or on academic suspension, must reapply for admission.

#### Special Degree Requirements

Refer to graduation requirements listed previously in the catalog. See index.

#### Pre-Professional Curriculum

The following School of Journalism and General Education courses must be completed prior to admission to the School of Journalism professional program. Students who are unsuccessful in gaining admission to the professional program should realize that completion of the pre-professional program fulfills a significant portion of the University General Education Requirements.

Core requirements for all pre-professional students in the School of Journalism:

Journalism Core courses:

- . JRNL 100H (JOUR 100H) Media History and Literacy
- . JRNL 251 (R-TV 251) Beginning Video Photography & Production
- . JRNL 227 (JOUR 227) Beginning Photojournalism
- . JRNL 270 (JOUR 270) Reporting

General Education Core for Pre-Journalism and Pre-R-TV (former course numbers in parentheses)

- . One math course that fulfills the General Education math requirement.
- . A history course from the following: HSTA 101H, 102H, 103H, 104H (HIST 151H, 152H, 154H, 155H).
- . A course in Gen Ed Group X, Indigenous and Global Perspectives from the following: ANTY 101H, 141H (ANTH 101H, 106H); PSCI 230X (PSC 130E); HSTR 146H or 231H (HIST 106 or 287H); MCLG 100H; GPHY 243X or 245X (GEOG 207S, 213S); NASX 105H or 231X (NAS 100H, 231X); SOCI 212H (SOC 212H).
- . A Political Science course from among PSCI 210S, 220S or 230X (PSC 100S, 120S, 130E). [If PSCI 230X (PSC 130E) is taken to fulfill a Group X course, PSCI 210S or 220S (PSC 100S, 120S) is required.]
- . An economics course from among ECNS 101S, 201S or 202S (ECON 100S, 111S, or 112S), OR a business course, BGEN 105S (BADM 100S).

Students are strongly urged to complete a second semester of a foreign language while in the pre-professional program. The UM foreign language requirements must be satisfied before graduation. Journalism students may not substitute a symbolic system for a foreign language.

Transfer credit to meet these requirements must be approved by the journalism or R-TV chair.

**Professional Program**

Students in the professional program must earn a C- or better grade in all journalism required courses or they must repeat the course.

After admission to the professional program, all students must take the following courses before graduation:

- . JRNL 300 (JOUR 367) First Amendment and Journalism Law
- . JRNL 400 (JOUR 481) Ethics and Trends in News Media
- . JRNL 498 (JOUR 490) Supervised Internship
- . One capstone course as designated by the faculty

In addition, all students must choose five courses from the following JRNL courses: 328 (JOUR 328), 330 (JOUR 380), 331, 340 (R-TV 360), 350 (R-TV 350), 351 (R-TV 351), 352 (R-TV 361), 362 (JOUR 315), 370, 410 (JOUR 420), 411 (JOUR 421), 412 (JOUR 420), 414, 427 (JOUR 417), 428 (JOUR 418), 429 (JOUR 429), 430 (JOUR 475), 431 (JOUR 400), 440 (R-TV 420), 470 (JOUR 431), 471 (JOUR 432), 472 (JOUR 489), 473 (JOUR 450), 474 (JOUR 410), 480 (R-TV 460), 481 (R-TV 450), 485 (R-TV 485), 488 (R-TV 481/482) .

- . Capstone courses will be designated for each fall and spring semester. These 400-level classes will work on projects for professional publication or broadcast, will include multiple story-telling formats and will collaborate with professional editors and producers.
- . All students must take, and pass, the University Writing Proficiency Examination before enrolling in JRNL 400 (JOUR 481). In addition, all students in the professional program must successfully complete an upper division writing course, either from courses in the School of Journalism or in a department outside of the School.

All students also must complete electives in JRNL that will bring the total number of credits before graduation to at least 37.

Students must complete 72 total credits outside Journalism.

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Journalism (JRNL) - Course Descriptions**

100H, 102Y, 105X, 140A, 195, 201, 227, 230, 251, 260, 270, 291, 295, 300, 305, 307, 328, 330, 331, 340, 350, 351, 352, 362, 370, 375, 391, 392, 396, 400, 410, 411, 412, 414, 427, 428, 429, 430, 431, 440, 470, 471, 472, 473, 474, 480, 481, 482, 485, 488, 491, 494, 498, 505, 527, 551, 567, 570, 575, 580, 590, 591, 592, 594, 599, 620, 640, 650, 690, 691, 692, 698, 699

## Faculty

### Professors

Raymond Ekness, M.A., The University of Montana, 1995

Peggy Kuhr, M.A., Gonzaga University, 1993

Dennis L. Swibold, M.A., The University of Montana, 1991

### Associate Professors

Denise Dowling, M.A., Western Governor's University, 2003 (Interim Dean)

Raymond Fanning, M.S.T., Northwestern University, 1988; M.F.A., Brandeis University, 1981

Keith Graham, M.A., University of Missouri, 1979

Henriette Löwisch, Graduate Diploma, Ludwig-Maximilians-Universitaet, Munich, 1991

Jeremy Lurgio, M.A., The University of Montana, 2001

Nadia White, M.S., Columbia University, 1992

### Assistant Professors

Jule Banville, M.A., Columbia University, 2000

Lee Banville, M.A., The University of Montana, 2012

Joe Eaton, M.A., The University of Maryland, 2004

### Director of Native American Journalism Projects

Jason Begay, B.A., The University of Montana, 2002

### Emeritus Professors

Sharon Barrett, M.A., University of Wisconsin, 1967

Jerry E. Brown, Ph.D., Vanderbilt University, 1974

Charles E. Hood, Jr., Ph.D., Washington State University, 1980

William L. Knowles, B.A., San Jose State College, 1959

Gregory S. MacDonald, M.A., University of Michigan, 1973

Carol B. Van Valkenburg, M.I.S., The University of Montana, 1988

Clemens P. Work, J.D., Golden Gate University School of Law, 1975

## School of Law

- . Required Curriculum
- . Faculty

**Irma S. Russell, Dean**

**Andrew King-Ries, Associate Dean**

The Law School is accredited by the American Bar Association and the Association of American Law Schools, and offers the degree of Juris Doctor (J.D.). Prerequisites for admission to the Law School are a baccalaureate degree and Law School Admission Test.

For detailed information concerning the Law School's admission criteria, application procedures, facilities, and official course descriptions, consult the Law School Catalog, which may be obtained by calling (406)243-6169 or visiting the Law School website.

The Law School's administrative regulations are contained in the Law School Student Handbook, which is on the website. The Law School conforms in most instances to the calendar established for the entire University. There are some differences, however, because

the Law School operates on a different (and longer) semester system than the rest of the University.

### Academic Year Calendar

Access the Law School Academic Calendar via the page at this URL: <http://www.umt.edu/law/students/2012-2013AcademicCalendar.php>

### Required Curriculum

First Year	Credits
500 Civil Procedure I	3
501 Civil Procedure II	2
502 Contracts I	3
503 Contracts II	2
504 Pretrial Advocacy I	2
505 Pretrial Advocacy II	1
506 Legal Research	2
508 Legal Analysis	1
509 Legal Writing I	3
510 Criminal Law & Proc I	2
511 Criminal Law & Proc II	3
512 Torts I	2
513 Torts II	3
Second Year	Credits
550 Property I	2
551 Property II	3
552 Federal Tax(may be taken third year)	3
554 Business Organizations	3
555 Professional Responsibility	3
556 Business Transactions	2
557 Trial Practice	2
558 Constitutional Law	4
560 Evidence	3
Electives (see below)	
Third Year	Credits
(minimum of 4 credits required)	
599 Clinical Training II	1-8
600 Clinical Training III	1-6
601 Clinical Training IV	1-6
Electives (see below)	

### Elective Courses

(Elective offerings vary from year to year)

- . Advanced Criminal Procedure (Law 690, 2 credits)
- . Advanced Environmental Law (Law 649, 3 credits)
- . Advanced Legal Research (Law 615, 2 credits)
- . Advanced Legal Issues in Education (Law 686, 3 credits)
- . Advanced Legislation (Law 652, 2 credits)
- . Advanced Federal Indian Law (Law 617, 2 credits)
- . Advanced Public Land and Resources Law (Law 619, 2 credits)
- . Advanced Trial Advocacy (Law 685, 1 credit)
- . Agricultural Law (Law 656, 2 credits)
- . Alternative Dispute Resolution (Law 614, 3 credits)
- . American Indian Natural Resources (Law 619, 2credits)
- . Appellate Advocacy (Law 616, 3 credits)
- . Bankruptcy (Law 621, 2 credits)
- . Child Advocacy (Law 670, 2 credits)
- . Client Counseling Team (Law 638, 2 credits)
- . Conflict of Laws (Law 653, 2 credits)
- . Consumer Transactions (Law 645, 3 credits)
- . Copyright Law (Law 682, 3 credits)
- . Cyber Law (Law 676, 2 credits)
- . Disability Law (Law 668, 2 credits)
- . Elder Law (Law 620, 3 credits)
- . Employment Law (Law 622, 3 credits)
- . Environmental Law (Law 650, 3 credits)

- . Estate Planning (Law 659, 3 credits)
- . Family Law (Law 669, 3 credits)
- . Family Law Mediation (Law 672, 2 credits)
- . Federal Courts (Law 671, 2 credits)
- . Federal Indian Law (Law 648, 3 credits)
- . First Amendment Seminar (Law 675, 2 credits)
- . Foundations of Natural Resources Conflict Resolution (Law 613, 3 credits)
- . Gender and the Law (Law 625, 3 credits)
- . Health Care Law (Law 637, 3 credits)
- . Independent Study (Law 660/1, 1-2 credits)
- . Insurance Law (Law 624, 3 credits)
- . International Business & Trade (Law 629, 2 credits)
- . Introduction to Environmental Law (Law 650, 3 credits)
- . Land Use Planning (Law 687, 3 credits)
- . Law & Literature (Law 607, 1 credit)
- . Law & Technology (Law 693, 2 credits)
- . Law Practice (Law 631, 1 credit)
- . Law Reviews I, II, III, IV (Law 564/5, Law 602/3, 1-2 credits)
- . Lawyers' Values (Law 630, 2 credits)
- . Legal History (Law 626, 2 credits)
- . Local Government (Law 646, 3 credits)
- . Moot Courts (Law 666, 2 credits)
- . Montana Constitutional Law (Law 618, 2 credits)
- . Natural Resource Development (Law 633, 3 credits)
- . Negotiations (Law 641, 2 credits)
- . Negotiation Team (Law 642, 2 credits)
- . Non-profit Organizations (Law 674, 2 credits)
- . Patent Law (Law 627, 2 credits)
- . Philosophy of Law (Law 664, 3 credits)
- . Practicum in Natural Resources Conflict Resolution
- . Product Liability (Law 657, 2 credits)
- . Public Interest Lawyering (Law 673, 3 credits)
- . Public International Law (Law 634, 3 credits)
- . Public Land and Resources Law (Law 654, 3 credits)
- . Public Regulation of Business (Law 632, 3 credits)
- . Real Estate Transactions (Law 658, 2 credits)
- . Remedies (Law 628, 3 credits)
- . Sales & Leases (Law 692, 3 credits)
- . Secured Transactions (Law 636, 2 credits)
- . Special Topics in Criminal Law (Law 667, 2 credits)
- . Taxation of Business Organizations (Law 639, 4 credits)
- . Taxation of Estates & Gifts (Law 655, 3 credits)
- . Taxation of Property Transactions (Law 640, 2 credits)
- . Trademark Law (Law 693, 2 credits)
- . Tribal Courts/Tribal Law (Law 688, 3 credits)
- . Tribal/State Relations (Law 694, 2 credits)
- . UCC Articles 203 (Law 609, 3 credits)
- . Water Law (Law 663, 2 credits)
- . White Collar Crime (Law 644, 2 credits)
- . Workers' Compensation (Law 662, 3 credits)

## Faculty

### Professors

Bari R. Burke, J.D., University of California, Davis, 1979

J. Martin Burke, LL.M., New York University, 1982

Scott J. Burnham, LL.M., New York University, 1981

William J. Corbett, LL.M., Harvard University, 1971

Raymond Cross, J.D., Yale University, 1973

William F. Crowley, LL.M., New York University, 1951 (Emeritus)

E. Edwin Eck II, LL.M., Georgetown University (Dean)

Larry M. Elison, S.J.D., University of Michigan, 1962 (Emeritus)

Cynthia Ford, J.D., Cornell Law School, 1978

Gregory S. Munro, J.D., University of Montana, 1975

Robert G. Natelson, J.D., Cornell Law School, 1973

David J. Patterson, LL.M., University of Michigan, 1966

Fritz Snyder, J.D., Washburn School of Law, 1979 (Associate Dean)

Robert E. Sullivan, J.D., Notre Dame, 1946 (Dean Emeritus)

#### Associate Professors

Elaine Gagliardi, LL.M., New York University, 1990

Stacey Gordon, J.D., University of Montana, 2000

Jeffrey T. Renz, J.D., University of Montana, 1979

#### Assistant Professors

Phillip Cousineau, MLS., University of Texas, 1993

Eduardo Capulong, J.D. City University of New York Law School, 1991

Larry Howell, J.D., M.A., The University of Montana, 1992

Kristen Juras, J.D., University of Georgia, 1982

Andrew King-Ries, J.D., Washington University, 1993

Elizabeth Krunk, J.D., University of Michigan, 2001

John W. McDonald, J.D., University of Montana, 1961

Jeffrey T Renz, J.D., University of Montana, 1979

Maylinn Smith, J.D., University of Montana, 1987

Margaret A. Tonon, J.D., University of Montana, 1974

#### Adjunct Faculty

David Aronofsky, J.D., University of Texas, 1982

Klaus Sitte, J.D., University of Montana, 1972

## Maureen and Mike Mansfield Center

Abraham Kim, Director

The Maureen and Mike Mansfield Center was established in 1986 to pay tribute to Maureen and Mike Mansfield and to recognize their important contributions to U.S. Asian relations and public policy. The Center is an academic unit within The University of Montana and receives core funding from an endowment managed by the Maureen and Mike Mansfield Foundation. Mansfield Center faculty offer classroom instruction, conduct research, provide training for Asian and U.S. government personnel, and organize various types of conferences, all with a focus on East Asia. The Center faculty collaborate with the University's Asian Studies Program and several other campus units.

The Mansfield Center's Ethics and Public Affairs Program (formerly known as the Center for Ethics) focuses upon the relationship of values to public institutions and affairs. Its courses, seminars, lectures, conferences, and internships examine the role that ethical values can and should play in public life, moral quandaries faced by those who govern philosophical and practical dimensions of political ethics, and issues of leadership and character in public service.



## Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Mansfield Center (MANS) - Course Descriptions

101, 102, 195, 201, 202, 240, 395, 494, 495, 496, 595

## Faculty

### Professors

Terry M. Weidner, Ph.D., University of California, Davis, 1980 (Mansfield Professor of Modern Chinese Affairs)

Philip West, Ph.D., Harvard University, 1971 (Mansfield Professor of Modern Asian Affairs)

### Adjunct Professors

Ambassador Mark Johnson, M.A., George Washington University, 1971 (Adjunct Mansfield Professor)

Steven Levine, Ph.D., Harvard University, 1972 (Adjunct Mansfield Professor of Modern Asian Affairs)

## The Maureen and Mike Mansfield Library

Shali Zhang, Dean of Libraries

The Maureen and Mike Mansfield Library at the University of Montana provides an array of information resources and services in support of the curricular and research programs of the university. These resources include traditional library collections and electronic access to networked research databases, e-journal packages, electronic journal subscriptions, media materials, and a Web-based integrated library catalog. Library services include in-depth research and reference assistance, an extensive instruction program integrated into the university curriculum, and full-service computing and copying facilities. Extensive services for distance education students and faculty are available to provide an equitable educational experience.

The Maureen and Mike Mansfield Library comprises the heart of UM's library system. Collections exceed 1.6 million bound volumes, more than 169,000 electronic books, access to over 33,000 print and electronic journals, an expanding array of electronic databases, over 70,000 media, a federal government depository collection and an Archives and Special Collections. These collections are supplemented by an active interlibrary loan service through which the resources of other libraries are made available to students and faculty. The Mansfield Library is open seven days a week for 111 hours per week during the academic semester.

Over 130 computers available for student use and wireless access throughout the building provides fast and stable internet connectivity in support of access to electronic resources and access to other networked information. Three state-of-the-art classrooms underscore the goal of the Library as a learning library in which students learn how to access and evaluate information in support of their advancing academic careers. Study carrels, group study rooms, study tables, and soft seating on all floors of the library provide a variety of study environments.

The Mansfield Library at Missoula College UM (located on the East Campus) supports its curricular programs. Students and faculty at both campuses have access to all library resources and services. Students at Bitterroot College UM, in Hamilton, also have full access to the Mansfield Library resources and services. The library collections at the affiliated UM campuses are located in Butte at Montana Tech, and Highlands College of Montana Tech; in Dillon at The Carson Library of the University of Montana-Western; and in Helena at Helena College the University of Montana.

## Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Library Science (LSCI) - Course Descriptions

191, 192, 200, 291, 292, 391, 392, 491, 492, 595, 596

## Faculty

### Professors

Barry Brown, M.I.L.S., University of Michigan, 1989

Kimberley M. Granath, M.L.S., University of Oklahoma, 1985

Sue Samson, M.A., University of Missouri, 1977

**Associate Professors**

Julie Biando Edwards, M.L.I.S., University of Illinois, 2005

Samantha Hines, M.L.I.S., University of Illinois, 2003

Teressa Keenan, M.L.I.S., University of Washington, 2008

Donna McCrea, M.L.I.S., University of Wisconsin-Milwaukee, 1999

Tammy Ravas, M.L.S., M.A., State University of New York at Buffalo, 2001, 2003

Kate Zoellner, M.S.I., University of Michigan, 2005

**Assistant Professors**

Susanne Caro, M.L.S., Texas Women's University, Denton, 2006

Angela Dresselhaus, M.L.S., Indiana University, 2009

Sam Meister, M.L.I.S., San Jose State University, 2009

Megan Stark, M.L.I.S., University of Washington, 2009

Wendy Walker, M.L.I.S., San Jose State University, 2007

**Adjunct Assistant Professors**

John Bales, M.L.I.S., University of Wisconsin – Milwaukee, 2010

Audra Loyal, M.L.I.S., University of Washington, 2009

Kimberly Swanson, M.A., University of Wisconsin – Madison, 1994

**Emeritus Professors**

Devon Chandler, Ed.D., University of Oregon, 1973

Karen Driessen, M.A., University of Denver, 1967

Richard T. Dunn, M.A.L.S., Rosary College, 1972

William W. Elison, M.A., University of Denver, 1970

Karen Hatcher, M.S., University of Wisconsin, 1964

Christopher Mullin, M.A., University of Washington, 1969

Erling Oelz, M.L.S., University of Illinois, 1969

Dennis Richards, M.L.S., Florida State University, 1963

Bonnie Schuster, M.L.S., University of Minnesota, 1968

## **Department of Applied Arts and Sciences**

Cathy Corr, Chair

The Department of Applied Arts and Sciences (AASC) is the center of academic excellence for Missoula College students seeking academic, professional, or technical careers. AASC offers courses in communication studies, mathematics, behavioral science and psychology, science, and writing studies and provides foundational courses in mathematics and writing. Most courses from these disciplines meet the general education requirements for the Associate of Arts Degree (AA) and Associate of Applied Science Degrees (AAS). Courses that fulfill general education requirements also satisfy the MUS and UM general education requirements in their perspectives.

### Associate of Arts-A.A. Degree

The Department of Applied Arts and Sciences offer the Associate of Arts Degree. The Associate of Arts Degree is a general education transfer degree and does not include a major or minor course of study. To receive an Associate of Arts degree all students must successfully complete the general education requirements as described by Montana Board of Regents policy 301.10, Appendix 1. Students preparing for a specific baccalaureate degree may decide to choose specific general education courses that meet the requirements for a major. Students seeking the AA are not required to sit for the upper-division writing proficiency assessment (WPA). The minimum grade average for the 60 credits required for graduation is 2.00 and applies to courses taken for a traditional letter grade (A-F) basis. Students must receive a C- or better for all general education courses.

Students may begin coursework in the autumn or spring semester. Following is a suggested first year course of study. Courses numbered below 100 and courses with a "T" suffix on the course number do not count toward the 60 credit requirement or general education course requirements, but do meet financial aid requirements.

#### Course Choices:

##### First Semester

Writing course determined by writing placement score (3 cr)

Mathematics course determined by mathematics placement score (3 cr)

General education electives (9 cr)

##### Second Semester

Second writing course requirement (3 cr)

Second mathematics course requirement (3 cr)

General education groups (9 cr)

#### Areas of Emphasis within an Associate of Arts Degree

Although the AA does not include a major or minor course of study, students may elect to choose classes in a specific area of interest. Students should work with their academic advisors when selecting their courses. New areas of emphasis within the Associate of Arts Degree include Behavioral Science with an emphasis in Addiction Studies; Communication Studies with an emphasis in Professional Communication; and an emphasis in Law Enforcement Personnel, which is a collaborative effort offered by Missoula College, UM baccalaureate program, and the Montana Law Enforcement Academy (MLEA) in Helena.

Behavior Science emphasis areas in (a) Chemical Addiction Studies (b) Prevention studies (c) pre-Social Work, (Contact Linda Eagleheart at [Linda.Eagleheart@umontana.edu](mailto:Linda.Eagleheart@umontana.edu), or Alison Pepper at [Alison.Pepper@umontana.edu](mailto:Alison.Pepper@umontana.edu) for advising; or (d) pre-psychology contact [Alison.Pepper@umontana.edu](mailto:Alison.Pepper@umontana.edu) for advising.

Communication emphasis areas in Communication Studies and professional Communication (Contact Kimberly Reiser at [Kim.Reiser@umontana.edu](mailto:Kim.Reiser@umontana.edu) for advising)

Law Enforcement emphasis areas in law enforcement (Contact Cathy Corr at [Cathy.Corr@umontana.edu](mailto:Cathy.Corr@umontana.edu) for advising.)

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

##### Anthropology (ANTY) - Course Descriptions

101H

##### Applied Arts and Sciences (AASC) - Course Descriptions

100, 195T, 196T, 295T

##### Biology - General (BIOB) - Course Descriptions

101N

##### Biology - Human (BIOH) - Course Descriptions

108, 201N, 211N, 212N, 220

**Chemical Addiction Studies (AASC) - Course Descriptions**

140, 185, 191, 195, 210, 225, 231, 242, 243, 248, 250, 260, 291, 295, 433

**Communications (COMX) - Course Descriptions**

102, 111A, 115S, 140L, 191, 192, 201, 212, 217A, 242, 260S, 291, 296T

**Creative Writing (CRWR) - Course Descriptions**

210A, 211A, 240A

**Environmental Studies (ENST) - Course Descriptions**

230H

**Literature (LIT) - Course Descriptions**

110L, 120L

**Mathematics (M) - Course Descriptions**

065, 090, 095, 105, 111, 115, 121, 122, 151, 162, 191, 192

**Nutrition (NUTR) - Course Descriptions**

221N

**Psychology (PSYX) - Course Descriptions**

100S, 161S, 191, 192, 230S, 238, 240, 290, 291, 292, 294, 298

**Science (SCN) - Course Descriptions**

095T, 100N, 105N, 120T, 121T, 175N, 176, 195T, 196T, 260N, 295T

**Writing Studies (WRIT) - Course Descriptions**

095, 101, 121, 191T, 192T, 221, 240E, 291T, 292T

## Department of Applied Computing and Electronics

Thomas Gallagher, Chairman

The Department of Applied Computing and Electronics of The University of Montana Missoula College collaborates with business and industry to prepare graduates to compete in and contribute to a diverse, dynamic global society. Students acquire the practical skills necessary to pursue entry-level careers in STEM-related (Science, Technology, Engineering, and Mathematics) occupations. Students engage in experiential learning embracing technical education, effective communication, problem solving, professionalism, and workplace skills. The department promotes life-long learning to empower students in an ever-changing world. More details on programs available through the department can be found on the web: <http://ace.mc.umt.edu>.

### Preparation to Enter Programs

Students entering programs in Applied Computing & Electronics are expected to have basic computing skills and adequate preparation in mathematics. Completion of M90 Introductory Algebra or equivalent placement scores are required for the following first year courses: DDSN 114 (CADX 110) Intro to CAD, CSCI 110 Programming – VB I, CSCI 113 C++ Programming, CSCI 172 Intro to Computer Modeling, ITS 165 OS Commands and Scripts, ITS 150 CCNA I, NRG 101 Introduction to Energy Systems I, and EET 105 DC Circuit Analysis. Underprepared students should allocate an additional semester to the suggested four semester sequence in completing programs of study.

### Computer Aided Design - Certificate of Applied Science

Troy Savage, Director

The Computer Aided Design (CAD) program offers graduates a pathway into professional careers as technicians in civil, mechanical, and architectural drafting. Other career opportunities exist in geographic information systems, mapping, surveying, and technical design. The one year program prepares students in all the following skills as well as training in mathematics, business, and writing: graphic communications; computer-aided design and modeling systems; geographic information systems; and surveying.

Graduates emerge with an understanding of how to use computer aided design software to solve real-world graphic communications problems in a team-oriented environment.

#### Special Degree Requirements

The Certificate in Applied Science in Computer Aided Design requires completion of the following requirements with at least a "C-" in each course:

1. **Mathematics. M121 (MAT 118/MATH 111)**
2. **Communications. WRIT 101 (ENEX 101/WTS 101)**
3. **Humanities. BGEN 105S (BUS 103S)**
4. **Computer Science/Programming. CSCI 105 (CS 111/CRT 111) and CSCI 172 (CS 172/CRT 172)**
5. **Computer Aided Design, DDSN 114 (CADX 110), DDSN 113 (CADX 131), DDSN 244 (CADX 142), DDSN 116 (CADX 156), SRVY 230 (CADX 234), DDSN 245 (CADX 212)**

#### Computer Aided Design - Suggested Schedule:

First Year	A	S	Su
BGEN 105S (BUS 103S) Introduction to Business	-	-	3
DDSN 114 (CADX 110) Intro to CAD	3	-	-
DDSN 113 (CADX 131) Technical Drafting	3	-	-
DDSN 244 (CADX 142) GIS Mapping	-	3	-
DDSN 116 (CADX 156) 3D CAD	3	-	-
SRVY 230 (CADX 234) Intro to Surveying for Engineers	-	3	-
DDSN 245 (CADX 212) Civil Drafting	-	4	-
CSCI 105 (CS 111/CRT 111) Computer Fluency	3	-	-
CSCI 172 (CS 172/CRT 172) Introduction to Computer Modeling	-	3	-
M 121 (MAT 118/MATH 111) College Algebra	3	-	-
WRIT 101 (ENEX 101/WTS 101) College Writing I	-	3	-
TOTAL	15	16	3

#### Computer Support - Certificate of Applied Science

Thomas Gallagher, Director

Computer Support is a 31-credit certificate program preparing students for entry-level positions in the computing field. Required coursework includes programming, operating systems, networking, PC hardware, data modeling, and web technologies. Graduates pursue careers as help desk technicians, computer repair professionals, and computer support specialists. All students have the opportunity to complete the CompTIA A+ Computer Support Specialist industry certification. Coursework for the certificate program also leads to the A.A.S. degree in Information Technology.

#### Special Degree Requirements

The Certificate of Applied Science in Computer Support requires completion of the following requirements with at least a "C-" in each course:

1. **Mathematics. M115 (MATH 117)**
2. **Communications. WRIT 101 (ENEX 101/WTS 101)**
3. **Humanities. BGEN 105S (BUS 103S)**
4. **Computer Science/Programming. CSCI 105 (CS 111), CSCI 110 (CRT 121), CSCI 172 (CS 172/CRT 172)**
5. **Information Technology Systems. ITS 150, ITS 165 (CRT 112), ITS 210, ITS 280, and ITS 289**

#### Computer Support - Suggested Schedule:

First Year	S	A
BGEN 105S (BUS 103S) Introduction to Business	-	3
ITS 165 (CRT 112) OS Commands and Scripts	3	-
CSCI 105 (CRT 111) Computer Fluency	3	-
CSCI 110 (CRT 121) Programming with Visual Basic I	-	3
CSCI 172 (CS 172/CRT 172) Introduction to Computer Modeling	-	3
ITS 150 (CRT 151) CCNA 1: Exploration	3	-
ITS 210 (CRT 210T) Network Operating Systems - Desktop	-	3
ITS 280 (CRT 285T) Computer Repair and Maintenance	-	3
ITS 289 Professional Certification	-	1
M 115 (MATH 117) Probability and Linear Math	3	-
WRIT 101 (ENEX 101/WTS 101) College Writing I	3	-
Total	15	16

#### Electronics Technology - Associate of Applied Science

**Steve Shen, Director**

Students in the Electronics Technology program learn to troubleshoot, calibrate, test, and repair electronic components and circuit boards used in a wide range of electronic equipment including computers and communication equipment. Training includes working knowledge of direct and alternating current theory, semiconductor circuits, instrumentation, automatic controls, data communications, computerized communication links, and operational amplifiers. Students become familiar with robotics, electronic communications theory, and modes of RF communications.

Students are awarded the Associate of Applied Science degree upon successful completion of the program.

**Special Degree Requirements**

The A.A.S degree in Electronics Technology requires completion of the following requirements with at least a "C-" in each course:

1. **Mathematics and Science.** M 121 (MATH 111), M 122 (MATH 112/MAT 119), M 162 (MATH 150/MAT 145), and SCN 175N
2. **Communications.** WRIT 101 (or WRIT 121)
3. **Humanities.** PSYX 161S (PSY 110S)
4. **Computer Science/Programming.** CSCI 105 (CS 111/CRT 111) and CSCI 110 (CRT 121)
5. **Electronics Technology,** EET 105, EET 106, EET 113, EET 205, EET 206, EET 227, EET 234T, EET 237 (or EET 240), EET 241T, EET 242T, EET 260, EET 270T, and EET 280T

**Electronics Technology - Suggested Schedule:**

	<b>First Year</b>	<b>A S</b>
CSCI 105 (CRT 111) Computer Fluency		3 -
CSCI 110 (CRT 121) Programming with Visual Basic I		- 3
EET 105 DC Circuit Analysis		4 -
EET 106 AC Circuit Analysis		- 3
EET 113 Circuits Lab		- 1
EET 205 Solid State Electronics I		- 4
SCN 175N Integrated Physical Science I		- 3
M 121 (MAT 118) College Algebra		3 -
M 122 (MATH 112/MAT 119) College Trigonometry		- 3
PSYX 161S (PSY 110S) Fund of Organizational Psychology		3 -
WRIT 101 (ENEX/WTS 101) College Writing I or WRIT 121 (WTS 115) Introduction to Technical Writing		3 -
<b>TOTAL</b>		<b>16 17</b>
	<b>Second Year</b>	<b>A S</b>
EET 206 Solid State Electronics II		3 -
EET 227 Digital Electronics		4 -
EET 234T Automatic Controls		4 -
EET 237 Programmable Logic Controllers or EET 240 Robotics		- 3
EET 241T Instrumentation		- 3
EET 242T Electronics Lab III		- 3
EET 260 Data Communications		- 3
EET 270T Wireless Communications		4 -
EET 280T Electronics Capstone		- 2
M 162 (MATH 150) Applied Calculus		- 4
<b>Total</b>		<b>15 18</b>

**Energy Technology - Associate of Applied Science****Bradley Layton, Director**

Students in the Energy Technology program are introduced to the full suite of energy sources and technologies. Graduates are general practitioners equipped with skills in design, installation, and maintenance of diverse energy technologies and systems; sales, operations, and management; regulatory compliance; basic electricity and power systems; energy storage and distribution; site assessment; basic energy economics; efficiency and conservation strategies; and project management. Students may enter the program autumn or spring term. Further information can be found at <http://ace.mc.umt.edu/nrg/>.

**Special Degree Requirements**

The A.A.S degree in Energy Technology requires completion of the following requirements with at least a "C-" in each course:

1. **Mathematics and Science.** M 121 (MATH 111/MAT 118), M 122 (MATH 112/MAT 119), SCN 175N, and SCN 176 or ENSC 105N (EVST 105N).
2. **Communications.** WRIT 101 (ENEX 101/WTS 101)
3. **Humanities.** BGEN 105S (BUS 103S) and BGEN 160S (TASK 160S (BUS 160S))
4. **Complete the following Computer Science, Electronics, and Information Technology courses:** CSCI 172 (CS 172/CRT 172), EET 105,

**EET 106, EET 113, and ITS 221**

5. Complete the Energy Technology Core: NRG 101, NRG 102, NRG 191, NRG 213, NRG 214, NRG 235 and NRG 298  
 6. Complete five (5) Energy Technology Specialty Electives: GEO 151, NRG 241, NRG 242, NRG 243, NRG 244, NRG 245, NRG 246, NRG 250, NRG 295, NRG 299T OR four (4) Energy Technology Specialty Electives and one (1) approved general elective.

<b>First Year</b>		<b>A</b>	<b>S</b>
BGEN 105S (BUS 103S) Introduction to Business	-		3
EET 105 DC Circuit Analysis	-		4
CSCI 172 (CRT 172) Introduction to Computer Modeling	3		-
M 121 (MATH 111/MAT 118) College Algebra	-		3
NRG 101 Introduction to Energy Systems I	3		-
NRG 102 Introduction to Energy Systems II	-		3
NRG 235 Building Energy Efficiency	-		3
SCN 175N Integrated Physical Science I	3		-
BGEN 160S (CCS 160S/TASK 160S/BUS 160S) Issues in Sustainability	3		-
WRIT 101 (ENEX 101/WTS 101) College Writing I	3		-
<b>Total</b>		<b>15</b>	<b>16</b>
<b>Summer</b>		<b>Credits</b>	
NRG 191 Energy Practicum (60 Hours)		2	
EET 113 Circuits Lab		1	
<b>Total</b>		<b>3</b>	
<b>Second Year</b>		<b>A</b>	<b>S</b>
EET 106 AC Circuits Analysis	3		-
SCN 176N or ENSC 105N (EVST 101N) Environmental Science	3		-
ITS 221 Project Management	3		-
M 122 (MATH 112/MAT 119) College Trigonometry	3		-
NRG 213 Power Systems Technology	-		3
NRG 214 Energy Storage and Distribution Systems	-		3
NRG 298 Energy Internship	-		2
Select 5 Energy Electives (see list above)	6		9
<b>Total</b>		<b>18</b>	<b>17</b>

**Energy Technology – Certificate of Applied Science**

Bradley Layton, Director

The Energy Technology program offers a 30-credit certificate preparing students for entry-level positions in the energy technology field. Required coursework includes mathematics; writing; energy technologies and systems; and energy storage and distribution. Coursework for the certificate program also leads to the A.A.S. degree in Energy Technology.

The Certificate of Applied Science in Energy Technology requires completion of the following requirements with at least a "C-" in each course:

1. Mathematics. M 121 (MATH 111/MAT 118)
2. Communications. WRIT 101 (ENEX 101/WTS 101)
3. Humanities. BGEN 160S (CCS 160S/TASK 160S (BUS 160S))
4. Complete the following Electronics Technology courses: EET 105, EET 106, EET 113
5. Complete the following Energy Technology courses: NRG 101, NRG 191, NRG 214, and NRG 298
6. Complete one (1) Energy Technology General Electives: GEO 151, NRG 102, NRG 191, NRG 213, NRG 235, NRG 241, NRG 242, NRG 243, NRG 244, NRG 245, NRG 246, NRG 250, NRG 295, NRG 299T

Students may enter the program autumn or spring term. Further information can be found at <http://ace.mc.umt.edu/nrg/>

**Health Information Technology – Professional Certificate**

Health IT is the application of information technology in the clinical setting to enhance the quality, accessibility, and cost effectiveness of healthcare. The certificate in Health IT provides a cross-disciplinary educational experience intended to complement individuals with a previous background from either a health professions or computing-related discipline. The certificate contains two distinct tracks: one for professionals with a computing-related background and one for professionals with a clinical health professions-related background.

**Special Degree Requirements**

The certificate requires completion of one of the following tracks:

**Computing Track**

1. Successful completion of a degree in a computing-related field (i.e. Information Technology).
2. Completion of the following courses with a minimum grade of C-: AHMS 144, AHMS 156, HIT 101, HIT 265, NRG 101 (Total - 13 credits)

## Health Professions Track

1. Successful completion of a degree in a clinical health professions-related field (i.e. Nursing) and completion of CSCI 172 or equivalent.
2. Completion of the following courses with a minimum grade of a C-: CSCI 240, HIT 101, HIT 265, ITS 150, and ITS 210. (Total - 15 credits)

## Area of Emphasis within the Associate of Arts Degree: Health Information Technology

Although the Associate of Arts degree does not include a major or minor course of study, students may select a specific area of interest. In collaboration with Montana Tech of The University of Montana, students at Missoula College can complete the AA degree with an area of emphasis in Health IT. Upon completion of the AA degree, students are poised for transfer to the bachelor degree in Health Care Informatics. In addition to the AA degree, students complete the Certificate of Applied Science in Computer Support through this partnership with Montana Tech. Further details on the AA degree and Certificate of Applied Science are available at <http://ace.mc.umt.edu/IT>

## Information Technology - Associate of Applied Science

Thomas Gallagher, Director

The Information Technology degree program prepares students for entry-level technical support positions in the career field of Computing and Information Technology. The program provides students with a well-rounded technical background for computer support. Requirements include coursework in programming, operating systems, networking, PC hardware, data modeling, and web technologies. The "soft skills" of oral communications, written communications, and human relations required for success in the field are developed and refined through general education. All students gain work experience in their field of study through the completion of an internship. Students are also required to complete an industry certification process and a certification exam.

### Information Systems Management Option

The Information Systems Management option emphasizes application development and business process. Students learn to write software using an object-oriented programming paradigm for deployment to the web and the desktop. Relational database design, structured query language (SQL), and the ability to create applications which push and pull information from databases are highlighted. Graduates seek careers as computer support specialists, help desk technicians, web developers, software developers, and database administrators.

### Network Management Option

Network administrator has become a common job title across all career fields. The Network Management option provides students with a background in network administration for supporting users and computing in a networked environment. Coursework in network operating systems, server administration, routers, switches, security, and IP telephony are all embedded in the Network Management option.

The University of Montana is a Cisco Networking Academy, a CompTIA Authorized Academy, and a member of the Microsoft Developers Network Academic Alliance. Opportunities exist for professional certification from Cisco (CCNA), Microsoft and Comp TIA (A+, Network+ and Security+).

Students entering the program should be prepared with basic computing skills (keyboarding, word processing, file management, and Internet applications) and adequate preparation in mathematics (completion of M 090 or equivalent placement scores). Underprepared students should allocate an additional semester to the suggested four semester sequence.

## Special Degree Requirements

The A.A.S degree in Information Technology requires completion of the following requirements with at least a "C-" in each course:

1. Mathematics. M115 (MATH 117)
2. Communications. WRIT 101 (ENEX 101, WTS 101) and COMX 111A (COM 160A)
3. Humanities. BGEN 105S (BUS 103S) and CSCI 215E (CRT 122E)
4. Computer Science/Programming. CSCI 105 (CRT 111), CSCI 110 (CRT 121), CSCI 172 (CS 172/CRT 172)
5. Information Technology Systems. ITS 150, ITS 165 (CRT 112), ITS 210, ITS 280, ITS 289, and ITS 298
6. Complete the requirements of the Information Systems Management Option: ACTG 101(ACT 132T), CSCI 120, CSCI 221, CSCI 240, (CRT 231, CRT 203, CRT 275), CRT 263 and 6 credits of approved electives from the ACTG, BUS, COM, CSCI, ITS, or WRIT rubrics; or the Network Management Option: ITS 152, ITS 212, ITS 214, ITS 222, ITS 250, ITS 252, and ITS 255

## Information Systems Management Option - Suggested Schedule:

First Year	A	S
BGEN 105S (BUS 103S) Introduction to Business	3	-



COMX 111A (COM 160A) Introduction to Public Speaking	3	-
ITS 165 (CRT 112) OS Commands and Scripts	-	3
CSCI 105 (CRT 111) Computer Fluency	3	-
CSCI 110 (CRT 121) Programming with Visual Basic I	-	3
CSCI 172 (CS 172/CRT 172) Introduction to Computer Modeling	-	3
CSCI 215E (CRT 122E) Social and Ethical Issues in CS	-	3
ITS 150 (CRT 151) CCNA 1: Exploration	-	3
M 115 (MAT 117) Probability and Linear Mathematics	3	-
WRIT 101 (ENEX 101/WTS 101) College Writing I	3	-
Total	15	15

**Second Year****A S**

ACTG 101 (ACC 132T) Accounting Procedures I	4	-
CRT 263 Web Design and Development	-	3
CSCI 120 (CRT 231) Programming with Visual Basic II	3	-
CSCI 221 (CRT 203) Systems Analysis and Design	-	3
CSCI 240 (CRT 275) Databases and SQL	3	-
ITS 210 (CRT 210T) Network Operating System - Desktop	3	-
ITS 280 (CRT 285T) Computer Repair and Maintenance	3	-
ITS 289 Professional Certification	-	1
ITS 298 (CRT 290T) Internship/Cooperative Education	-	2
Directed Electives	-	6
Total	16	15

**Directed Electives for the Information Systems Option: A student may request substitution of other courses to fulfill the directed elective requirement provided a clear connection can be made between a course, a student's career objective, and the degree program. All substitution requests require departmental approval.**

**Network Management Option - Suggested Schedule:****First Year****A S**

BGEN 105S (BUS 103S) Introduction to Business	3	-
ITS 165 (CRT 112) OS Commands and Scripts	-	3
CSCI 105 (CRT 111) Computer Fluency	3	-
CSCI 110 (CRT 121) Programming with Visual Basic I	-	3
CSCI 172 (CS 172/CRT 172) Introduction to Computer Modeling	-	3
CSCI 215E (CRT 122E) Social and Ethical Issue in CS	-	3
ITS 150 (CRT 151) CCNA 1: Exploration	3	-
ITS 152 (CRT 152T) CCNA 2: Exploration	-	3
M 115 (MAT 117) Probability and Linear Mathematics	3	-
WRIT 101 (ENEX101/WTS 101) College Writing I	3	-
Total	15	15

**Second Year****A S**

COMX 111A (COM 160A) Introduction to Public Speaking	-	3
ITS 210 (CRT 210T) Network Operating System - Desktop	3	-
ITS 212 (CRT 215T) Network Operating System - Server Admin	3	-
ITS 214 (CRT 216T) Network Operating System - Infrastructure	-	3
ITS 222 (CRT 222T) Enterprise Security Seminar	-	3
ITS 250 (CRT 251T) CCNA 3: Exploration	3	-
ITS 252 (CRT 252T) CCNA 4: Exploration	-	3
ITS 225 IP Telephony	3	-
ITS 280 (CRT 285T) Computer Repair and Maintenance	3	-
ITS 289 Professional Certification	-	1
ITS 298 (CRT 290T) Internship/Cooperative Education	-	2
Total	15	15

**Accounting Technology-A.A.S. degree****Computer Support Option**

Students interested in a career which prepares them to work as accounting technicians with a specialty in information technology may select the Accounting Technology, Computer Support option. This program is detailed in the Business Technology Department section of this catalog.

**Courses**

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

**Computer Applications (CAPP) - Course Descriptions**

091, 120, 154, 156, 254

**Computer Science/Programming (CSCI) - Course Descriptions**

105, 110, 113, 120, 172, 191, 192, 215E, 221, 240

**Computer Technology (CRT) - Course Descriptions**

112, 188T, 205T, 260, 263

**Drafting Design (DDSN) - Course Descriptions**

113, 114, 116, 191, 192, 244, 245

**Electronics Technology (EET) - Course Descriptions**

105, 106, 113, 195T, 205, 206, 227, 232, 234T, 237, 240T, 241T, 242T, 260, 270T, 280T, 295T, 298

**Sustainable Energy (NRGY) - Course Descriptions**

101, 102, 191, 195, 196, 213, 214, 235, 241, 242, 243, 244, 245, 246, 250, 290, 291, 292, 298, 299

**Information Technology Systems (ITS) - Course Descriptions**

150, 152, 210, 212, 214, 221, 222, 250, 252, 255, 280, 289, 291, 298

**Health Information Technology (HIT) - Course Descriptions**

101, 265

**Surveying (SRVY) - Course Descriptions**

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## Department of Business Technology

- . Special Degree Requirements
- . Courses

**Brian Larson, Chair**

The Business Technology Department of The University of Montana Missoula College collaborates with business and industry to prepare graduates to compete in and contribute to a dynamic global society. The department attracts and retains skilled faculty with the professional experience and theoretical background to utilize diverse instruction which reflects current and emerging business practices. Faculty actively engage student in the learning process by integrating experiential technical education and empowering students to adapt to an ever-changing world.

Students may choose from six Associate of Applied Science degree programs and four Certificate of Applied Science programs. Degree programs include Accounting Technology with an option in Computer Support; Administrative Management; Food Service Management; Medical Information Technology with options in Health Information Coding Specialty, and Medical Administrative Assisting; Paralegal Studies; and Management with options in Entrepreneurship, and Sales and Marketing. Certificate of Applied Science programs include Culinary Arts, Customer Relations, Medical Reception, and Sales and Marketing.

Students may attend classes on U of M Missoula College East and UM Mountain campuses. Programs may contain day, evening and weekend classes.

### Special Degree and Certificate Requirements

General education requirements are integrated into the following programs. Refer to the Academic Policies and Procedures section of this catalog for the specific requirements.

**Accounting Technology-A.A.S. Degree**

**Brian Larson, Interim Director**

Almost all organizations need either in-house financial staff or outside bookkeeping/accounting services to aid with financial data compilation and reporting. Bookkeepers and accountants maintain financial records and often participate in strategic planning and other fiscal decisions. Graduates work in small businesses as full charge bookkeepers or large businesses as members of accounting

staffs. They are required to communicate extensively with vendors, clients, and employees and are often key players in business projections, cash forecasting, and budgeting. This program provides students the marketable skills for employability in a variety of organizations including service, retail, non-profit, governmental, and accounting firms. Program graduates use technology to gather, compile and analyze data. They communicate budgetary and accounting information to non-financial colleagues and managers. Students considering this program should be analytical, detail-oriented, and enjoy using current technology.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

**Autumn Entry:**

	<b>First Year</b>	<b>A S</b>
ACTG 101 (ACC 132T) Accounting Procedures I		4
ACTG 102 (ACC 133T) Accounting Procedures II		4
ACTG 180 (ACC 134T) Payroll Accounting		- 3
BGEN 105S (BUS 103S) Introduction to Business		- 3
BGEN 235 (BUS 135T) Business Law		- 3
CAPP 120 (CRT 100) Introduction to Computers		3 -
CAPP 156 (CRT 180T) MS Excel		- 3
M 115 (MAT 117) Probability & Linear Math		3 -
BGEN 160S (TASK 160S/BUS 160S) Issues in Sustainability OR CSCI 215E (CRT 122E) Social and Ethical Issues in CS		3 -
WRIT 101 (WTS 101) College Writing I		3 -
Total		16 16
	<b>Second Year</b>	<b>A S</b>
ACTG 215 (ACC 232T) Foundations of Government and Not for Profit Accounting		- 3
ACTG 202 (ACC 234T) Principles of Managerial Accounting		3 -
ACTG 211 (ACC 236T) Income Tax Fundamentals		4 -
ACTG 250 (ACC 250T) Accounting Capstone		- 4
ACTG 298 (ACC 290T) Accounting Internship		- 2
BUS 210 Critical Analysis for Business		- 3
BUS 238T Financial Planning		3 -
COMX 111A (COM 160A) Introduction to Public Speaking		- 3
CSCI 172 (CRT 172) Introduction to Computer Modeling		3 -
ECNS 201S (ECON 111S) Principles of Microeconomics		3 -
Total		16 15

**Computer Support Option**

In addition to accounting technician training, students selecting this option will be prepared to manage and maintain LAN and/or WAN system, install, maintain and troubleshoot software, and train and support system users. They also will be trained to configure and diagnose workstation hardware, administer system security and upgrade, update and expand network systems.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

**Autumn Entry:**

	<b>First Year</b>	<b>A S</b>
ACTG 101 (ACC 132T) Accounting Procedures I		4
ACTG 102 (ACC 133T) Accounting Procedures II		- 4
ACTG 180 (ACC 134T) Payroll Accounting		- 3
BGEN 105S (BUS 103S) Introduction to Business		3 -
CAPP 156 MS Excel		- 3
CRT 112 Operating System Fundamentals		- 3
CSCI 105 (CRT 111) Computer Fluency		3 -
ITS 150 (CRT 151T) CCNA 1: Exploration		- 3
M 115 (MAT 117) Probability and Linear Math		3 -
WRIT 101 (WTS 101) College Writing I		3 -
Total		16 16
	<b>Second Year</b>	<b>A S</b>
ACTG 202 (ACC 234T) Principles of Managerial Accounting		3 -
ACTG 211 (ACC 236T) Income Tax Fundamentals		4 -
ACTG 250 Accounting Capstone		- 4
ACTG 298 (ACC 290T) Accounting Internship		- 2
COMX 111A (COM 160A) Introduction to Public Speaking		3 -
CSCI 110 (CRT 121) Programming with Visual Basic I		- 3
CSCI 172 Introduction to Computer Modeling		- 3
CSCI 215E (CRT 122E) Social and Ethical Issues in CS		- 3
ITS 210 (CRT 210T) Network Operating System - Desktop		3 -

ITS 280 (CRT 285T) Computer Repair and Maintenance	3 -
ITS 291 (CRT 289T) Special Topics: Professional Certification A+	- 1
Total	16 16

### Administrative Management-A.A.S. Degree

Cheryl Galipeau, Director

The Administrative Management Program allows students to advance the career proficiencies acquired in the Customer Relations certificate program by earning an Associate of Applied Science Degree. The Administrative Management program prepares graduates to meet the administrative and information needs of business and industry. Students gain proficiency in computer, management, and information technologies. They complete an academic component to gain an understanding of professional responsibilities in our global society. Graduates of this program become vital members of executive teams with the ability to assume supervisory, organizational, and communication roles in the coordination of administrative services. Students are encouraged to earn Microsoft Office Specialist (MOS) certification on Microsoft Office programs. Earning a Microsoft Office Specialist certification increases job opportunities by demonstrating technical proficiency in advanced skills to potential and current employers. Interested students should discuss this opportunity with the Administrative Management Program Director. An Associate of Applied Science Degree in Administrative Management opens opportunities for graduates in a variety of business settings.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with an advisor prior to selecting courses.

#### Autumn Entry:

	First Year	A	S
BGEN 105S (BUS 103S) Introduction to Business		3	-
BGEN 235 (BUS 135T) Business Law		-	3
BUS 140T Customer Service		-	4
CAPP 120 (CRT 100) Introduction to Computers		3	-
CAPP 154* MS Word		-	3
CAPP 156* (CRT 180T) MS Excel		-	3
COMX 115S (COM 150S) Introduction to Interpersonal Communications		-	3
COMX 250 (HMR 110) Introduction to Public Relations		3	-
M 115** (MAT 117) Probability and Linear Math or M 105** (MAT 107T) Contemporary Mathematics		3	-
TASK 145 (BUS 106T) Records Management		2	-
WRIT 121** (WTS 115) Introduction to Technical Writing or WRIT 101** (WTS 101) College Writing I		3	-
Total		17	16
	Second Year	A	S
ACTG 100 (ACC 131T) Essentials of Accounting or ACTG 101 (ACC 132T) Accounting Procedures I		4	-
BUS 210* Critical Analysis for Business		-	3
BMGT 216 (BUS 243T) Psychology of Management and Supervision		4	-
CAPP 254* (CRT 115T) Advanced MS Word		3	-
COMX 111A (COM 160A) Introduction to Public Speaking		-	3
CRT 260* Digital Publishing and Design		-	3
CRT 263* Web Design and Development		-	3
CSCI 172* Introduction to Computer Modeling		3	-
HMR 298 Administrative Management Internship		-	2
TASK 240* (BUS 240T) Administrative Support for the Office		3	-
Total		17	14

\* Indicates prerequisite needed

\*\* Placement in course(s) determined by placement assessment

### Customer Relations-Certificate of Applied Science

Cheryl Galipeau, Director

The Customer Relations program provides students with the skills to promote excellent customer relations in business settings. Courses related to the service mix, service-level decisions, formulation of service policies, customer service management, and the development of staff is included. Students gain knowledge of customer care, effective communication, and the importance of public relations to promote a positive company image. Students develop an understanding of challenges and conflicts while servicing both internal and external customers. Emphasis in business, computers, and communications provide a solid background for customer relations positions in the current business environment.

A Certificate of Applied Science is awarded for successful completion of the program.

Students entering autumn semester may complete the program in two semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

**Autumn Entry:**

<b>First Year</b>	<b>A</b>	<b>S</b>
BGEN 105S (BUS 103S) Introduction to Business	3	-
BGEN 235 (BUS 135T) Business Law	-	3
BUS 140T Customer Service	-	4
CAPP 120 (CRT 100) Introduction to Computers	3	-
CAPP 154* MS Word	-	3
CAPP 156* (CRT 180T) MS Excel	-	3
COMX 115S (COM 150S) Introduction to Interpersonal Communications	-	3
COMX 250 (HMR 110) Introduction to Public Relations	3	-
M 115** (MAT 117) Probability and Linear Math or M 105** (MAT 107T) Contemporary Math	3	-
TASK 145 (BUS 106T) Records Management	2	-
WRIT 121** (WTS 115) Introduction to Technical Writing or WRIT 101** (WTS 101) College Writing I	3	-
Total	17	16

\* Indicates Prerequisite Needed

\*\* Placement in course(s) determined by placement assessment

**Culinary Arts-Certificate of Applied Science**

**Tom Campbell, Director**

The Bureau of Labor Statistics indicates the hospitality field is America's number one retail employer and predicts its growth will increase 30 percent over the next two years. Students entering the Culinary Arts Certificate program or Food Service Management degree program prepare for careers in the hospitality industry. Students develop skills to seek employment in hotels, restaurants, resorts, casinos, clubs, catering, and corporate dining. Culinary careers encompass hospitality management, sales, product development, or entrepreneurship. To meet the growing demand of the hospitality industry, two program options are available.

Students may earn a Culinary Arts Certificate of Applied Science or a Food Service Management Associate of Applied Science degree.

The Culinary Arts certificate program is three semesters and provides an introduction to the field of culinary arts. Students prepare for an entry-level position in the expanding and challenging food service industry. This program incorporates comprehensive hands-on learning experiences complemented by supportive courses designed to prepare students for a wide range of career opportunities. This program allows a seamless transition into the Food Service Management degree.

Students are awarded a Certificate of Applied Science after successfully completing the program.

Students may enter the Culinary Arts certificate program autumn semester and early application is encouraged.

**Autumn Entry:**

<b>First Year</b>	<b>A</b>	<b>S</b>
CAPP 120 (CRT 100) Introduction to Computers	-	3
COMX 115S (COM 150S) Introduction to Interpersonal Communication	3	-
CULA 101 (CUL 151T) Introduction to Food Service	5	-
CULA 105 (CUL 175T) Food Service Sanitation	2	-
CULA 210 (FSM 180T) Nutritional Cooking	-	3
M 105 (MAT 107T) Contemporary Mathematics	3	-
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	-	3
WRIT 121 (WTS 115) Introduction to Technical Writing	3	-
<b>Food Station Experience from following courses:</b>		
CULA 156 (CUL 156T) Dining Room Procedures		
CULA 157 (CUL 157T) Pantry and Garde-Manger		
CULA 158 (CUL 158T) Short Order Cookery		
CULA 160 (CUL 160T) Soups, Stocks, and Sauces		
CULA 161 (CUL 161T) Meats and Vegetables		
CULA 165 (CUL 165T) Baking and Pastry	-	10
Total	16	19

**Food Service Management-A.A.S. Degree**

**Tom Campbell, Director**

The Food Service Management program culminates in an Associate of Applied Science Degree. This program combines theory, practical training, and industry experience to prepare students for entry-level and management positions in the diverse and dynamic hospitality industry. The degree program is designed to continue principles taught in the Culinary Arts certificate program. The spectrum of learning is expanded to include more in-depth professional studies thereby enhancing employment options. Accreditation by the American Culinary Federation ensures graduates' eligibility for certification as an ACF "Certified Culinarian".

Technical subject areas include introduction to the industry, basic baking, patisserie, cost control, dining room service, Garde manger, nutritional cooking, fundamental cooking principles, short order cookery, a la carte stations, menu planning, supervised internship, and the recognized sanitation certificate awarded by the National Restaurant Association Educational Foundation.

The Associate of Applied Science degree is awarded upon successful completion of the program.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

**Autumn Entry :**

<b>First Year</b>		<b>A</b>	<b>S</b>
CAPP 120 (CRT 100) Introduction to Computers	-	3	
COMX 115S (COM 150S) Introduction to Interpersonal Communication 3	-		3
CULA 101 (CUL 151T) Introduction to Food Service	5		-
CULA 105 (CUL 175T) Food Service Sanitation	2		-
CULA 210 (FSM 180T) Nutritional Cooking	-	3	
M 105 (MAT 107T) Contemporary Mathematics	3		-
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	-	3	
WRIT 121 (WTS 115) Introduction to Technical Writing	3		-

**Food Station Experience from following courses:**

CULA 156 (CUL 156T) Dining Room Procedures			
CULA 157 (CUL 157T) Pantry and Garde-Manger			
CULA 158 (CUL 158T) Short Order Cookery			
CULA 160 (CUL 160T) Soups, Stocks, and Sauces			
CULA 161 (CUL 161T) Meats and Vegetables			
CULA 165 (CUL 165T) Baking and Pastry	-	10	
Total	16	19	

<b>Second Year</b>		<b>A</b>	<b>S</b>
BMGT 216 (BUS 234T) Psychology of Management and Supervision	-	4	
CRT 205T Food Service Management Computer Applications	-	2	
CULA 270 (FSM 270) Purchasing and Cost Controls	5		-
CULA 299 (FSM 271) Culinary Arts Capstone	-	4	
CULA 275 (FSM 275T) Patisserie	-	2	
CULA 298 (FSM 290T) FSM Internship	-	4	

**Food Station Experience from following courses:**

CULA 156 (CUL 156T) Dining Room Procedures			
CULA 157 (CUL 157T) Pantry and Garde-Manger			
CULA 158 (CUL 158T) Short Order Cookery			
CULA 160 (CUL 160T) Soups, Stocks, and Sauces			
CULA 161 (CUL 161T) Meats and Vegetables			
CULA 165 (CUL 165T) Baking and Pastry	10		-
Total	15	16	

**Management-A.A.S. Degree**

**Brian Larson, Director**

The Management program provides graduates with the skills required to own and operate their own businesses or become sales representatives and managers of retail organizations.

**Entrepreneurship Option**

Students selecting the Entrepreneurship option will focus on venture initiation, constructing business plans, generating financing, and beginning operations. Areas of study focus on the critical factors involved in accounting, sales strategy, advertising and marketing issues complemented with supervisory skills. Students gain knowledge of basic disciplines of business through both classroom and hands-on training. Computer technology and web development are added components to assist students to compete in today's changing business climate. Applications of the elements learned are included where practical. Successful graduates will depart with a comprehensive business plan and presentation skills required to approach financiers.

The Associate of Applied Science degree is awarded upon successfully completing the program.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

**Autumn Entry:**

<b>First Year</b>		<b>A</b>	<b>S</b>
ACTG 101 (ACC 132T) Accounting Procedures I	4		-

ACTG 102 (ACC 133T) Accounting Procedures II	-	4
BMKT 112 (BUS 112T) Applied Sales	2	-
BMKT 114 (BUS 113T) Psychology of Selling	-	3
BMKT 225 (BUS 125T) Marketing	3	-
BGEN 235 (BUS 135T) Business Law	-	3
CAPP 120 (CRT 100) Introduction to Computers	3	-
CSCI 172 (CRT 172) Introduction to Computer Modeling	-	3
M 115 (MAT 117) Probability and Linear Math	3	-
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	-	3
WRIT 101 (WTS 101) College Writing I	3	-
Total	18	16
<b>Second Year</b>		
	<b>A</b>	<b>S</b>
ACTG 180 (ACC 134T) Payroll Accounting	3	-
BUS 210 Critical Analysis for Business	-	3
BMKT 240 (BUS 224T) Advertising	-	3
BUS 238T Financial Planning	-	3
BMGT 216 (BUS 243T) Psychology of Management and Supervision	4	-
BMGT 299 (BUS 250T) Capstone: Entrepreneurship	-	3
BMGT 298 (BUS 290T) Management Internship	2	-
COMX 111A (COM 160A) Introduction to Public Speaking	-	3
CRT 260 Digital Publishing and Design	3	-
CRT 263 Web Design and Development	-	3
ECNS 201S (ECON 111S) Principles of Microeconomics	3	-
Total	15	18

### Sales and Marketing Option

Students selecting the Sales and Marketing option combine the technical sales and promotional related courses as a foundation for seeking middle to advanced positions in the sales and marketing field. Students will be required to complete sales presentations using appropriate techniques applying consultative and negotiation selling skills. Students will study and demonstrate effective sales techniques, plan and implement effective visual displays and presentations, and develop strong record keeping skills and management of accounts. Additional emphasis in computer skills, accounting, and technical writing provide students the needed edge for this competitive career.

An Associate of Applied Science degree is awarded to students successfully completing the program.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

#### Autumn Entry:

<b>First Year</b>		
	<b>A</b>	<b>S</b>
ACTG 101 (ACC 132T) Accounting Procedures I	4	
ACTG 102 (ACC 133T) Accounting Procedures II		4
BMKT 109 (BUS 109T) Visual Merchandising and Display	-	3
BMKT 112 (BUS 112T) Applied Sales	2	-
BMKT 114 (BUS 113T) Psychology of Selling	-	3
BMKT 225 (BUS 125T) Marketing	3	-
CAPP 120 (CRT 100) Introduction to Computers	3	-
CSCI 172 (CRT 172) Introduction to Computer Modeling	-	3
COMX 250 (HMR 110) Introduction to Public Relations	-	3
M 115 (MAT 117) Probability and Linear Math	3	-
WRIT 101 (WTS 101) College Writing I	3	-
Total	18	16
<b>Second Year</b>		
	<b>A</b>	<b>S</b>
ACTG 180 (ACC 134T) Payroll Accounting	3	-
BGEN 235 (BUS 135T) Business Law	-	3
BMKT 240 (BUS 224T) Advertising	-	3
BMGT 216 (BUS 243T) Psychology of Management and Supervision	-	4
BMGT 298 (BUS 290T) Management Internship	2	-
COMX 111A (COM 160A) Introduction to Public Speaking	3	-
CRT 260 Digital Publishing and Design	3	-
CRT 263 Web Design and Development	-	3
ECNS 201S (ECON 111S) Principles of Microeconomics	3	-
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	3	-
Total	17	16

### Sales and Marketing-Certificate of Applied Science

Brian Larson, Director

Students in the Sales and Marketing program are trained in sales and supportive tasks relating to retail or wholesale organizations. They study the application of the latest counselor selling techniques to assist clients in meeting needs. The curriculum also involves marketing activities, bookkeeping functions, and merchandising skills.

Students are awarded a Certificate of Applied Science after successfully completing the program.

The Sales and Marketing program satisfies the requirements for the first year of the Management degree, Sales and Marketing option.

Students entering autumn semester may complete the program in two semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

**Autumn Entry:**

First Year	A	S
ACTG 101 (ACC 132T) Accounting Procedures I	4	-
ACTG 102 (ACC 133T) Accounting Procedures II	-	4
BMKT 109 (BUS 109T) Visual Merchandising and Display	-	3
BMKT 112 (BUS 112T) Applied Sales	2	-
BMKT 114 (BUS 113T) Psychology of Selling	-	3
BMKT 225 (BUS 125T) Marketing	3	-
CAPP 120 (CRT 100) Introduction to Computers	3	-
CSCI 172 (CRT 172) Introduction to Computer Modeling	-	3
COMX 250 (HMR 110) Introduction to Public Relations	-	3
M 115 (MAT 117) Probability and Linear Math	3	-
WRIT 101 (WTS 101) College Writing I	3	-
Total	18	16

**Medical Information Technology- A.A.S. Degree**

Michelle Boller, Interim Director

The Medical Information Technology program provides three options for students with the flexibility of choosing a career in health information coding specialty, medical administrative assisting or medical reception certificate. The course of study includes general as well as administrative duties of a medical facility. These duties involve scheduling appointments, interacting with patients, submitting patient insurance claims using current coding procedures, and maintaining medical and financial records. Additionally, students are exposed to the principles of medical ethics and medical legal issues facing health providers. All Students in the Medical Information Technology degree options acquire work-related skills through internship experiences. Students successfully completing this program are awarded the Associate of Applied Science degree.

**Health Information Coding Specialty Option**

Students are trained to analyze health records and to accurately abstract and code procedures and diagnoses utilizing legal and regulatory standards. An understanding of anatomy, medical terminology and disease processes will provide students with the necessary tools to determine correct codes and sequences.

**Autumn Entry:**

First Year	A	S
AHMS 108 (MED 165T) Health Data Content & Structure (on-line spring)	-	2
AHMS 144 (MED 154T) Medical Terminology (on-line)	3	-
AHMS 156 (MED 153T) Medical Billing Fundamental (on-line)	-	3
AHMS 220 (MED 161T) Medical Office Procedures	4	-
BIOH 108 (SCN 115) Basic Anatomy	-	3
CAPP 120 (CRT 100) Introduction to Computers	3	-
CAPP 154 (CRT 108) MS Word	-	3
M 105 (MATH 107) Contemporary Mathematics or M 115 (MAT 117) Probability and Linear Math	3	-
WRIT 121 (WTS 115) Introduction to Technical Writing	-	3
Total	13	14
Second Year	A	S
AHMS 160 (MED 220) Beginning Procedural Coding	3	-
AHMS 162 (MED 210) Beginning Diagnosis Coding	3	-
AHMS 212 (MED 250T) CPT Coding	-	3
AHMS 214 (MED 240T) ICD-9 Coding	-	3
AHMS 245 Simulated Lab: Medical Support	-	3
MED 155 Medical Software Applications	-	3
AHMS 298 (MED 290T) Medical Information Internship (180 hours)	-	3



BIOM 250N (BIOL 106N) Microbiology for Health Sciences	- 3
COMX 115S (COM 150S) Introduction to Interpersonal Communications	- 3
AHMS 216 (PHA 160) Pharmaceutical Products	3 -
PSYX 100S (PSYC 100S) Intro to Psychology or SOCI 101S Introduction to Sociology	4 -
Total	16 18

#### Medical Administrative Assisting Option

Medical administrative assistants are trained to effectively greet patients, supervise office personnel, schedule appointments, post charges and payments, submit insurance claims using current coding procedures, maintain patient records, calculate payroll, create and update the office procedures manual, assist in improving work flow and office efficiencies, and transcribe letters and patient chart notes.

Students successfully completing the program are awarded the Associate of Applied Science degree. Students may enter either autumn or spring semester.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

#### Autumn Entry:

First Year		A	S
ACTG 100 (ACC 131T) Essentials of Accounting		-	4
AHMS 144 (MED 154T) Medical Terminology (on-line)		3	-
AHMS 156 (MED 153T) Medical Billing Fundamentals (on-line)		3	-
AHMS 220 (MED 161T) Medical Office Procedures		4	-
CAPP 120 (CRT 100) Introduction to Computers		3	-
CAPP 154 (CRT 108) MS Word		-	3
M 105 (MATH 107) Contemporary Mathematics or M 115 (MAT 117) Probability and Linear Math		-	3
MED 155T Medical Software Applications		-	3
BMGT 216 (BUS 243T) Psychology of Management & Supervision		-	4
TASK 145 (BUS 106T) Records Management		-	2
WRIT 121 (WTS 115) Introduction to Technical Writing		3	-
Total		16	19
Second Year		A	S
ACTG 180 (ACC 134T) Payroll Accounting		-	3
AHMS 108 (MED 165T) Health Data Content and Structure (on-line)		-	2
AHMS 298 (MED 290) Medical Information Internship		-	3
BIOH 108 (SCN 115N) Basic Anatomy		3	-
BUS 140T Customer Service		-	4
CAPP 254 (CRT 115T) Advanced MS Word		3	-
CAPP 156 MS Excel		3	-
COMX 115S (COM 150S) Introduction to Interpersonal Communications		3	-
TASK 240 (BUS 240T) Administrative Support for the Office		3	-
Total		15	12

#### Medical Reception-Certificate of Applied Science

Michelle Boller, Interim Director

The Medical Reception curriculum provides students with the skills needed to provide exceptional service to patients in a medical setting. In this role the essential duties performed include scheduling appointments, screening telephone calls, obtaining and entering patient registration information, releasing appropriate medical information, maintaining medical records and managing patient flow. Medical Reception students are instructed in the financial transactions of a practice and will have a clear understanding of all the activities in the billing and collection cycle. Students are provided a broad overview of medical law and the principles of medical ethics as well as the guidelines established by HIPAA. The training also prepares students for the position of a hospital ward secretary.

Students successfully completing the program are awarded a Certificate of Applied Science.

#### Autumn Entry:

First Year		A	S
ACTG 100 (ACC 131T) Essentials of Accounting		-	4
AHMS 144 (MED 154T) Medical Terminology (on-line)		3	-
AHMS 156 (MED 153T) Medical Billing Fundamentals (on-line)		3	-
AHMS 220 (MED 161T) Medical Office Procedures		4	-
CAPP 120 (CRT 100) Introduction to Computers		3	-
CAPP 154 (CRT 108) MS Word		-	3
M 105 (MATH 107) Contemporary Math or M 115 (MAT 117) Probability and Linear Math		-	3

MED 155 Medical Software Applications	- 3
BMGT 216 Psychology of Management & Supervision	- 4
TASK 145 (BUS 106T) Records Management	- 2
WRIT 121 (WTS 115) Introduction to Technical Writing	3 -
Total	16 19

### Paralegal Studies-A.A.S. Degree

Tom Stanton, Director

This program is approved by the American Bar Association. The Paralegal Studies program prepares students for challenging and diverse careers in private law practices and in the law-related areas of business, industry, and government. The goals of the Paralegal Studies program are to enable students, through theoretical and practical legal education, to understand the function of law, to work as paralegals in the effective delivery of legal services, and to enhance the legal profession. This program is designed to equip students with skills to analyze legal issues and to perform a variety of activities including drafting legal documents, interviewing clients, conducting legal research, and preparing cases for trial. Students utilize current technology through Internet research and legal and general office software applications. Paralegal studies students receive the necessary legal training to take advantage of new career opportunities in all sectors of the economy. Students are exposed to the principles of legal ethics and are cautioned regarding restrictions against the unauthorized practice of law by layperson's. Paralegals may not provide legal services directly to the public, except as permitted by law.

The Associate of Applied Science degree is awarded upon successful completion of the program.

Students entering autumn semester may complete the program in four semesters as outlined below. Students entering spring should meet with advisor prior to selecting courses.

Students attend classes on both the Mountain and East campuses.

#### Autumn Entry:

First Year	A	S
ACTG 100 (ACC 131T)Essentials of Accounting	-	4
CAPP 120 (CRT 100) Introduction to Computers	3	-
CAPP 154 (CRT 108) MS Word	-	3
LEG 183T Contracts	-	2
LEG 184T Legal Ethics	2	-
LEG 185T Introduction to Paralegal Studies	3	-
LEG 186T Introduction to Legal Research	2	-
LEG 187T Legal Research/Writing I	-	2
LEG 188T Principles of Real Estate	-	2
LEG 189T Criminal Procedures	-	3
M 105 (MAT 107) Contemporary Mathematics	3	-
PSCI 210S (PSC 100S) Introduction to American Government	-	3
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	3	-
WRIT 101 (WTS 101) College Writing I	3	-
Total	19	19
Second Year	A	S
BUS 210 Critical Analysis for Business	3	-
COMX 111A (COM 160A) Introduction to Public Speaking	3	-
CRT 188T Computers and Law	3	-
LEG 270T Civil Litigation	3	-
LEG 282T Contemporary Legal Issues	-	3
LEG 283T Trial Preparation	-	3
LEG 285T Family Law	-	3
LEG 286T Legal Research/Writing II	2	-
LEG 287T Legal Research/Writing III	-	2
LEG 288T Estate Administration	-	2
LEG 290T Paralegal Studies Internship	-	2
SOCI 101S (SOC 110S) Introduction to Sociology	3	-
Total	17	15

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

Accounting (ACTG) - Course Descriptions

100, 101, 102, 180, 191, 192, 202, 211, 215, 250, 291, 298

Allied Health Medical Support (AHMS) - Course Descriptions

108, 144, 156, 160, 162, 191, 192, 220, 255, 256, 292, 298

Business General (BGEN) - Course Descriptions

105S, 160S, 235

Business Management (BMGT) - Course Descriptions

216, 242, 298, 299

Business Marketing (BMKT) - Course Descriptions

109, 112, 114, 225, 240

Business (BUS) - Course Descriptions

140T, 195T, 210, 238T, 291T, 296T

Culinary Arts (CULA) - Course Descriptions

101, 105, 156, 157, 158, 160, 161, 165, 191, 192, 210, 270, 275, 291, 298, 299

Human Resources (HMR) - Course Descriptions

110, 290T, 295T

Medical Information Systems & Medical Assisting (MED) - Course Descriptions

155T

Paralegal Studies (LEG) - Course Descriptions

183T, 184T, 185T, 186T, 187T, 188T, 189T, 195T 196T, 270T, 282T, 283T, 285T, 286T, 287T, 288T, 290T, 295T

Technical Administrative Skills (TASK) - Course Descriptions

145, 191, 192, 240

## Missoula College\*

Barry Good, Dean

Lynn Stocking, Associate Dean

Missoula College University of Montana\* is the new name of the college formerly known as the University of Montana College of Technology. The renaming is a part of a Montana Board of Regents initiative for Montana's two-year colleges.

Our mission, as the two-year college of the University of Montana, is to provide open access to higher education that expands opportunities for Montana residents. We are a gateway to comprehensive education, delivering high quality, student-centered, professional, technical, transfer, and workforce programs and courses.

The Missoula College offers programs and services on four campuses-the East Campus at 909 South Avenue West, the West Campus at 3639 South Avenue West, Mountain Campus at 32 Campus Drive, and the Bitterroot College University of Montana in Hamilton. Student support offices including Enrollment Services, Disability Services for Students, Financial Aid, Registrar's, Career Services, Educational Opportunity (EOC), Outreach Programming Office, Academic Advising, and administrative offices are located at the East Campus. All business technology programs, applied computing and electronics programs, culinary arts programs, health professions programs, as well as a branch of the Mansfield Library, The Bookstore at the Missoula College, and a dining room are located on the East Campus. All industrial technology programs are located on the West Campus.

Students may attend courses at four campus sites and online. Courses are scheduled at a variety of times between 7 a.m. and 10 p.m., Monday through Saturday. The Missoula College Dean's Office, department chairs and/or program directors may be contacted for specific program and scheduling information.

### Bachelor of Applied Science Degree Program

A Bachelor of Applied Science degree is offered by the University of Montana in Missoula through the College of Arts and Sciences in collaboration with the Missoula College. The initial contact for information and degree planning for the B.A.S. degree is the Missoula College. This degree program is available for students who have completed Associate of Applied Science degrees from accredited institutions and who wish to continue toward completing a baccalaureate degree. See the College of Arts and Sciences/Applied Science section of this catalog.

### Associate of Applied Science and Certificate of Applied Science Programs

The Associate of Applied Science degree and Certificate of Applied Science programs offered in the College are designed to lead an individual to employment in a specific career or career pathway. In some instances, particularly in Health Professions, the degree or certificate is a prerequisite for taking a licensing examination. The Associate of Applied Science degree is not typically considered a transfer degree, although opportunities do exist in The University of Montana and some other baccalaureate degree-granting institutions for continuing in programs such as the University's Bachelor of Applied Science degree program.

The College's Surgical Technology and Respiratory Care programs are reviewed by their respective Joint Review Committees and accredited by the Commission on Accreditation of Allied Health Education Programs. The Food Service Management program is

accredited by the American Culinary Federation Educational Institute Accrediting Commission, the Paralegal Studies program is approved by the American Bar Association, and the Nursing programs are approved by the Montana Board of Nursing and the National League for Nursing Accrediting Commission.

#### Associate of Arts Degree Program

The Associate of Arts Degree is a general education transfer degree and does not officially include a major or minor course of study. The Associate of Arts Degree does indicate areas of emphasis and areas of concentration. To receive an Associate of Arts (AA) degree, students must successfully complete all the general education requirements as described by Montana Board of Regents policy 301.10 Appendix 1. Students seeking the AA are not required to sit for the upper-division writing proficiency assessment. The minimum grade point average for the 60 credits required for the AA is 2.0.

#### Credit Applicable Toward an Associate of Arts and Baccalaureate Degrees

The following Missoula College courses have been approved to count as elective credit, and/or General Education credit for the Associate of Arts and baccalaureate degrees. With departmental approval, some may count toward major or cognate requirements. With departmental approval, up to 10 additional credits from courses not on this list may be counted. Refer to the sections on Technical Courses and Credit Maximums in this catalog. See index.

- . AASC 100, 101
- . BIOB 101N
- . BIOH 108 (SCN 100N)
- . BIOH 201N (SCN 201N, lecture)
- . BIOH 202N (SCN 201N, lab)
- . BIOH 211N (SCN 202N, lecture)
- . BIOH 212N (SCN 202N, lab)
- . BGEN 105S (BUS 103S)
- . COMX 102, 115S, 111A, 140, 212, 217A, 242, 219S (COM 150S, 160A, 217A, 242, 260S)
- . CAPP120 (CRT 100), 134(CRT 108)
- . CSCI 110 (CRT121), 215E (CRT 122E), 172 (CRT 172), 221 (CRT 203), 113 (CRT 270)
- . EET 232, 260
- . ENST 230H
- . CULA 270, 299 (FSM 270, 271)
- . M 105, 115 (MAT 117), 121 ( MAT 118), 122 (MAT 119), 151 (MAT 120), 162 (145)
- . NRSNG (NUR) all courses, except 291 (except 295T)
- . NUTR 221N (SCN 150)
- . PSYX 100S (PSY 100S), 161S (PSY 110S), 230S (PSY 201), 238, 240
- . SCN 100N, 105N, 175N, 260N
- . WRIT 101 (WTS 101), 121 (WTS 115), 221 (WTS 215)
- . LIT 110L (WTS 120L), 120L (WTS 121L)
- . CRWR 240A (WRIT 184A, WTS 184A), CRWR 210A (WRIT 185A, WTS 185A), CRWR 211A (WRIT 186A, WTS 186A)

#### Academic Support Services

Services designed to increase the success of students enrolled at The University of Montana Missoula College are available at the College. Such services include Academic Advising Center, tutoring in the Academic Support Center and computer-based academic learning tools, study skills workshops, basic skills developmental courses, access to Disability Services for Students, academic and financial aid reinstatement and follow-up assistance, individual student retention services, and other learning support activities.

#### Student Support

Donna Bakke, M.A., University of Montana, 2005 (Dual Enrollment & Big Sky Pathways)

Betsy Cincoski (Academic Support Center)

Tammy Freimund, Director, Ph.D., University of Minnesota, 1993 (Academic Advising Center)

Cec Gallagher, Director, Ed.D., Montana State University, 1998 (Retention & Reinstatement)

Chelsea Rayfield, B.A., University of Montana, 2009 (Academic Advising Center)

Brandie Terpe, B.A., University of Montana, 2001 (Academic Advising Center)

Vida Wilkinson, Director, Ph.D., Colorado State University, 2008 (Outreach)

#### Faculty

Nick Arthur B.S., University of North Texas, 1997 (Health Professions)

Thomas Campbell, Certified Executive Chef, 1990 (Business Technology)

Cathy Corr, M.Ed., Montana State University, 1989 (Applied Arts and Science, Chair)

Josef Crepeau, M.A., University of Montana, 1994 (Applied Arts and Science)

Anne Delaney, M.B.A., University of Montana, 2002 (Health Professions)

Linda EagleHeart-Thomas, Ph.D., The University of Montana, 2002 (Applied Arts and Sciences)

Deborah Fillmore, M.E., University of Montana, 2000, R.N. (Health Professions)

Cheryl Galipeau, M.E., University of Montana, 1999 (Business Technology)

Tom Gallagher, M.S., Western Washington University, 1996 (Applied Computing and Electronics, Chair)

Patty Gauthier, M.S., Montclair State College, 1986 (Health Professions)

James Headlee, M.E., Northern Montana College, 1987 (Industrial Technology)

Colin Henderson, Ph.D., University of New Mexico, 1985 (Applied Arts and Sciences)

Penny Jakes, M.E., University of Montana, 1981 (Applied Computing and Electronics)

Daneen Jeppson, F.N.P., M.S.N., University of Utah, 1980 (Health Professions)

Theresa Kinney, M.S.N., University of Phoenix, 2012 (Health Professions)

Brian Larson, (Business Technology, Chair)

Bradley Layton, Ph.D., University of Michigan, 2003 (Applied Computing and Electronics)

Mary McHugh, PharmD, University of Montana, 2007 (Health Professions)

Mary Anne Moseley, B.A., University of Montana, (Health Professions)

Mark Medvetz, M.F.A., University of Montana, 1989 (Applied Arts and Sciences)

Mary Nielsen, M.S.N., Clarkson College, 2000, R.N. (Health Professions, Chair)

Tim Olson, M.B.A., University of Montana, 1997, C.P.A. (Business Technology)

Alison Pepper, Ph.D., University of Montana, 2009 (Applied Arts and Sciences)

Mark Raymond, B.S., University of Montana, 2007 (Industrial Technology)

Zachary Reddig, B.S., Montana State University-Northern, 2005 (Industrial Technology)

Kim Reiser, M.A., University of Montana, 2000 (Applied Arts and Sciences)

Niki Robinson, M.E., University of Montana, 2000 (Business Technology)

Xueying (Steve) Shen, Ph.D., University of California, Riverside, 1986 (Applied Computing and Electronics)

Deborah Sloan, Ph.D., University of Montana, 2005 (Applied Arts and Sciences)

Thomas Stanton, J.D., University of Cincinnati, 1991 (Business Technology)

Steve Stiff, M.Ed., University of Montana, 2001, 2007 (Applied Computing and Electronics)

Lynn Stocking, M.E., University of Montana, 1987 (Associate Dean; Director, Academic Computing; Business Technology)

Linda Strelnik, B.S., University of Montana, 1976, CST/CFA (Health Professions)

Lisa Swallow, M.S., California State University, Chico, 1990, C.P.A., C.M.A. (Business Technology)

Rhonda Tabish, Certificate, 1974 (Applied Computing and Electronics)

John Walker, M.B.A., University of Montana, 1990 (Industrial Technology)

## Adjunct Faculty

Susan Anderson, M.B.A., University of Oregon, 1989 (Business Technology)

Jeffrey Arends, M.Ed., University of Montana, 2010 (Applied Arts and Sciences)

Aimee Ault, B.A., Pacific University, 2002. A.A.S., University of Montana, 2007 (Business Technology)

Kristi Bailey, C.S.T./C.F.A., Missoula College, 1994 (Health Professions)

Elizabeth Baker, M.S., Stanford University California, 2006 (Applied Computing and Electronics)

B.J. Banister, A.A.S., University of Montana, 1999 (Health Professions)

Dave Barrett, M.F.A., University of Montana, 1999 (Applied Arts and Sciences)

Anthony Becker, M.B.A., University of Montana, 2003 (Business Technology)

Michelle Boller, M.A., George Washington University, 2004 (Business Technology)

Lindsey Bow, A.A.S., Spokane Community College, 2006 (Health Professions)

Susann Bradford, Ed.D., University of Montana, 2007 (Applied Arts and Sciences)

Kathy Brauer, B.A. Ed., University of Montana, 1984 (Health Professions)

Monty Brekke, B.S., Northern State University, 1961 (Applied Arts and Sciences)

Christy Ann Brown, M.A., New York University, 2004 (Applied Arts and Sciences)

Erin Browning, B.S.N., University of Montana, 2001 (Health Professions)

Dianne Burke, M.S., University of Houston, 1984 (Applied Computing and Electronics)

Dora Cardillo, B.S., Boise State University, 1985 (Health Professions)

Wendi Carpenter (Business Technology)

Bridget Carson, M.F.A., University of Montana, 2006 (Applied Arts and Sciences)

Jennifer Corbin, Ph.D., University of Montana, 2009 (Applied Arts and Sciences)

Mary-Ellen Correia, A.A.S., Montana State University, 2011 (Health Professions)

Peter Costello, B.A., University of Montana, 1985 (Applied Computing and Electronics)

Michael Cox, M.S., Aquinas Institute of Theology, 2006 (Health Professions)

Leslie Croot, M.S., Western Washington University, 2001 (Applied Arts and Sciences)

Ann Crowley, B.A., Carroll College, 1981 (Health Professions)

Janet Derrington, M.S.N., University of Pennsylvania, 1977 (Health Professions)

Kathleen de Onis, B.S., Northwestern University, 2005 (Applied Arts and Sciences)

Creg Dieziger, A.A.S., ITT Technical Institute, 1993 (Applied Computing and Electronics)

Marya Dolezal, M.Ed., Arkansas State University, 2011 (Applied Arts and Sciences)

Jessica Dougherty-McMichael, Ph.D., University of Notre Dame, 2011 (Applied Arts and Sciences)

Mary Jeanne Doyle, M.S., Eastern Kentucky University, 1985 (Applied Arts and Sciences)

Ethan Eyestone, A.A.S., University of Montana, 2001 (Health Professions)

Jed Fiebelkorn, M.S., University of Montana, 2006 (Applied Arts and Sciences)

Garth Flint, M.A., University of Montana, 1996 (Applied Arts and Sciences)

Kirk Flynn, B.S., University of Montana, 2001 (Applied Computing and Electronics)

Wendy Frank, B.S., Montana State University-Billings (Health Professions)

Rodney Frost (Industry Technology)

Jennifer Geist, M.A., University of Montana, 2007 (Applied Arts and Sciences)

Bill Gillespie, M.I.S.M., University of Phoenix, 2006 (Applied Computing and Electronics)

Jennifer Giutarri, J.D., University of Montana, 2005 (Business Technology)

Gregory Guscio, M.S., University of Montana, 2007 (Applied Computing and Electronics)

Mark Hanson, Ph.D., University of Virginia (Health Professions)

Jim Harris (Industrial Technology)

Wally Higgins, B.A., University of Montana, 1974 (Applied Computing and Electronics)

William Hillman, A.S. Park University, 2001 (Business Technology)

Colleen Holmquist, A.A., University of Montana, 1994 (Health Professions)

Andrea Johnson, M.A., Appalachian State University, 2004 (Applied Arts and Sciences)

Lois Johnson, B.S.N, Montana State University, 1992 (Health Professions)

Scott Johnson, B.S., University of Montana, 1981 (Business Technology)

Todd Johnson, M.A., University of Montana, 1998, (Applied Arts and Sciences)

Elizabeth Kelsey, M.Ed., University of Montana, 2008 (Applied Arts and Sciences)

Jimmy Kendall, M.A., University of Montana, 2012 (Applied Arts and Sciences)

Brian Kerns, M.S., Northwestern University, 1981 (Applied Computing and Electronics)

Tory Kimpton, MA, University of Montana, 2009 (Applied Arts and Sciences)

Marcia Kmetz, Ph.D., University of Nevada, Reno, 2011 (Applied Arts and Sciences)

Jode Kraft, M.E., University of Montana, 2008 (Business Technology)

Kim Larson (Business Technology)

Leslie Lauren, M.F.A., University of Montana, 2009 (Applied Arts and Sciences)

Kins Loree, Ph.D., Ashford University, 2000 (Applied Arts and Sciences)

Scott Louis, RTT California Community College for Health Sciences (Health Professions)

Jennifer Luebke, BA, University of Montana, 2008 (Applied Arts and Sciences)

Patrick Marx, MPA, Harvard Kennedy School, 1998 (Applied Arts and Sciences)

James Mason, B.S. University of Montana, 2001, B.S., University of Montana-Western, 2008 (Industrial Technology)

Phyllis McCarthy, B.S., University of Nevada, Las Vegas, 1994 (Health Professions)

Flora McCormick, M.A., Western Seminary, 2008 (Applied Arts and Sciences)

Beth McHugh, M.F.A., University of Montana, 2009 (Applied Arts and Sciences)

Jacqueline McKenna, B.S., University of Montana, Western, 1991 (Applied Arts and Sciences)

Blake Miller, M.A., University of Montana, 2012 (Applied Arts and Sciences)

Charles Miller, M.S., Indiana University, 1976 (Health Professions)

Jeffrey Miller, Ph.D., University of New England, Armidale, N.S.W., Australia, 1983 (Applied Arts and Sciences)

Lori Mitchell, B.S.N., Montana State University, 2005 (Applied Arts and Sciences)

Ed Moore, M.E., University of Montana, 1988 (Applied Arts and Sciences)

David Morris, C.S.T., Missoula College, 1986 (Health Professions)

David Neu, M.F.A., University of Montana, 1993 (Industrial Technology)

Suzanne Noyd, B.S., University of South Alabama, 1990 (Business Technology)

David Optiz, (Business Technology)

Nicole Rogers-Norton, B.A., C.S.T., University of Montana (Health Professions)

Lora Parker, B.S., University of Montana, 1995 (Business Technology)

Gregory Peters, M.S., University of Montana, 2003 (Applied Arts and Sciences)

Steven Phillips, M.S., University of Arizona, 2001 (Applied Arts and Sciences)

Brad Platts (Industrial Technology)

Ashley Preston, Ph.D., University of Montana, 2001 (Applied Arts and Sciences)

Larry Reinholz, A.A.S., 2005 (Industrial Technology)

Dick Richardson, M.A., University of Montana, 2002 (Industrial Technology)

Troy Savage, B.S., Montana State University, 1982 (Applied Computing and Electronics)

Brooke Schiewek, A.A.S., Missoula College, 2001 (Health Professions)

Mandy Snook, M.A., Western Governors University, 2010 (Applied Arts and Sciences)

Erin Steele, M.A., University of Memphis, 2003 (Applied Arts and Sciences)

Michael Steffenson, A.A.S., Alexandria Technical College, 1990 (Industrial Technology)

Mona Sumner, MHA, University of Minnesota, 1983 (Applied Arts and Sciences)

Sara Thomas, B.E., University of Madras, 2000 (Applied Computing and Electronics)

Teresa Thompson, J.D., University of Montana, 1986 (Business Technology)

Lee Tickell, (Applied Computing & Electronics, Business Technology)

Sarah Topp, C.S.T., University of Montana, (Health Professions)

Brandee Tyree, BA, University of Montana, 1996 (Applied Arts and Sciences)

Russell VanPaepeghem, M.S., University of Montana, 2010 (Applied Arts and Sciences)

Krisztian Varsa, M.S., Cornell University, 2007 (Applied Computing and Electronics)

Melissa Walker, M.Ed., University of Montana, 2006 (Applied Arts and Sciences)

Lucas Whitcher, M.S., Central Washington University, 2010 (Applied Arts and Sciences)

Ana Willenbrock, A.A.S., Culinary Institute of America, 2000 (Business Technology)

David Williams, B.S., University of California, Riverside, 1981 (Applied Arts and Sciences)

Rebecca Wood, MA, University of Montana 2004, (Applied Arts and Sciences)

Janet Woodburn, M.Ed., University of Missouri, Columbia, 1975 (Applied Arts and Sciences)

Kim Zupan, M.F.A., University of Montana (Industrial Technology)

Mike Zwicker, B.S., University of Mary, 2005 (Health Professions)

## **Department of Health Professions**



Special Degree Requirements  
Courses

Mary Nielson, Chair

### Special Degree and Certificate Requirements

The Health Professions Department of Missoula College of University of Montana seeks to prepare students to be health practitioners who are technically competent and who are safe and in a variety of clinical, agency and community settings. The Health Professions Department offers four Associate of Applied Science (A.A.S.) Degrees, one Associate of Science (A.S.) Degree, and one Certificate of Applied Science (CAS) program with courses and learning experiences that contribute to understanding the health needs of individuals and society. Clinical affiliations and on-site experiences are essential elements of all programs; local and regional communities, their agencies, and organizations are a valuable resource and provide cooperative learning experiences in health delivery systems.

The goals of the Health Professions Department are:

1. To provide programs of study which integrate a variety of health-related disciplines to prepare students for careers in health professions.
2. To contribute to the liberal education of students through courses designed to provide knowledge and understanding of human health, fitness and health delivery systems.
3. To meet the continuing education needs of health professionals.

The Health Professions Department offers A.A.S. degrees in Practical Nursing (PN), Radiologic Technology, Respiratory Care, Surgical Technology, an A.S. degree in Registered Nursing (ASRN), and a Certificate in Applied Science (CAS) in Pharmacy Technology. Admission to a specific Health Professions (HP) program requires documented completion of the Associate of Arts (AA) prerequisite courses as required by the specific HP program to which the student is applying. The AA prerequisite courses are different for each HP program and are listed in the specific program description in this catalog. A prerequisite course may be attempted a maximum of two (2) times. A minimum of a B grade must be earned in BIOH 201N/202N (SCN 201N) and BIOH 211N/212N (SCN 202N) Human Anatomy and Physiology I and II to be considered a passing grade. Any general prerequisite course required for an HP program must be taken prior to acceptance into the program. Additional requirements for admission to each of the HP programs vary and are also listed in the specific program descriptions.

Students enter Missoula College of University of Montana as a pre-program of their choice major. Students select courses from the required prerequisite courses after conferring with a Health Professions advisor within their major. Assessment of writing for placement in writing courses follows University guidelines and is offered during orientation and at various times during the semester. Math placement is determined by the ALEK math placement test found on the Missoula College web-page. Placement testing must be done prior to the initial advising appointment to assure that students are enrolled in the appropriate course to ensure success in writing and math studies.

Following successful completion of the prerequisite courses, admission to a health program requires a completed application for the specific program to which the student is applying, with documented completion of the program specific prerequisite courses. For program specific admission requirements and grade point average (GPA) expectations, please refer to the individual program descriptions or contact the specific HP Program Director. Applications can be obtained on the respective HP Program webpage. Students must submit a separate application to each HP program they desire admission to. If a student is accepted to multiple programs, the student can only accept admission to one HP program and must decline admission to the other program(s). Deadlines for applications are April 1 and November 1.

Students provide proof of the following health requirements prior to beginning the clinical portion of HP programs:

1. Two step Tuberculosis testing using the purified protein derivative (PPD) or chest x-ray (positive results will require a physician's letter before a student can continue in clinical settings);
2. Hepatitis B vaccine (HBV, a three injection series that may be obtained at Curry Health Center or other health care providers). The Hepatitis B vaccine must be started on or before acceptance into the program so the three injection series is completed by the time clinical begins. Respiratory Care students will also be required to have a Titer after series completion;
3. Measles, mumps and rubella (MMR) immunization (for those born before 1956, it is not required to have an MMR but a titer must be completed);
4. Influenza Vaccination;
5. Varicella (Chicken Pox) Vaccination;
6. CPR (BLS) training for health care providers;
7. Proof of medical insurance;
8. Criminal Background Check
9. Eye exams are required for surgical technology students due to work with lasers in surgery.
10. Respiratory care students are also required to have police background checks completed prior to entering clinical experiences.

Many licensing bodies/employing institutions in health care have increasingly stringent requirements and background checks as

conditions for licensing or employment. If students have a concern about this they should contact the licensing board for their specialty (contact information may be obtained from appropriate HP Program Director).

#### Course Fees and Supplies

Most programs in the Health Professions Department include courses with course fees and special supplies requirements. To obtain a complete listing of these additional items and costs, call the Missoula College Department of Health Professions Office at 406- 243-7868.

#### Health Professions AA Prerequisites

The groups of courses are different for each HP program and are listed in the specific program description. Some program courses may not be offered in all semesters. Consult your Program Advisor regarding which courses to take and when to enroll.

There are other courses which will enhance HP program studies and improve a student's ability to provide quality health care. Students may take these additional courses prior to acceptance to a HP program. Courses should be selected with the assistance of an approved HP program advisor, as taking too many courses may adversely affect financial aid. These courses include, but are not limited to:

- . BIOM 250N (BIOL 106N) Microbiology for Health Sciences
- . BIOH 201N and 202N (SCN 201N) Human Anatomy and Physiology I
- . BIOH 211N and 212N (SCN 202N) Human Anatomy and Physiology II
- . CHMY 121N (CHEM 151N) Introduction to General Chemistry
- . CHMY 122N (CHEM 152N) Introduction to General Chemistry Laboratory
- . CHMY 124N (CHEM 154N) Introduction to Organic and Biological Chemistry Laboratory
- . M 115 (MAT 117) Probability and Linear Mathematics
- . M 121 (MAT 118) College Algebra
- . AHMS 144 (MED 154T) Medical Terminology
- . AHMS 170E (MED 280E) Medical Ethics
- . PSYX 100S (PSY 100S) Introduction to Psychology
- . PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology
- . PSYX 230S (PSY 201) Developmental Psychology (prereq. PSY 100S)
- . NURT 211N (SCN 150) Basic Nutrition
- . SCN 175N Integrated Science
- . SCN 220 Human Physiology & Lab
- . SOCI 101S (SOC 110S) Introduction to Sociology

#### Pharmacy Technology-Certificate

Mary McHugh, Program Director

The American Society of Health System Pharmacists (ASHP) - accredited Pharmacy Technology Program at the University of Montana-Missoula College prepares students to function in hospital-based pharmacies, community pharmacies, and a number of other types of pharmacies. The two-semester program includes classroom, lab, and experiential learning opportunities. Lab and experiential hours allow students to integrate their classroom knowledge into the practical setting. Students are required to rotate to experiential sites and some may be outside the Missoula area. Transportation and housing are the student's responsibility.

The Pharmacy Technology Program is an autumn entry program. Applicants to the Pharmacy Technology program must complete the program specific application packet which can be obtained on the UM Missoula College Pharmacy Technology webpage. Please note that application deadlines are found on this webpage. Generally, applications to the program are due April 1 during the spring semester prior to the autumn semester program start. Documentation of required assessments must be included in the application packet. Assessments are required in writing, and in math. Transcripts are not accepted in place of the assessments. Students should place in Level 3 or higher in the ALEKS Math Assessment, and should attain a 7 or better on the E-Write Assessment, or provide alternate assessment scores as instructed in the application packet. Students who do not score high enough on assessments should consult with an advisor to arrange enrollment in the necessary courses to build their skills. Students must either complete the Intro to Computers (CAPP 120) or pass the challenge for CAPP 120 prior to enrollment in the Pharmacy Technology Program. The challenge is offered several times each year. Instructions for scheduling the challenge and assessments are found in the application on the program website: <http://www.cte.umt.edu/health/pharmacytech/>.

Once accepted into the program, all students are expected to register with the State of Montana as Pharmacy Technicians in Training. Please note the requirements of registration as a Pharmacy Technician in Training found on the application form on the Montana State Board of Pharmacy website: [http://bsd.dli.mt.gov/license/bsd\\_boards/pha\\_board/pdf/pha\\_tech.pdf](http://bsd.dli.mt.gov/license/bsd_boards/pha_board/pdf/pha_tech.pdf)

Students must complete the required autumn PHAR classes with a B or higher to proceed to the spring semester. If a student does not pass the required courses with a B or better, he/she will not be able to continue in the program and will need to apply for readmission. A student may take any required course a maximum of two (2) times.

After successfully completing the program, students are awarded a Certificate of Applied Science and are well prepared and encouraged

to sit for the national technician certification examination such as offered through the Pharmacy Technician Certification Board (PTCB). Some students may be prepared to take the PTCE as early as December of the first semester of the program, so that they may complete their experiential training as certified Pharmacy Technicians rather than Certified Technicians in Training.

Conviction of a crime (misdemeanor or felony) could leave an individual ineligible for participation in the certifying test and/or becoming registered in Montana as a certified pharmacy technician. Background checks are required prior to internships. Additionally, the Montana State Board of Pharmacy Application for Pharmacy Technician Registration includes a number of questions regarding personal history, including but not limited to criminal charges. Please contact the PTCB (Pharmacy Technician Certification Board), [www.ptcb.org](http://www.ptcb.org), and the Montana State Board of Pharmacy ([http://bsd.dli.mt.gov/license/bsd\\_boards/pha\\_board/board\\_page.asp](http://bsd.dli.mt.gov/license/bsd_boards/pha_board/board_page.asp)) if this is a potential problem.

Current salary range in Montana is from \$7 per hour to \$20 per hour, depending on employer, job duties, and experience.

Pharmacy Technology Program Curriculum:

	First Year	A	S
PHAR 100 (PHA 100) Introduction to Pharmacy Practice for Techs.	3	-	
PHAR 101 (PHA 101) Pharmacy Calculations	3	-	
PHAR 191 (PHA 102) Pharmacology for Technicians	3	-	
PHAR 104 (PHA 104/195) Pharmacy Dispensing Lab	4	-	
BIOH 108 (SCN 115N) Basic Anatomy	3	-	
PHAR 198 (PHA 106) Internship: Pharmacy Technology Retail	-	4	
PHAR 198 (PHA 107) Internship: Pharmacy Technology Alternate	-	4	
PHAR 120 (PHA 110) Medication Safety	-	3	
AMHS 144 (MED 195T) Medical Terminology	-	3	
Total		16	14

#### Practical Nursing-AAS

Mary Nielsen, Program Director

The Missoula College offers an Associate of Applied Science degree (A.A.S.) in Practical Nursing (PN). Applicants for the PN program must have a high school diploma or equivalency, have completed the AA prerequisite courses with a minimum grade of C, except in BIOH 201N/BIOH 211N & BIOH 211N/BIOH 212N (SCN 201N and 202N) which requires a B or higher grade, and possess a cumulative GPA of at least 2.75.

Admission to the program also requires completion of the application which can be obtained on the Missoula College UM Nursing webpage. The number of students accepted into the A.A.S. Program is limited to 20 each autumn and spring. Application deadlines are April 1 and November 1. A student may apply while enrolled in the final semester of the A.A.S. pre-nursing courses with acceptance to the program to be determined after the currently completed semester grades are finalized. All candidates who meet the admission requirements will be considered.

Students learn practical nursing skills through independent study, lectures, simulations, demonstrations, and practice in a nursing skills lab. Under instructor supervision, students also provide patient care in a variety of health care settings. The program is approved by the Montana State Board of Nursing (301 South Park, Helena, MT 59601).

Students must provide proof of having met the following requirements to the Nursing Program Administrative Associate, on or before the first day of class:

1. Two step Tuberculosis testing using the PPD (Purified Protein Derivative) or chest x-ray (positive results will require a physician's letter before a student can continue in clinical settings);
2. Hepatitis B vaccine, (HBV, a three injection series that may be obtained at Curry Health Center and other health care providers). The Hepatitis B vaccine must be started on or before acceptance into the program so the three injections series is completed by the time clinical begins;
3. Measles, mumps and rubella (MMR) immunization (for those born before 1956, it is not required to have an MMR, but a titer must be completed);
4. Influenza Vaccination;
5. Varicella (Chicken Pox) Vaccination;
6. BLS training for health care providers;
7. Proof of insurance;
8. Criminal Background Check

Many licensing bodies and employing institutions in health care have increasingly stringent requirements and background checks as conditions for licensing or employment. If a student has concerns about this, she/he should contact the licensing board for nursing at [dlibsdnur@mt.gov](mailto:dlibsdnur@mt.gov).

Practical Nursing program graduates are eligible to write the National Council Licensing Examination (NCLEX) for Practical Nurses. Completion of the A.A.S. Practical Nursing Program does not guarantee a student licensure. This is a decision of the Montana State

**Board of Nursing.**

After licensure, graduates typically find employment in hospitals, long term care facilities, physician offices and other health care agencies. They work under the supervision of a registered nurse, physician, dentist, osteopath or other health care provider as specified in the State of Montana Nurse Practice Act.

**A.A.S. Pre-nursing Required Courses**

A.A.S. pre-nursing courses must be completed prior to application to the program. Students are eligible to apply to the program during the semester of completing the A.A.S. pre-nursing course. An A.A.S. pre-nursing course may be attempted a maximum of two (2) times.

	PN Prerequisites	A/S
CHMY 121N (CHEM 151N) Introduction to General Chemistry		3
CHMY 122N (CHEM 152N) Introduction to General Chemistry Laboratory		1
M 121 (MAT 118) College Algebra (requires a placement test) or M 115 (MATH 117) Linear & Probability or M 151 (MATH 121) Pre-Calculus or M 171 (MATH 152) Calculus		3
NRSG 100 (NUR 101) Introduction to Nursing		1
PSYX 100S (PSY 100S) Introduction to Psychology		4
NUTR 221N (SCN 150) Nutrition (Suggested prerequisite is SCN 100N, Issues in Biology)		3
BIOH 201N-201N & BIOH 211N-212N (SCN 201N-202N) Anatomy and Physiology I & Lab and Anatomy and Physiology II & Lab (must be completed with a minimum of a B grade). (Suggested Pre-requisite is BIOH 108 (SCN 115) Basic Anatomy)		8
WRIT 101 (WTS 101) College Writing I (requires a placement test)		3
NRSG 197 Certified Nursing Assistant (if student is not a Certified Nursing Assistant)		4

Being certified as a CNA is a change to the A.A.S PN nursing program prerequisites starting autumn 2013. The CNA course is designed for students who do not already have a CNA. The course does not have to be completed at MC, but an active CNA Certificate must be included in the PN Nursing Program Application.

Students who have begun the PN program under an earlier catalog will have a slightly different course of study. Please see a program advisor for the correct schedule of courses.

**Scope and Sequence of the Practical Nursing Program:**

First Year Start in Spring	A	S
NRSG 130 (NUR 110) Fundamentals of Nursing and Lab	-	7
NRSG 135 (NUR 125) Nursing Pharmacology	-	3
NRSG 138 (NUR 146) Gerontology for Nursing	-	2
NRSG 140 (NUR 156) Core Concepts of Adult Nursing and Clinical	7	-
NRSG 142 (NUR 168) Core Concepts of Maternal Child Nursing and Clinical	3	-
NRSG 144 (NUR155) Core Concepts of Mental Health Nursing	-	2
NRSG 148 (NUR 173) Leadership Issues and Clinical	2	-
NRSG 147 (NUR 170) Practical Nursing NCLEX Review (elective)	2	-
Total		14 14
First Year Start in Autumn	A	S
NRSG 130 (NUR 110) Fundamentals of Nursing and Lab	7	-
NRSG 135 (NUR 125) Nursing Pharmacology	3	-
NRSG 138 (NUR 146) Gerontology	2	-
NRSG 144 (NUR 155) Core Concepts of Mental Health Nursing	2	-
NRSG 140 (NUR 156) Core Concepts of Adult Nursing and Clinical	-	7
NRSG 142 (NUR 168) Core Concepts of Maternal Child Nursing and Clinical	-	3
NRSG 148 (NUR 173) Leadership Issues and Clinical	-	2
NRSG 147 (NUR 170) Practical Nursing NCLEX Review (elective)	-	2
Total		14 14

**Registered Nursing-Associate of Science Degree****Mary Nielsen, Program Director**

The Associate of Science degree (A.S.N.) program articulates with the PN program and requires at least two additional semesters of full-time study. Applicants must have completed a PN program with the A.A. pre-nursing courses listed in the practical nursing course of study, and have a cumulative GPA of at least 2.75. A.A.S. PN students are eligible to apply to the A.S.N. program during the final semester of the A.A.S. PN program. Admission to the program also requires completion of the application which can be obtained on the Missoula College UM Nursing webpage. The number of students accepted into the A.S.N. program is limited to 18 each autumn and spring. Of the 18 students accepted, 10 are on campus, face-to-face program and 8 are part of the Goodman hybrid program.

Application deadlines are April 1 and November 1. All candidates who meet the admission requirements will be considered. Students learn Registered Nursing skills through independent study, lectures, simulations, demonstrations and advanced skills practice in the nursing lab. Under instructor supervision and preceptorship, students also provide patient care in a variety of acute care settings.

The A.S.N. degree program is approved by the State Board of Nursing (301 South Park, Helena, MT 59601). The program is accredited by the National League of Nursing Accrediting Commission (NLNAC) (3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326).

The requirements for all students entering the program are:

1. Completion of A.A.S. pre-nursing courses
2. Two step Tuberculosis testing using the PPD (Purified Protein Derivative) X 2 testing or chest x-ray (positive results will require a physician's letter before a student can continue in clinical settings)
3. Hepatitis B vaccine (HBV, a three injection series that may be obtained at Curry Health Center and other health care providers).  
The Hepatitis B vaccine must be started on or before acceptance into the program so the three injection series is completed by the time clinical begins;
4. Measles, mumps and rubella (MMR; for those born before 1956 it is not required to have an MMR, but a titer must be completed)
5. Influenza Vaccination;
6. Varicella (Chicken Pox) Vaccination;
7. CPR training for health care providers;
8. Proof of health insurance;
9. Criminal Background Check

Many licensing bodies and employing institutions in health care have increasingly stringent requirements and background checks as conditions for licensing or employment. If a student has concerns about this, she/he should contact the licensing board for nursing at [dlibsdnur@mt.gov](mailto:dlibsdnur@mt.gov).

Upon completion of the A.S.N. program, graduates earn an Associate of Science degree in Nursing (ASRN) and are eligible to write the NCLEX for Registered Nurses. Completion of the A.S.N. Program does not guarantee a student licensure. This is a decision of the Montana State Board of Nursing. Graduates are prepared for employment as registered nurses in acute care facilities, geriatric care centers, industrial setting, and in public and private health care agencies.

Prerequisite courses	A S
Have completed all PN Prerequisites	
BIOM 250N (BIOL 106N) Microbiology for Health Sciences (not mandatory but highly recommended due to clinical scheduling conflict)	3 -
BIOH 251N Microbiology for Health Sciences Lab (not mandatory, but highly recommended due to clinical scheduling conflict)	1 -
BIOH 211N-212N (SCN 202N) Human Anatomy and Physiology II (required if student has not taken 2 semesters of A&P (4 credits each with a lab))	4 -
SOCI 101S (SOC 110S) Introduction to Sociology (not mandatory but highly recommended due to clinical scheduling conflict)	- 3
<b>RN First Year Start in Autumn</b>	<b>A S</b>
NRSG 250 (NUR 240) Transition to Registered Nursing	3 -
NRSG 252 (NUR 268) Complex Care Maternal/Child Client and Clinical	3 -
NRSG 254 (NUR 255) Complex Care Mental Health Client and Clinical	2 -
NRSG 256 (NUR 230) Pathophysiology	3 -
NRSG 262 (NUR 256) Complex Care Needs - Adult Client and Clinical	- 4
NRSG 265 (NUR 270) Advanced Clinical Skills Lab	1 -
NRSG 266 (NUR 290) Managed Client Care and Clinical	- 4
Total	12 8
<b>RN First Year Start in Spring</b>	<b>A S</b>
NRSG 250 (NUR 240) Transition to Registered Nursing	- 2
NRSG 252 (NUR 268) Complex Care Maternal/Child Client and Clinical	- 3
NRSG 254 (NUR 255) Complex Care Mental Health Client and Clinical	- 2
NRSG 256 (NUR 230) Pathophysiology	- 3
NRSG 262 (NUR 256) Complex Care Needs - Adult Client and Clinical	4 -
NRSG 265 (NUR 270) Advanced Clinical Skills Lab	2 -
NRSG 266 (NUR 290) Managed Client Care and Clinical	4 -
Total	9 11

#### Radiologic Technology-A.A.S. Degree

Anne Delaney, Program Director

A Radiologic Technologist (Radiographer) uses critical thinking and independent judgment to obtain a diagnostic imaging study while maintaining quality patient care and minimizing radiation exposure. Technologists are employed in acute care settings, ambulatory care settings, physicians' offices, in education and in management or sales positions. With additional education and training, radiographers may be employed in radiation therapy, computed tomography, mammography, magnetic resonance imaging, diagnostic medical ultrasound, nuclear medicine, special vascular imaging and cardiac catheterization.

The Associate of Applied Science degree in Radiologic Technology requires students to successfully complete the Pre-Radiology prerequisite courses prior to applying to the program. Students admitted to the University of Montana may enroll in the Pre-Radiology prerequisite courses. Students must pass BIOH 201N-202N (SCN 201N-202N) with a minimum grade of 'B' and have a minimum cumulative GPA of 2.75 in all course work including prerequisite courses to apply to the Radiologic Technology program. Students

must prove competence with computer technology in one of the following three ways; Acceptable transfer credit for CAPP 120; Pass the challenge exam for CAPP 120; take and pass CAPP 120. A course may be attempted a maximum of two times. As some courses are offered autumn or spring semester only, it is important to obtain advising with the Program Director each semester prior to registration. Application to the program is required spring semester the year prior to the autumn semester program start. Students may apply while enrolled in the Pre-Radiology prerequisite courses with acceptance to the program to be determined after spring grades are finalized. Students who apply twice to the program and are not accepted are strongly encouraged to contact Career Services for counseling toward another degree. The program classes begin autumn semester each year with four semesters consisting of classroom and clinical education. A ten-week summer clinical rotation is required between the first and second years and consists of 40 hour per week of clinical and classroom instruction.

Once accepted in the program, all students are expected to complete BIOH 211N-212N (SCN 202N) and all courses with an AHXR rubric with a minimum grade of "B" to continue in the program.

The Radiologic Technology program is approved by the American Registry of Radiologic Technologists (ARRT) and accredited by the Northwest Association of Schools and Colleges. When all requirements for the associate degree are completed, the student will be eligible to take the national certification examination administered by the American Registry of Radiologic Technologists. Upon successful completion of this examination, the student becomes a Registered Radiologic Technologist, R.T. (R) ARRT.

Students entering the program are required to rotate to clinical sites outside the Missoula area on a periodic basis. These rotations will take place during any term or session beginning the second semester of the program. These sites may include, but are not limited to, Ronan, Hamilton, and Polson, Montana. Transportation and housing are the student's responsibility.

#### Pre-Radiology Prerequisite Courses

To be successfully completed prior to application to the program. An AA Prerequisite course may be attempted a maximum of two (2) times:

M 115 (MAT 117) Probability and Linear Math or M 121 (MAT 118) College Algebra	3
SCN 175N Integrated Physical Sciences	3
BIOH 201N-202N (SCN 201N) Anatomy and Physiology I & Lab	4
WRIT 121 (WTS 115) Introduction to Technical Writing or WRIT 101 College Writing	3
Total	13

#### Radiologic Technology Program Curriculum

<b>First Year</b>		<b>A S</b>
COMX 111A (COM 160A) Introduction to Public Speaking	-	3
PSYX 161S (PSY 110S) Organizational Psychology or PSYX 100S (PSY 100S) Introduction to Psychology	3	-
AHXR 100 (RAD 110) Introduction to Diagnostic Imaging	3	-
AHXR 121 (RAD 121) Radiographic Imaging I	-	4
AHXR 140 (RAD 111) Radiological Methods	3	-
AHXR 195 (RAD 151) Radiographic Clinical: I	-	8
AHXR 240 (RAD 112) Radiological Methods II	-	3
BIOH 211N-212N (SCN 202N) Anatomy and Physiology II & Lab	4	-
Total	13	18
<b>Summer Session</b>		<b>A S</b>
AHXR 195 (RAD 161) Radiographic Clinical: II	12	
Total	12	
<b>Second Year</b>		<b>A S</b>
AHMS 270E (MED 280E) Medical Law and Ethics	-	3
AHXR 221 (RAD 222) Radiographic Imaging II	3	-
AHXR 225 (RAD 241) Radiobiology/Radiation Protection	2	-
AHXR 270 (RAD 245) Radiographic Registry Review	-	2
AHXR 295 (RAD 251) Radiographic Clinical: III	8	-
AHXR 295 (RAD 261) Radiographic Clinical: IV	-	9
Total	13	14

#### Respiratory Care-A.A.S. Degree

Nicholas Arthur, Program Director

Respiratory Care is an allied health specialty. It is an important part of modern medicine and health care. Respiratory Care encompasses the care of patients with respiratory problems in the hospital, clinic, and home.

Respiratory therapists, as members of a team of health care professionals, work to evaluate, treat, and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders in a wide variety of clinical settings. Respiratory therapists must behave in a manner consistent with the standards and ethics of all health care professionals. In addition to performing respiratory care procedures, respiratory therapists are involved in clinical decision-making (such as patient evaluation, treatment selection, and assessment of

treatment efficacy) and patient education. The scope of practice for respiratory therapist includes, but is not limited to:

- . acquiring and evaluating clinical data;
- . assessing the cardiopulmonary status of patients;
- . performing and assisting in the performance of prescribed diagnostic studies, such as drawing blood samples, performing blood gas analysis, pulmonary function testing, and applying adequate recording electrodes using polysomnographic techniques;
- . utilizing data to assess the appropriateness of prescribed respiratory care;
- . establishing therapeutic goals for patients with cardiopulmonary disease;
- . participating in the development and modification of respiratory care plans;
- . case management of patients with cardiopulmonary and related diseases;
- . initiating ordered respiratory care, evaluating and monitoring patients' responses to such care, modifying the prescribed respiratory therapy and cardiopulmonary procedures, and life support endeavors to achieve desired therapeutic objectives;
- . initiating and conducting prescribed pulmonary rehabilitation;
- . providing patient, family, and community education;
- . promoting cardiopulmonary wellness, disease prevention, and disease management;
- . participating in life support activities as required; and
- . promoting evidence-based medicine, research, and clinical practice guidelines.

Starting salaries are excellent with premiums paid for evening, night, and weekend shifts. Jobs are plentiful throughout the United States. Graduates are eligible to take the credentialing examinations administered by the National Board for Respiratory Care (NBRC) which lead to the Registered Respiratory Therapist (RRT) credential. Licensure requirements in the state of Montana also are met by successful completion of the NBRC Entry Level (CRT) examination.

The goal of the program is, "To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) domains of respiratory care practice as performed by registered respiratory therapists (RRTs)" CoARC standard 3.01.

The program is 4 ½ semesters in length which includes the AA prerequisite courses and a summer session. The Respiratory Care Program at The University of Montana Missoula College, is accredited by the Commission on Accreditation for Respiratory Care ([www.coarc.com](http://www.coarc.com)), 1248 Harwood Road, Bedford, Texas 76021-4244. Graduates receive the degree of Associate of Applied Science in Respiratory Care.

Students accepted to the program are required to rotate to clinical sites outside the Missoula area on a periodic basis. These rotations take place during the spring semester, summer session and autumn semester of the second year. These sites may include, but are not limited to: Kalispell, Ronan, Polson, Butte, Billings, Bozeman, Hamilton, Helena, Coeur d'Alene and Lewiston, Idaho and Spokane, Washington. Transportation and housing are the student's responsibility.

#### Program Admission Requirements

1. Completion of all general health pre-requisite courses with a minimum 2.75 GPA in the core courses.
2. Minimum grade of B minus in BIOH 201N (SCN 201N) and a minimum grade of B minus in BIOH 202N (SCN 202N).
3. Applicants are required to "job shadow" a Respiratory Care practitioner in the workplace. Consult the Respiratory Care Program Director for details.
4. Submit completed application packet to the HP Administrative Assistant by April 1 for autumn entry into the program.

**Note:** If a student has not completed the general health core courses until the end of spring session, he/she should still apply in spring semester and request a provisional acceptance contingent upon successful completion of general health core courses during the summer session.

#### AA Prerequisite Courses

To be successfully completed prior to application to the program. An AA prerequisite course may be attempted a maximum of two (2) times.

M 115 (MAT 117) Probability and Linear Mathematics Probability and Linear Math or M 121 (MAT 118)College Algebra	3
PSYX 161S (PSY 110S)Organizational Psychology	3
BIOH 201N-201N & BIOH 211N-212N (SCN 201N-202N) Anatomy and Physiology I & Lab and Anatomy and Physiology II & Lab	8
WRIT 121 (WTS 115) Introduction to Technical Writing or WRIT 101 (WTS 101) College Writing I	3
SCN 175N Integrated Physical Science 1	3
Total	20

#### Respiratory Care Program Curriculum

	Autumn Entry	A	S
AHRC 101 (RES 101T) Communication and Management	1	-	
AHRC 115 (RES 115T) Blood Gas Analysis (intersession)	-	2	
AHRC 129 (RES 129T) Patient Care and Assessment	4	-	

AHRC 130 (RES 130T) Respiratory Care Lab 1B	1	-
AHRC 131 (RES 131T) Respiratory Care Fundamentals	5	-
AHRC 133 (RES 133T) Respiratory Care Pharmacology	-	3
AHRC 150 (RES 150T) Respiratory Care Laboratory I	1	-
AHRC 231 (RES 231T) Respiratory Critical Care	-	4
AHRC 232 (RES 232T) Respiratory Pathology and Disease	-	3
AHRC 235 (RES 235T) Cardiopulmonary Anatomy and Physiology 3	-	3
AHRC 250 (RES 250T) Respiratory Care Laboratory II	-	2
AHRC 255 (RES 255T) Clinical Experience I	-	5
Total	15	19
<b>Summer Session</b>		
AHRC 260 (RES 260T) Respiratory Care Laboratory III	1	
AHRC 265 (RES 265T) Clinical Experience II	5	
Total	6	
<b>Autumn Semester</b>		
AHRC 243 (RES 241T) Prenatal and Pediatric Respiratory Care	3	<b>A S</b>
AHRC 252 (RES 252T) Respiratory Care Review	2	
AHRC 270 (RES 270T) Respiratory Care Laboratory IV	1	
AHRC 275 (RES 275T) Clinical Experience III	6	
Total	12	

### Surgical Technology-A.A.S. Degree

Debbie Fillmore, Program Director

Students in the program are educated to be Surgical Technologists who work as part of the surgical team to ensure the operative procedure is conducted under optimal conditions. The ST is responsible for three phases (preoperative, intraoperative, and postoperative) of patient care with minimal direction. All surgical team members must adhere to the principles of asepsis and the practice of sterile technique. The ST normally functions in a sterile capacity by passing instruments, equipment and supplies to the surgeon during the surgical procedure but may also perform many non-sterile duties throughout the workday.

Students admitted to The University of Montana enter as Associate of Arts (AA) General Studies majors with an emphasis in the program of their choice. Students must select the specific prerequisite courses required for their chosen area of study after meeting with the program advisor. Students must apply to the program by October 1. Students may apply while enrolled in the A.A. prerequisite courses with acceptance to the program to be determined after the Autumn semester grades are finalized. The course, BIOH 201N/202N (SCN 201N), Anatomy and Physiology I, and lab, must be passed with a grade of B (3.0). All other prerequisite courses must be passed with a grade of C (2.0). The program-specific courses begin spring semester.

Once accepted to the program, a student must complete each Surgical Technology-specific course (those courses with an AHST with a minimum grade of 'C' (80%) in order to continue in the ST program. All other required courses must also be passed with a grade of "C".

Course grading scales may vary. If a student does not pass the required courses, he/she will not be able to continue in the program and will need to apply for readmission. If a student is re-admitted, he/she will be required to complete skills labs, AHST 115 (SUR 102T) and AHST 215 (SUR 202T), to ensure sterile technique skills are acceptable for patient care. A student may take any required course a maximum of two (2) times. A student may apply to the program a maximum of two (2) times.

A student will become a member of the Association of Surgical Technologists ([www.ast.org](http://www.ast.org)) during the first year in the program. A student anticipating program completion will write the National Certification Exam prior to graduation. A student who successfully completes the ST program is awarded an A.A.S. degree in Surgical Technology. The credential of Certified Surgical Technologist (CST) will be awarded to a student upon passing the National Certification Exam and graduation from the ST program. The credential of Certified is awarded by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Students are required to rotate sites during the clinical portion of their education. During the last semester of the program, internships may be outside the Missoula area. Transportation and housing are the student's responsibility. Prior to entering a healthcare facility for clinical experiences, a student will be required to submit a background check. Many healthcare facilities have increasingly stringent requirements. A student could be refused entry into a clinical facility based on information disclosed in a background check. If this is a concern for you, please consult the Program Director. If a student is denied agency access based on the Background Check, there will be no placement at an alternate site, and the subsequent inability of the student to complete the clinical education will result in inability to continue in the Surgical Technology program.

The University of Montana Missoula College Surgical Technology Program also has Outreach campuses in Butte and Billings. The Butte site is the Montana Tech of The University of Montana Missoula College campus in collaboration with St James Healthcare. The Billings site is the Montana State University-Billings Missoula College campus in collaboration with St Vincent Healthcare and Billings Clinic. Students at those sites take the equivalent prerequisite courses on their respective campuses. The Surgical Technology-specific courses begin spring semester. Students must apply to the ST program by October 1. Students may apply while enrolled in the prerequisite courses with acceptance to the program to be determined after fall grades are finalized. The classroom portion of the ST program curriculum is delivered in web-based format using the Moodle course delivery system from the Missoula campus. Lab and



clinical courses are conducted on each Outreach campus. Outreach students are required to travel to Missoula to write the National Certification Exam and to participate in Commencement exercises. Prospective students may contact the Health Professions' Office at 406-243-7868 for more information regarding the ST Program on the Butte and Billings campuses. Please refer to the specific course catalogs on the Butte and Billings campuses for prerequisite requirements.

The ST program is accredited by the Committee on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park St., Clearwater, FL 33756; phone 727-210-2350, www.caahep.org.

#### AA Prerequisite Courses

A student may apply to the program either following completion of the prerequisite courses or during the semester completing the courses. Any required course may be attempted a maximum of two (2) times.

WRIT 121 (WTS 115) Introduction to Technical Writing or WRIT 101 (WTS 101) College Writing I	3
BIOH 201N/202N (SCN 201N) Anatomy and Physiology & Lab	4
CAPP 120 (CRT 100) Introduction to Computers	3
M 105 Contemporary Math	3
AHMS 144 (MED 154T) Medical Terminology	3
PSYX 100S (PSY 100S) Introduction to Psychology	4
Total	20

#### Surgical Technology Program Curriculum:

First Year	A	S
BIOM 250N (BIOL 106N) Microbiology for Health Sciences	-	3
BIOH 211N-212N (SCN 202N) Anatomy and Physiology II & Lab	-	4
AHST 115 (SUR 102T) Surgical Lab I	-	2
AHST 101 (SUR 101T) Introduction to Surgical Technology	-	3
AHST 154 (SUR 154) Surgical Pharmacology	-	3
Total	-	15
Second Year	A	S
AHST 200 (SUR 200) Operating Room Techniques	5	-
AHST 201 (SUR 201) Surgical Procedures I	4	-
AHST 215 (SUR 202T) Surgical Lab II	2	-
AHST 250 (SUR 203T) Surgical Clinical I	4	-
AHMS 270E (MED 280E) Medical Law and Ethics	3	-
AHST 202 (SUR 202T) Surgical Procedures II	-	5
AHST 251 (SUR 206T) Surgical Clinical II	-	5
AHST 298 (SUR 290T) Surgical Internship	-	5
Total	18	15

#### Courses

R- before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

##### Allied Health Medical Support (AHMS) - Course Descriptions

144, 191, 216, 220, 270E

##### Surgical Technology (AHST) - Course Descriptions

101, 115, 154, 200, 201, 202, 215, 250, 251, 298

##### Radiologic Technology (AHXR) - Course Descriptions

100, 121, 140, 191, 192, 195, 221, 225, 240, 270, 291, 295, 298

##### Nursing (NRSG) - Course Descriptions

100, 110, 130, 131, 135, 138, 139, 140, 141, 142, 143, 144, 147, 148, 149, 191, 192, 250, 252, 253, 254, 255, 256, 262, 263, 265, 266, 267, 291, 292

##### Pharmacy (PHAR) - Course Descriptions

100, 101, 102, 104, 120, 191, 192, 198

##### Allied Health Respiratory Care (AHRC) - Course Descriptions

101, 115, 129, 130, 131, 133, 150, 191, 231, 232, 235, 242, 243, 250, 252, 255, 260, 265, 270, 275, 291

## Department of Industrial Technology

Rodney Front, Interim Chair

The mission of the Department of Industrial Technology is to provide the regional workforce with credentialed, skilled, and competent entry-level technicians, and to be responsive to emerging workforce needs. The Department encourages the development of teamwork and interpersonal communication skills required in the workplace. It also stresses the importance of a strong work ethic and the value of continuing education and lifelong learning. The instruction for the Department of Industrial Technology Certificate of Applied Science and Associate of Applied Science (A.A.S.) degree programs are primarily delivered at the West Campus at 3639 South Avenue West. Some instruction is delivered at the East Campus or Mountain Campus.

All students admitted to Industrial Technology programs are required to submit writing and math placement scores immediately upon admission to the Missoula College or make arrangements to take these assessments as soon as possible. Thereafter, students needing to take a math and/or writing assessment should contact the Academic Support Center at 406-243-7826 to schedule an appointment to take the placement assessments as soon as possible. Students who live outside of the Western Montana area may take a math and writing assessment at their local community college. Contact the Academic Support Center at 406-243-7826.

### Special Certificate and Degree Requirements

The general education requirements are included in the following courses of study. Refer to the Academic Policies and Procedures section of this catalog for the specific requirements.

### Course Fees, Tools, and Supplies

Courses in all programs in the Department of Industrial Technology include additional course fees and require special tools and supplies for which students must pay. To obtain a complete listing of these additional items and costs, contact the program directors.

### Building Maintenance-Certificate of Applied Science

The mission of the Building Maintenance Program is to provide the regional workforce with credentialed, skilled and competent building maintenance professionals, and to be responsive to emerging workforce needs.

Students in the Building Maintenance program are trained as building maintenance professionals who maintain commercial buildings. Subject matter in the program includes plumbing, electricity, carpentry, and heating/air conditioning. Students learn physical and electrical theories that enable them to understand building systems. In addition, they study building cleaning, landscape maintenance, pool care, computers, and boiler operation. Water treatment is discussed in both the pool and boiler courses. The program introduces current environmental and energy problems that can be reduced through efficient building operation. It also encourages resource development, teamwork and interpersonal skills required on the job.

Students are awarded a Certificate of Applied Science upon successfully completing the program. Contact John Walker, Program Director, at 406-243-7645 or [john.walker@umontana.edu](mailto:john.walker@umontana.edu) for more information.

### Autumn and Spring Entry:

Course	A	S
BME 122T Electricity	-	5
BME 123T Carpentry	6	-
BME 127T Low Pressure Boilers	-	3
BME 128T Maintenance	6	-
BME 130T Heating and Air Conditioning	-	6
CAPP 120 (CRT 100) Introduction to Computers	3	-
M 111 (MAT 110T) Technical Mathematics	3	-
PSYX 163 (PSY 105T) Work Attitudes	-	1
WRIT 121 (WTS 115) Introduction to Technical Writing or WRIT 095 (WTS 100) Developmental Writing	-	3
Total		18 18

### Carpentry - Certificate of Applied Science and A.A.S. Degree

The mission of the Carpentry Program is to provide the regional workforce with credentialed, skilled and competent carpenters and to be responsive to emerging workforce needs.

The Carpentry program provides students the opportunity to learn carpentry skills in a competency-based learning environment. Students work hand-in-hand with professional carpenters both on campus and at construction sites.

Students use hand and power tools with blueprints to build foundation forms, frame buildings, side and roof buildings, and apply

roofing materials. They install windows, doors, stairs, attic vents, insulation, vapor barriers, and drywall. Students learn methods for installing trim, locksets, suspended ceilings, countertops, cabinets, and flooring. They also learn to operate construction equipment.

In addition to general education courses, students in the program learn the various steps of becoming a carpenter, including safe practices. Students construct real-world projects and can earn a Certificate of Applied Science or an Associate of Applied Science degree from The University of Montana. The program often has a waiting list. Prospective students are encouraged to apply one year prior to anticipated school attendance. Contact Dennis Daneke, Program Director, at 406-243-7692 or Dennis.Daneke@umontana.edu for more information.

Autumn Entry:

First Year	A	S
CSTN 171 Site Preparation, Foundations, and Concrete Installation	3	
CSTN 201 Advanced Concrete Working	-	3
CSTN 120 (CAR 120T) Carpentry Basics & Rough in Framing	5	-
CSTN 122 (CAR 121T) Beginning Carpentry Lab	5	-
CSTN 142 (CAR 140T) Interior and Exterior Finish Carpentry	-	4
CSTN 143 (CAR 141T) Intermediate Carpentry Lab	-	4
BMGT 242T (BUS 242T) Front Line Supervision	-	3
CAPP 120 (CRT 100) Introduction to Computers	3	-
M 111 (MAT 110T) Technical Mathematics	-	3
WRIT 101 (WTS 101) College Writing I	-	3
Total	16	20

Successful completion of the courses listed above results in the award of a Certificate of Applied Science in Carpentry.

Second Year	A	S
DDSN 114 (CADX 110) Intro to Computing Aided Design	3	-
CSTN 205 (CAR 220T) Advanced Carpentry	-	6
CSTN 206 (CAR 221T) Advanced Carpentry Lab	-	2
CSTN 261 (CAR 230T) Building Management	4	-
CSTN 276 (CAR 236T) Building for Solar Energy	3	-
CSTN 279 (CAR 240T) Alternative Construction Materials	4	-
CSTN 278 (CAR 241T) Applied Building Practices	-	6
CSTN 299 (CAR 231T) Capstone: Carpentry	2	-
CSTN 282 Green Building I	4	-
WLDG 103 (WEL 119T) Welding Fund Construction Trades	-	2
CSTN 283 Green Building II	-	3
Total	17	19

Successful completion of the first and second year courses listed above results in the awarding of an Associate of Applied Science Degree in Carpentry.

#### Diesel Technology- A.A.S. Degree

The mission of the Diesel Technology Program is to provide the regional workforce with credentialed, skilled and competent diesel technicians and to be responsive to emerging workforce needs.

Students in the Diesel Technology program train to be diesel mechanics that repair diesel-powered trucks and heavy equipment. Students study hydraulics, electrical systems, fuel systems, power trains, air conditioning, brakes and suspension, engine theory, and engine diagnosis, beginning with basic principles and proceeding to an advanced level of system technology. Along with these core courses, students take classes in welding, machining, computers, communications, and math. Credit for independent study is available to those desiring additional instruction in diesel mechanics. Students who complete the program successfully are awarded the Associate of Applied Science degree.

The program often has a waiting list. Prospective students are encouraged to apply one year prior to anticipated school attendance. Contact the Jim Headlee, Program Director, at 406-243-7648 or Jim.Headlee@umontana.edu for more information.

Autumn Entry:

First Year	A	S
DST 120 (DET 120T) Electrical Systems	-	8
DST 128 (DET 128T) Engine Service I	4	-
DST 135 (DET 135T) Power Trains	7	-
CAPP 120 (CRT 100) Introduction to Computers	-	3
M 111 (MAT 110T) Technical Mathematics	-	3
MCH 115 (MPR 115T) Related Metals Processes III	-	3
PSYX 161S (PSY 110S) Fundamentals of Organizational Psychology	3	-
WLDG 101 (WEL 111T) Welding Fund Auto Tech/Diesel	2	-

Total	16 17
	<b>A S</b>
DST 221 (DET 221T) Brakes, Suspension, and Undercarriage	6 -
DST 225 (DET 225T) Hydraulics	6 -
DST 229 (DET 229T) Engine Service II	- 7
DET 230T Air Conditioning	- 3
DST 231 (DET 231T) Fuel Systems	- 5
DST 235 (DET 235T) Advanced Power Trains	- 2
TRK 106T Commercial Driver's License (CDL) Training (offered intermittently)	- (1)
WLDG 139 (WEL 139T) Welding Maintenance and Repair - Diesel	1 -
WRIT 121 (WTS 115) Introduction to Technical Writing	3 -
Total	16 17-18

#### Power Generation

(Not available in 2011-2012)

#### Heavy Equipment Operation-Certificate of Applied Science

The mission of the Heavy Equipment Operation Program is to provide the regional workforce with credentialed, skilled and competent heavy equipment operators and to be responsive to emerging workforce needs. The Heavy Equipment Operation Program provides students a basic understanding of fundamental machine functions and is designed to develop apprentice-level skills in the operation of heavy equipment.

Students are trained to safely and properly operate and maintain a variety of heavy equipment, including crawler-tractors, graders, scrapers, front-end loaders, excavators, backhoes, and dump trucks. Students develop an understanding of basic surveying techniques, receive extensive training in safety regulations and procedures, and learn how to handle controls precisely and judge distances accurately. The program also promotes an awareness of potential job site difficulties and allows students to gain knowledge of the work ethic expected by employers in the construction industry.

A Certificate of Applied Science is awarded after the program is successfully completed.

The program often has a waiting list for admittance. Prospective students are encouraged to apply one year prior to anticipated school attendance. Contact Rod Frost, Program Director, at 406-243-7843 or [Rodney.Frost@umontana.edu](mailto:Rodney.Frost@umontana.edu) for more information.

	Autumn Entry	A	S
SRVY 108 (HEO 140T) Construction Surveying		2	-
HEO 146T Safety and Basic Controls		5	-
HEO 148T Operational Skill Building		5	-
HEO 150T Job Simulation		-	6
HEO 151T Service and Maintenance		2	-
HEO 153T Construction Theory and Specialized Equipment		-	5
CAPP 120 (CRT 100) Introduction to Computers		3	-
M 111 (MAT 110T) Technical Mathematics		3	-
MCH 112 (MPR 112T) Related Metals Processes I		-	1
PSYX 163 (PSY 105T) Work Attitudes		-	1
TRK 106T Commercial Truck Driving License Training (offered intermittently)		(1)	-
WRIT 121 (WTS 115) Introduction to Technical Writing or WRIT 095 (WTS 100) developmental Writing		-	3
Total		20-21	16

#### Recreational Power Equipment-Certificate of Applied Science

The mission of the Recreational Power Equipment Program is to provide the regional workforce with credentialed, skilled, and competent power equipment technicians and to be responsive to emerging workforce needs.

The Recreational Power Equipment Program prepares students to repair and maintain a wide variety of two-cycle and four-cycle engines and related equipment. Students work on motorcycles, ATVs, snowmobiles, outboard motors, and personal watercraft. Units of instruction include mechanical, fuel, and electrical systems. The program also encourages the development of teamwork and interpersonal skills required on the job.

For more detailed information including program costs, tool requirements, student class schedules, and course syllabi, visit: <http://www.cte.umt.edu/industrialtech/rpe/>

Contact Mike Steffenson, Program Director, at 406-243-7693 or [Michael.Steffenson@umontana.edu](mailto:Michael.Steffenson@umontana.edu) for more information.

	Autumn Entry	A	S
SET 160 Basic Electricity		3	-

SET 176 Motorcycle/ATV Engines, Suspension, and Chassis	3 -
SET 177 Motorcycle/ATV Electrical and Fuel Systems	4 -
SET 178 Marine Electrical and Fuel Systems	- 5
SET 179 Marine Powerheads and Lower Units	- 6
SET 180 Snowmobile Maintenance and Repair I	2 -
SET 181 Snowmobile Maintenance and Repair II	- 2
SET 182 Computer Applications for Motor Sports	- 1
CAPP 120 (CRT 100) Introduction to Computers	3 -
M 111 Technical Mathematics	- 3
MCH 115 (MPR 115T) Related Metals Processes III	3 -
PSYX 163 (PSY 105T) Work Attitudes	- 1
WRIT 121 (WTS 115) Technical Writing or WRIT 095 (WTS 100) Developmental Writing	- 3
Total	18 21

#### Welding Technology - Certificate of Applied Science and A.A.S. Degree

The mission of the Welding Technology Program is to provide the regional workforce with credentialed, skilled, and competent welders and to be responsive to emerging workforce needs. The Welding Technology Program prepares students to operate and troubleshoot a variety of welding power sources and related equipment. The program prepares students to solve problems found within the welding industry using computational skills and other problem-solving techniques essential to welding and steel fabrication. It also encourages the development of teamwork and interpersonal skills required on the job.

Welding students develop skills in six different welding processes—oxyacetylene (OAW), shielded metal arc (SMAW), gas metal arc (GMAW), flux core arc, (FCAW), submerged arc (SAW), and gas tungsten arc welding (GTAW). Beyond the development of welding skills and understanding of the process, they also study other skills, such as blueprint reading and layout, metallurgy, and gain an understanding of how heating and cooling cycles affect the properties of metals. Students also study the design of jigs and fixtures and how to incorporate these into an automated welding system.

The Welding Technology Program also has courses that provide for a solid background in the metals industry. Such courses are Computer Aided Design and Drafting (CADD), OSHA Rules and Compliance, and Related Metals Processes. Fabrication basics and Metal Design and Construction utilize all of the gained knowledge with an instructor approved/student designed project.

Welding technology students have the opportunity to become certified to American Welding Society Standards and receive documentation stating qualifications.

Students are awarded the Certificate of Applied Science upon successful completion of the first year of the Welding Technology program. Students are awarded the Associate of Applied Science degree upon successfully completing the two-year program.

The program often has a waiting list. Prospective students are encouraged to apply one year prior to their anticipated school attendance. For more detailed information including program costs, tool lists, class schedules, and course syllabi, visit our web site at: <http://www.mc.umt.edu/industrialtech/welding/>. Contact Mark Raymond, Program Director, at 406-243-7647 or [Mark.Raymond@umontana.edu](mailto:Mark.Raymond@umontana.edu)

#### Autumn Entry:

First Year	A	S
WLDG 117 (WEL 182T) Blueprint Reading & Welding Symbols	-	3
WLDG 145 (WEL 189T) Fabrication Basics	-	4
WLDG 150 (WEL 194T) Welding Layout Techniques	2	
WLDG 180 (WEL 181T) Shielded Metal Arc Welding	4	-
WLDG 184 (WEL 184T) OSHA Rules & Regulations Welding	-	1
WLDG 187 (WEL 185T) Flux Core Arc Welding	-	4
WLDG 191 (WEL 195T) Special Topics	-	(1)
WLDG 205 (WEL 180T) Applied Metallurgy	4	-
CAPP 120 (CRT 100) Introduction to Computers	3	-
M 111 (MAT 110T) Technical Mathematics	3	-
MCH 114 (MPR 114T) Related Metals Processes II	3	-
PSYX 163 (PSY 105T) Work Attitudes	-	1
WRIT 121 (WTS 115) Introduction to Technical Writing	-	3
Total	19	15-16

Successful completion of the courses listed above results in the award of a Certificate of Applied Science in Welding.

Second Year	A	S
WLDG 210 (WEL 282T) Pipe Welding-Integrated Lab	4	-
WLDG 215 (WEL 280T) GTAW (integrated lab)	4	-
WLDG 245 (WEL 281T) Metal Fab Design/Construction	-	4
WLDG 275 (WEL 283T) Gas Metal Arc Welding	-	4
WLDG 280 (WEL 286T) Welding Certification	-	2

WLDG 285 (WEL 285T) Automation in Welding	- 3
BMGT 242T (BUS 242T) Front Line Supervision	- 3
CADX 110 (CRT 182T) Intro to Computer Aided Design	3 -
MCH 214 (MPR 214T) Advanced Related Metals Processes	3 -
Total	14 16

## Courses

**R-** before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Building Maintenance (BME) - Course Descriptions

122T, 123T, 127T, 128T, 130T

### Carpentry (CSTN) - Course Descriptions

102, 122, 142, 143, 191, 192, 205, 206, 261, 276, 277, 278, 291, 299

### Diesel Service Tech (DST) - Course Descriptions

120, 128, 135, 192, 221, 225, 229, 231, 235, 270, 271, 272

### Heavy Equipment Operation (HEO) - Course Descriptions

140T, 142T, 146T, 148T, 150T, 151T, 153T

### Metals & Machining Technology (MCH) - Course Descriptions

112, 114, 115, 191, 196, 214, 292

### Small Engine Technology (SET) (Recreational Power Equipment) - Course Descriptions

160T, 176T, 177T, 178T, 179T, 180T, 181T, 182T, 195T, 196T

### Welding Technology (WLDG) - Course Descriptions

101, 103, 117, 139, 145, 150, 180, 184, 187, 191, 192, 205, 210, 215, 245, 275, 280, 285, 291

## School of Extended and Life Long Learning

Roger Maclean, Dean

### Mission

The School of Extended and Lifelong Learning (SELL) is the outreach arm of The University of Montana, and its mission reflects The University of Montana's commitment to provide high quality, innovative outreach programs that serve the lifelong learning needs of the citizens of Montana and beyond. SELL's primary goal is to provide access to UM's vast array of educational opportunities.

The School of Extended and Lifelong Learning partners with academic units and external agencies to develop programs; write grant and contract proposals, for external funding; and offer focused training programs that contribute to the economic development of Montana. Programs are delivered using a variety of delivery formats, and encompass UOnline, Summer Semester, Wintersession, Off-campus programs and Professional Development Services. SELL connects the resources of The University of Montana to a diverse audience by facilitating access to educational opportunities through online learning, summer and winter programs, off-campus courses and degrees and professional development programs.

Continuing Education is located in the James E. Todd building, east of the University Center, and provides access to state-of-the-art technology in every room. In addition, SELL provides conference and event planning, including equipment rental, technical support and logistical assistance. For more information, visit <http://www.umt.edu/ce/>.

### Extended Learning Services (XLS)

UM Online courses are available to students both on- and off- campus at times and places convenient to the learner. Degree programs, General Education courses and many other online courses are offered each semester and Wintersession. For more information and course schedules, visit <http://uonline.umt.edu/>.

Summer Semester offers several options for traditional and non-traditional students throughout the summer months. Graduate and undergraduate courses are offered in more than 30 disciplines, along with workshops and seminars. For more information about

Summer Semester, visit <http://umt.edu/xls/summer/default.aspx>.

Wintersession offers UM students an opportunity to earn up to 6 credits during the 3-week session in January. Credits earned during Wintersession count toward full-time Spring Semester status. For example, students registered for 3 credits during Wintersession and 9 credits during the Spring Semester are considered full-time students. Students registered for full-time during the Spring Semester do not pay additional tuition for courses scheduled during Wintersession. Financial Aid applies to credits earned during Spring, including Wintersession. For more information, visit <http://umt.edu/xls/wintersession/default.aspx>.

Community Engagement offers academic credit and non-credit courses, programs, workshops, seminars and conferences. Course delivery includes face-to-face, online, blended learning, travel and experiential learning opportunities. For more information about taking or sponsoring professional development courses, visit <http://umt.edu/xls/pds/default.aspx>.

Off-Campus Courses and Programs offer learners with additional opportunities to earn academic credit and complete programs in many disciplines in locations other than Missoula. Designed to meet the diverse needs of students, programs are offered at locations throughout Montana and beyond using traditional classroom methods, videoconferencing and Internet instruction. For more information, visit <http://umt.edu/xls/offcampus/default.aspx>.

#### Community and Professional Services

The mission of the Community and Professional Services Department is to provide comprehensive non-credit training opportunities to a broad spectrum of professional and community groups. The unit is responsible for the development and implementation of programs that include professional development, technical support, training, creative solutions, enhanced solutions and communications. These programs focus on health and the environment by offering custom tailored workshops, conferences, reports, strategic planning, regional training and community outreach programs. CPS works to empower community organizations by providing services that enable them to increase their levels of skill and efficiency. For more information, visit <http://www.umt.edu/ce/cps/testdefault.asp>.

#### Osher Lifelong Learning Institute at The University of Montana

The mission of the Osher Lifelong Learning Institute at The University of Montana (MOLLI) is to promote lifelong learning and personal growth for adults over fifty. The institute offers an accessible and innovative learning environment for older adults from all backgrounds and levels of education. Faculty members include emeritus and current UM faculty, as well as professionals from the community. Program offerings include lectures, ongoing discussions, short courses, and interest groups covering topics from the humanities, sciences and the arts, as well as community and regional issues. For more information, visit <http://www.umt.edu/ce/plus50>.

## Department of Accounting and Finance

Bruce Costa, Chair

The Department of Accounting and Finance prepares ethically aware decision-makers with effective analytical and qualitative business knowledge and skills to become professionals in their respective fields in the region and beyond. We commit to high quality teaching and applying scholarship to professional practice, pedagogy, and theory to enhance the professional accounting and finance fields. The department offers the Master of Accountancy degree and two undergraduate majors within the Bachelor of Science in Business Administration degree: accounting and finance. The department also offers a Certificate in Accounting Information Systems.

#### Accounting Major

The undergraduate accounting program is committed to preparing students to apply accounting and business knowledge in organizations. Students develop competence in a broad range of accounting practices. The curriculum strives to foster critical thinking and problem-solving skills. Students are prepared to enter professional positions in accounting with business, nonprofit, or government organizations. Accounting programs in the School of Business Administration hold separate AACSB International accreditation.

See the School of Business Administration section of the catalog for additional credit restrictions and residency requirements.

#### Basic Requirements for the Accounting Major

Required	Credits
ACTG 203 Accounting Lab (may be taken with lower core)	1
ACTG 305 (ACCT 311) Corporate Reporting I	3
ACTG 306 (ACCT 312) Corporate Reporting II	3
ACTG 321 (ACCT 310) Accounting Information Systems I	3
ACTG 401 (ACCT 431) Principles of Federal Taxation-Individuals	3
ACTG 410 (ACCT 421) Cost Management Accounting I	3
ACTG 411 (ACCT 441) Auditing I	3
ACTG 425 State and Local Government Accounting I	2
Plus three (3) credits from the following (NOTE: no more than 3 credits from this list can apply to the 120 credits for the degree):	
ACTG 307 (ACCT 313) Corporate Reporting III*	2
ACTG 420 (ACCT 422) Cost Management Accounting II	3

ACTG 426 Accounting for Nonprofit Organizations*	1
ACTG 432 (ACCT 432) Income Tax Practicum	1
ACTG 498 (ACCT 498) Accounting Internship	1-3

**Note: Students should select, in consultation with their faculty advisor, the accounting courses from the above list that best fit their individual career goals. Some courses (\*) are required as prerequisites to M-Acct. coursework, are recommended for CPA exam coverage, or have grade requirements in the prerequisite course (see the course descriptions). Many of these courses may be taught once a year—see advisor for the schedule each academic year.**

#### Certification

Students are required to obtain additional credit hours in accounting and other courses to become licensed as a Certified Public Accountant (CPA) in Montana. The State of Montana (and most other states) requires 150 credit hours to become a licensed CPA, with certain parameters applied to the types of courses required. Students can continue their education in the Master of Accountancy program to meet this credit requirement and/or pursue a variety of other professional certifications.

#### Master of Accountancy

The Master of Accountancy (M-Acct.) program provides breadth and depth in accounting, taxation, and business to develop a high level understanding, skill and leadership capability for advancement in the accounting profession and other related business careers. This program has achieved national recognition due to the outstanding performance of graduates on the uniform Certified Public Accountant (CPA) examinations and excellent job placement rates. Graduates hold positions in some of the most prestigious accounting firms in the world. Students interested in pursuing the M-Acct. degree must complete the business foundation (see School of Business Administration section of the catalog), and the following undergraduate accounting foundation courses with a C or better: ACTG 203, 305, 306, 307, 321, 401, 410, 411, 425, and 426. Graduate course requirements and additional information on the M-Acct. program can be found at: <http://macct.business.umt.edu>.

#### Credit Restrictions

Students completing the requirements for the undergraduate accounting major listed below (120 credits) must take 90 of the 120 credits required for their degree in courses outside of accounting. Accounting majors must complete all required 400-level ACTG courses at the University of Montana – Missoula (ACTG 401, 410, 411, and 425).

See the School of Business Administration section of the catalog for additional credit restrictions.

#### UG Certificate Programs

The Department offers an undergraduate Certificate in Accounting Information Systems. The requirements to various certificates at the undergraduate level are listed under the general School of Business Administration's Certificates.

#### Finance Major

The finance curriculum is designed to equip students with a comprehensive foundation in financial management, financial markets and investments. Students will gain competence in making effective decisions, performing complex analyses, providing expert financial advice and utilizing current technology tools and data sources.

#### Basic Requirements for Finance Major

All students must complete a faculty approved plan of study during the first semester of their junior year. The plan of study is available from a finance faculty advisor and must be completed and signed by the faculty advisor. Failure to implement and adhere to a program of study may delay graduation. Some courses have grade requirements in the prerequisite course (see the catalog course descriptions). Many of these courses may be taught once a year—see advisor for the schedule each academic year.

Required	Credits
BFIN 420 (FIN 420) Investments	3
BFIN 424 (FIN 424) Markets, Investments, & Fin Engineering	3
BFIN 429 (FIN 429) Financial Management I Theory and Analysis	3
BFIN 439 (FIN 439) Financial Management II Analysis and Problems	3
BFIN 450 (FIN 450) Banking	3
M 162 (MATH 150) Applied Calculus (instead of M 115 (MATH 117) in the lower core)	4
<b>Plus one (1) of the following courses*:</b>	
ACTG 305 (ACCT 311) Corporate Reporting I (including coreq: ACTG 203, 1cr)	4
ACTG 410 (ACCT 421) Cost Management Accounting I	3
BFIN 301 (FIN 301) Analysis of Financial Statements	3
ECNS 301 (ECON 311) Intermediate Microeconomics with Calculus	3
ECNS 302 (ECON 313) Intermediate Macroeconomics	3
ECNS 403 (ECON 460) Introduction to Econometrics	3
<b>2 Additional Courses:</b>	



Finance majors must take two (2) additional courses at the 300- or 400-level from a list of courses selected in consultation with their faculty advisor and incorporated into their program of study. Details are available from advisors.

**\*Any substitution must be approved by the advisor and the department chair. Other finance courses may be offered that may be substituted when appropriate.**

#### Credit Restrictions

The Department does not offer independent study credit for any course already offered for credit. Finance majors must complete all required 400-level BFIN courses at the University of Montana – Missoula. (BFIN 420, 424, 429, 439, and 450 (FIN 420, 424, 429, 439 and 450)). See the School of Business Administration section of the catalog for additional credit restrictions and residency requirements.

## School of Business Administration

- . Special Degree Requirements
- . Courses
- . Faculty

Larry D. Gianchetta, Dean

Terri L. Herron, Associate Dean

Homepage: [www.business.umt.edu](http://www.business.umt.edu)

The School of Business Administration, founded in 1918, is the largest professional school at the University. All programs are accredited by AACSB International–The Association to Advance Collegiate Schools of Business.

#### Mission

The University of Montana's School of Business Administration is a collegial learning community dedicated to the teaching, exploration, and application of the knowledge and skills necessary to succeed in a competitive marketplace.

The goal of the School of Business Administration is to provide a broad foundation in organizational administration and exposure to the basic principles of various business disciplines. The complexity of contemporary society has brought an increasing need for responsible leadership. A professional business education combined with solid grounding in the liberal arts and sciences prepares men and women to meet difficult challenges and to participate in the molding of the future.

Students may pursue a program of studies leading to the B.S. in Business Administration, with a major in any of the following areas: accounting, finance, international business, management, management information systems, and marketing.

#### High School Preparation:

High school students who are planning to major in business administration at the University of Montana-Missoula should take their school's college preparatory curriculum. Additional courses to improve quantitative reading, writing, and computer skills will be beneficial. Students should take as much mathematics as possible including two years of algebra.

#### Credit/No Credit Option:

Most business administration courses are offered for traditional letter grade only. Non-business majors may take business courses credit/no credit if the courses are not identified as traditional letter grade only in the registration system.

All courses required for the major, certificates, and all general education courses must be taken for a traditional letter grade. Business courses taken as electives maybe taken on a credit/no credit basis if not identified as traditional letter grade only and if approved by the instructor and the department chair. For additional information see the General Education section of the catalog.

Opportunity for further study at the graduate level is offered through programs leading to the degrees of Master of Business Administration (M.B.A.), Master of Accountancy (M-Acct.), joint J.D./M.B.A., joint M.B.A./D.P.T. and joint M.B.A./Pharm.D. The M.B.A. and M-Acct. programs are suited to all students regardless of undergraduate training. Further details may be obtained from the Graduate School or by specific inquiries directed to: Director of M.B.A. Program, School of Business Administration or Director of M-Acct. Program, School of Business Administration.

#### Foundation Program for Graduate Work in Business

The M.B.A. and M-Acct. programs are open to graduates of non-business undergraduate programs (prerequisites strictly enforced). Students in the arts and sciences or other professional schools are encouraged to consider the M.B.A. and M-Acct programs. Completion of all of the foundation courses listed below prior to starting the program will reduce the time required for the M.B.A. or M-Acct. at the University of Montana-Missoula by one year; however, many of the courses listed below have prerequisites that are strictly enforced (including, without limitation, a general prerequisite that all upper-division business courses require the completion of each

lower-core business course with a grade of C or better).

- . ACTG 201 (ACCT 201) Principles of Financial Accounting
- . ACTG 202 (ACCT 202) Principles of Managerial Accounting
- . BGEN 235 (MIS 257) Business Law
- . BFIN 322 (FIN 322) Business Finance
- . BMIS 270 (MIS 270) MIS Foundations for Business
- . BMGT 322 (MIS 341) Operations Management
- . BMGT 340 Management and Organizational Behavior
- . BMKT 325 (MKTG 360) Principles of Marketing
- . ECNS 201S (ECON 111S) Principles of Microeconomics
- . STAT 216 ( MATH 241) Introduction to Statistics

For more information, please visit the University of Montana School of Business Administration Graduate School website at <http://www.business.umt.edu/DegreesPrograms/graduatePrograms/deansWelcome.aspx>

### Special Degree Requirements

To earn the Bachelor of Science in Business Administration with a major in accounting, finance, management, management information systems, marketing, or – in combination with a second business major – international business, students must complete the following 13 requirements:

1. Lower Core - Earn grades of C (2.0) or better in all of the following lower-core courses:
  - . WRIT 101 (ENEX 101) College Writing I
  - . M 115 (MATH 117) Probability and Linear Math or M 162 (MATH 150), Applied Calculus, for Finance majors
  - . ECNS 201S (ECON 111S) Principles of Microeconomics
  - . ECNS 202S (ECON 112S) Principles of Macroeconomics
  - . COMX 111A (COMM 111A) Introduction to Public Speaking
  - . CSCI 172 (CS 172) Intro to Computer Modeling
  - . STAT 216 (MATH 241) Introduction to Statistics
  - . ACTG 201 (ACCT 201) Principles of Financial Accounting
  - . ACTG 202 (ACCT 202) Principles of Managerial Accounting
  - . BGEN 235 (MIS 257) Business Law
  - . BMIS 270 (MIS 270) MIS Foundations for Business
2. Admission to the Major - In the semester when students will complete at least 60 cumulative credits, have attempted the university Writing Proficiency Assessment (WPA), and will complete all requirements listed under number 1 above with grades of C (2.0) or better, students must apply for admission to one of the following business majors: accounting, finance, international business, management, management information systems, or marketing. (Students pursuing a major in international business must pair it with one of the other five business majors). NOTE: In order to take 300 and 400 level courses in business, students must achieve junior standing in a business major. Junior standing in a business major is defined as admission to a business major after meeting the above requirements.
3. Grade Requirements - Students must earn a C- or better in all upper-division business courses and in all upper-division prerequisites unless a higher grade requirement is specified (see course descriptions).
4. Upper Core - Unless a higher grade is required in the course description, all business majors must earn at least a C- (1.7) in each of the following courses. The four upper-core classes are prerequisites to a business capstone course (see number 6 below). Some of these courses are prerequisites to certain major courses (e.g., BMKT 325 (MKTG 360) is a prerequisite to marketing courses; BFIN 322 (FIN 322) is a prerequisite to 400-level finance courses, etc.).
  - . BFIN 322 (FIN 322) Business Finance
  - . BMGT 322 (MIS 341) Operations Management
  - . BMGT 340 Management and Organizational Behavior
  - . BMKT 325 (MKTG 360) Principles of Marketing
5. Major Requirements - Earn a cumulative grade point average of at least 2.0 and earn grades no lower than C- in each course required for the major in accounting, finance, management information systems, management, marketing, or international business. (Students pursuing a major in international business should review the parenthetical note in number 2 above.) *See the requirements for each major listed below under Accounting and Finance Department, Management Information Systems Department, or Management and Marketing Department. Apply to one of the majors before beginning junior-level coursework in business.* At least 50% of the credits in a student's major must be earned at the University of Montana-Missoula. In addition, each department may have specific residency requirements for courses with their majors. Once a student begins coursework at the School of Business Administration, upper-division credits applied toward the major must be completed at The University of Montana-Missoula unless transfer credit is approved by the appropriate department chair. Students attending elsewhere on a university-approved exchange program may apply appropriate credits to this residency requirement with prior written approval of the department chair of their major.
6. Capstone Course - All business majors must complete BMGT 486 Strategic Venture Management as their capstone course. As a co-requisite to the capstone course, students must also concurrently complete BGEN 499 Integrative Business Simulation. The

capstone course is normally taken during the student's senior year. All upper-core courses must be completed with a C- or better in each before students enroll in a capstone course. The capstone course must be completed at the University of Montana-Missoula.

7. **Minimum Credits in Business** - Earn at least a C (2.0) average in at least 51 credits taken in the School of Business Administration (and in Economics if the student chooses to count Economics courses in the School of Business Administration). At least 50% of the required credits in business must be earned at the University of Montana. Business credits transferred in after matriculating to the University of Montana must be pre-approved by the department chair in your major.
8. **Minimum Credits Outside of Business** - At least 60 credits (exclusive of activity credits) must be taken in departments and schools/colleges other than the School of Business Administration (or business discipline, if completed elsewhere). If Economics classes are counted in business they may not also be counted outside of business for this requirement.
9. **Minimum Credits to Graduate** - Students are required to successfully complete a minimum of 120 semester credits to graduate from the University of Montana with a bachelor's degree, and 39 of the 120 credits must be earned at the upper-division level. Students who are earning more than one degree in business must earn a minimum of 150 credits.
10. **Grade Point Average (GPA)** - A minimum grade point average of 2.0 is required overall, in business, and in the selected business major.
11. **Upper-division Writing Requirement** - Earn a C- or better in the Upper-division Writing Expectation for the Major. This requirement is normally fulfilled with the capstone course.
12. **Experiential Requirement** - A list of courses that meet this requirement is prepared annually by the UM School of Business Administration. Students who initially enrolled as freshmen at UM are required to complete three business-oriented experiential learning exposures (classes). Students who initially enrolled with more than 60 transfer credits must complete two experiential classes. Students who initially enrolled with more than 90 transfer credits must take one experiential class, normally BMGT 486, the business capstone course. Experiential courses are offered in each of the business majors.
13. **Examination** - Students must pass the major field examination, administered in the semester students take the capstone course.

Course prerequisites are strictly enforced.

## Suggested Course of Study

For all business majors:

	First Year	A	S
BGEN 105S (MIS 100S) Introduction to Business or BMGT 101S (MGMT 101S) Introduction to the Entertainment Business	3	-	-
COMX 111A (COMM 111A) Intro to Public Speaking	-	-	3
CSCI 172 (CS 172) Intro to Computer Modeling	-	-	3
ECNS 201S (ECON 111S) Principles of Microeconomics	3	-	-
ECNS 202S (ECON 112S ) Principles of Macroeconomics	-	-	3
M 115 (MATH 117) Probability and Linear Math OR for Finance majors, M 162 (MATH 150), Applied Calculus	3-4	-	-
WRIT 101 (ENEX 101) College Writing I	3	-	-
Electives or General Education	3	-	6
			15-16 15
	Second Year	A	S
ACTG 201 (ACCT 201) Principles of Financial Accounting	3	-	-
ACTG 202 (ACCT 202) Principles of Managerial Accounting	-	-	3
STAT 216 (MATH 241) Introduction to Statistics	4	-	-
BGEN 235 (MIS 257) Business Law	-	-	3
BMIS 270 (MIS 270) MIS Foundations for Business	-	-	3
Electives and General Education	8	-	6
			15 15

Individual programs may differ from the suggested course of study to better accomplish the needs of the particular student but should be evaluated by an advisor prior to modifying the course of study.

### Teacher Preparation in Business Education

Students who want to be licensed to teach business at the middle and high school level must complete a B.S. in Business Administration with a major in one of the following: accounting, finance, management, management information systems, or marketing. They also must complete the business education course work and the professional licensure program in the College of Education and Human Sciences. See the Department of Curriculum & Instruction for information about admission to the teacher Education Program and completion of this licensure program.

Certificates (Undergraduate)

### Certificate in Accounting Information Systems

The Accounting Information Systems (AIS) certificate prepares undergraduate students for careers that bridge accounting and management information systems, such as consulting, internal audit, external audit, or other positions in which more than a basic

knowledge of either accounting or MIS is necessary. While most appropriate for a student majoring in accounting or MIS, this certificate is available to any undergraduate business major. To obtain an AIS certificate, a student must (1) complete the requirements for one School of Business Administration major, (2) meet with an AIS certificate advisor, and (3) complete the following courses, with an average GPA of 3.0 or better in these 25 credits: ACTG 203, ACTG 321 (ACCT 310), ACTG 305 (ACCT 311), ACTG 306 (ACCT 312), ACTG 411 (ACCT 441), BMIS 365 (MIS 371), BMIS 370 (MIS 370), BMIS 373 (MIS 373), and BMIS 479 (MIS 479). Due to pre-requisite requirements and course scheduling, meeting with an AIS advisor early is crucial.

#### Certificate in Entrepreneurship and Small Business Management

This certificate is offered for students who are interested in launching their own business venture or working in a small- to medium-sized business upon graduation. Students must complete all requirements for at least one School of Business Administration major as well as the following required courses: BMGT 486 (MGMT 348), BMGT 458 (MGMT 458), and one 498 internship course offered by any of the School of Business Administration's major areas; the internship must be with an entrepreneurial venture. Internships must be approved by the Management & Marketing Department Chair. Also required: six credits from outside the student's major area of study, from the following courses: BFIN 301 (FIN 301), BMIS 478 (MIS 478), BMGT 491 (MGMT 344) Advanced Human Resource Management, BGEN 320E (MGMT 320E), BMKT 337 (MKTG 362), BMKT 343 (MKTG 363), BMKT 342 (MKTG 366), or BMKT 460 (MKTG 460).

#### Certificate in Entertainment Management

This certificate is designed to allow undergraduate students to learn and demonstrate advanced skills in specific areas related to careers in the business of entertainment. Students must be registered at the University of Montana-Missoula. Required courses: BMGT 401 (open to all majors), BMGT 402 (open to all majors), and BMGT 403 (open to all majors), and three of the following courses: MART 111A (MAR 111A), MART 112A (MAR 112A), MUSI 132L, JRNL 251 (R-TV 251), BFIN 205, BMGT 275, BGEN 320\*, BMGT 375 (open to all majors), BMGT 420\*, PSCI 466 (PSC 466)\*, BMGT 474 (open to all majors), BMGT 498 (must be an Entertainment/Event Management focused internship; open to all majors; no more than 3 hours accepted towards the Certificate), BMIS 478\*, BMKT 411\*, BMKT 412\*, BMKT 413\*, and BMKT 466\*. Students must earn a "B or Better" in all courses counted towards the Certificate in Entertainment Management. Recommended optional course: BMGT 101.

\* Check prerequisites

#### Certificate in Digital Marketing

This certificate prepares undergraduate students for careers in website design, social media, and internet data analysis. Knowledge associated with professional opportunity rests at the intersection between Management Information Systems and Marketing. Hence, the courses are designed to help students navigate this intersection and to develop the requisite skill set for successful career opportunities. Notably, the certificate addresses the need of both Marketing and MIS students to be skilled users of data and understand the role of quantitative data in decision making. To obtain the Certificate in Digital Marketing, students must (1) complete all requirements for at least one School of Business Administration major; (2) meet with the Certificate in Digital Marketing advisor; (3) complete the following required courses: BMIS 372 (MIS 372), BMKT 343 (MKTG 363), BMKT 460 (MKTG 460), BMKT 420, (4) Complete one of the following courses: FORS 250 (FOR 250), MAR 101L, MART 102 (MAR 102), MART 11A (MAR 111A), MART 340 (MAR 340); (5) complete the Certificate in Digital Marketing application; and (6) receive a combined GPA of 3.0 for all the above courses.

#### Certificates (Graduate)

This certificate includes courses for the innovative student looking to turn an idea into a successful business venture. To earn a graduate Certificate in Entrepreneurship, students must complete all MBA degree requirements and certain other courses.

Required Courses	Credits
MBA 694 Entrepreneurship 1	2
<b>Additional Certificate Requirements, Offered Spring Semester</b>	<b>Credits</b>
MBA 694 Business Plan Workshop	1
MBA 694 Financing New Ventures	1
MBA 694 High-Tech and Legal Issues	1
MBA 655 High-Tech and Legal Issues	1
MBA 694 Growing and Marketing Small Business	1
<b>Additional Certificate Requirements, Offered Summer Semester</b>	<b>Credits</b>
Internship	3

#### G Certificate in Entertainment Management

The graduate Certificate in Entertainment Management includes classes taught by industry professionals dedicated to providing education and opportunities for students to learn about the entertainment industry. Students must complete all requirements for the MBA degree, listed under the graduate Certificate in Entrepreneurship, plus the following:

Required Courses	Credits
BMGT 401 (MGMT 401) Event Management	3
BMGT 402 (MGMT 402) Principles of Entertainment Management I	3

BMGT 403 (MGMT 403) Principles of Entertainment Management II 3

## Courses

**R-** before the course description indicates the course may be repeated for credit to the maximum indicated after the R. Credits beyond this maximum do not count toward a degree.

### Accounting (ACTG) - Course Descriptions

191, 201, 202, 203, 298, 305, 306, 307, 321, 391, 392, 394, 401, 410, 411, 420, 425, 426, 432, 461, 491, 492, 494, 498, 503, 605, 615, 616, 31, 632, 641, 643, 656, 661, 675, 694, 696, 698, 699

### Business Finance (BFIN) - Course Descriptions

191, 192, 205, 267, 292, 298, 301, 322, 391, 392, 394, 410, 415, 420, 424, 429, 439, 450, 473, 491, 492, 494, 498, 522, 651, 681, 694

### Business General (BGEN) - Course Descriptions

105S, 235, 320E, 360, 465, 499

### Business Management (BMGT) - Course Descriptions

101S, 191, 192, 205, 275, 291, 292, 298, 322, 340S, 357, 375, 391, 392, 394, 401, 402, 403, 420, 426, 430, 444, 453, 458, 474, 480, 486, 491, 492, 493, 494, 498, 540, 595, 640, 650, 665, 685

### Business Management Information Systems (BMIS) - Course Descriptions

191, 192, 270, 292, 298, 365, 370, 372, 373, 391, 392, 394, 447, 453, 471, 472, 476, 478, 491, 492, 494, 495, 498, 541, 571, 572, 573, 574, 575, 650

### Business Marketing (BMKT) - Course Descriptions

191, 192, 291, 292, 298, 325, 337, 342, 343, 391, 392, 411, 412, 413, 420, 450, 460, 480, 490, 491, 492, 494, 498, 560, 660

### Master of Business Administration (MBA) - Course Descriptions

603, 645, 655, 692, 694, 698, 699

### Management Information Systems (MIS) - Course Descriptions

260, 261, 262, 263, 264, 265, 266

Prerequisite courses generally must be completed with a grade of C- or better for the prerequisite to be satisfied (some prerequisites, however, require a grade of C or better).

Generally, courses at the 600 level are open only to graduate students who are admitted to a business graduate program. Students who are designated pre-M.B.A. or pre-M.Acct. or graduate non-degree extern may take select courses (foundation courses at the 500 level and select 600 levels only upon pre-approval of a graduate program director). Students must be admitted to a degree program in order to take the required courses in either program.

## Faculty

### Professors

Aaron W. Andreason, Ph.D., Brigham Young University, 1975

Teresa K. Beed, Ph.D., University of Colorado, 1981; C.P.A., Montana, 1973 (Director, M-Acct. Program)

Bruce Costa, Ph.D., Florida State University, 2000 (Chair, Department of Accounting and Finance)

Scott C. Douglas, Ph.D., Florida State University, 2000

David R. Firth, Ph.D., University of California, Los Angeles, 2003

Gerald E. Evans, Ph.D., Claremont Graduate School, 1985

Jerry L. Furniss, J.D., University of Idaho, 1980

Larry D. Gianchetta, Ph.D., Texas A & M, 1974 (Dean)

Terri L. Herron, Ph.D., University of Texas at Arlington, 1996; C.P.A. Texas, 1987 and Montana, 2010; C.I.S.A., 2000 (Associate Dean)

Keith J. Jakob, Ph.D., University of Utah, 2000

Belva L. Jones, Ph.D., Oklahoma State University, 1976 (Chair, Department of Management Information Systems)

Timothy A. Manuel, Ph.D., University of South Carolina, 1988

Jakki J. Mohr, Ph.D., University of Wisconsin-Madison, 1989

Jack K. Morton, J.D., The University of Montana, 1971

Nader H. Shoostari, Ph.D., Arizona State University, 1983

Lee N. Tangedahl, Ph.D., University of Colorado, 1976

Klaus Uhlenbruck, Ph.D., University of Colorado, 1996 (Chair, Department of Management and Marketing)

#### Associate Professors

Patrick M. Barkey, Ph.D., University of Michigan, 1986 (Director, Bureau of Business and Economic Research)

Michael R. Braun, Ph.D., University of Massachusetts, Amherst 2006

Carol L. Bruneau, Ph.D., University of Arizona, 1997

Shawn F. Clouse, Ed.D., University of Montana, 2001

Anthony J. Crawford, Ph.D., Pennsylvania State University, 1993

Bambi M. Douma, Ph.D., University of Arizona, 2003

Michael V. Harrington, J.D., University of Montana, 1990

Joshua Herbold, Ph.D., University of Illinois, Champaign-Urbana, 2005; C.P.A., Montana, 2009

Cameron D. Lawrence, Ph.D., London School of Economics, 2005

Fengru Li, Ph.D., University of Washington, 1996

Clayton A. Looney, Ph.D., Washington State University, 2003

Ronald F. Premuroso, Ph.D., Florida Atlantic University, 2008; C.P.A. Florida, 1976, C.F.E., 2011

Simona Stan, Ph.D., University of Missouri-Columbia, 2001 (Director, MBA Program)

Kenton D. Swift, Ph.D., University of Wisconsin-Madison, 1991; C.P.A., Montana, 1992

#### Assistant Professors

Justin W. Angle, Ph.D., University of Washington, 2012

Casey J. McNellis, Ph.D., Washington State University, 2011; C.P.A. Washington, 2003

Emily J. Plant, Ph.D., University of Kentucky, 2010

Suzanne G. Tilleman, Ph.D., University of Oregon, 2009

#### Emeritus Professors

Michael R. Brown, J.D., The University of Montana, 1969; C.P.A., Montana, 1963

Bruce P. Budge, Ph.D., University of Minnesota, 1968; C.P.A., Idaho, 1973

MaryEllen Campbell, M.A., University of Illinois, 1969

Robert J. Connoles, Ph.D., University of Iowa, 1968

Richard T. Dailey, Ph.D., Pennsylvania State University, 1968

Maureen J. Fleming, Ph.D., Southern Illinois University, 1969

Robert W. Hollmann, Ph.D., University of Washington, 1973

Jack J. Kempner, Ph.D., Ohio State University, 1956; C.P.A., Montana, 1957

Clyde W. Neu, Ph.D., University of Minnesota, 1973

Paul E. Polzin, Ph.D., Michigan State University, 1968 (Director Emeritus, Bureau of Business and Economic Research)

Roy W. Regel, Ph.D., University of Colorado, 1985; C.P.A., Colorado, 1973; C.M.A., 1992

Barbara P. Reider, Ph.D., Kent State University, 1991; C.P.A., Montana, 2010; C.M.A., 1992; C.I.A., 1996; C.F.M., 1998; C.G.F.M., 2002

Thomas J. Steele, Ph.D., Pennsylvania State University, 1974

Norman E. Taylor, Ph.D., University of Minnesota, 1955

Joseph A. Weber, Ph.D., University of Minnesota, 1983; C.P.A., Montana, 1975

Richard P. Withycombe, Ph.D., University of Oregon, 1972

## Department of Management Information Systems

Belva L. Jones, Chair

The Department of Management Information Systems offers a major in Management Information Systems within the Bachelor of Science in Business Administration.

### Management Information Systems Major

The management information systems curriculum prepares students to manage an organization's information resources. The major focuses on:

- 1) analyzing and managing the flows of information within and across the organization's business processes;
- 2) effectively managing the acquisition and utilization of information technology; and
- 3) using both information and information technology to enhance the organization's strategic advantage.

The knowledge and skills developed in the curriculum lead to careers in consulting, programming, systems analysis and design, database administration, electronic commerce, telecommunications, network administration, and project management.

### Basic Requirements for Management Information Systems Major

Required:	Credits
BMIS 365 (MIS 371) Business Applications Development	3
BMIS 370 (MIS 370) Managing Information and Data	3
BMIS 372 (MIS 372) Information Infrastructures	3
BMIS 373 (MIS 373) Systems Analysis and Design	3
BMIS 476 (MIS 476) Integrated Project Management for IS	3
BMIS 498 (MIS 498) Internship or BMIS 495 (MIS 491) Information Systems Practicum	3
<b>Choose two courses (6 credits) from the following:</b>	
BMIS 471 (MIS 471) Fundamentals of Network Management	3
BMIS 472 (MIS 472) Advanced Network Management	3
BMIS 478 (MIS 478) Electronic Commerce a Managerial Prospective	3
BMIS 479 (MIS 479) Introduction to Consulting	3
BMIS 491 (MIS 495) Special Topics(up to 6 credits)	
BMIS 492 (MIS 496) Independent Study (up to 6 credits)	
BMKT 460 (MKTG 460) Marketing of High-Technology Products and Innovations	3
ACTG 321 (ACCT 310) Accounting Information Systems I (coreq., ACTG 203)	3
Upper-division computer science (up to 6 credits)	
C&I 341 Information Management and Design	3
EDU 472 (C&I 444) Advanced Technology and Supervision	3
CS 181 Electronic Publishing on the World Wide Web	3
M 361 (MATH 381) Discrete Optimization	3
M 362 (MATH 382) Linear Optimization	3

**NOTE: Students completing their major with lower-division classes still must earn a total of 39 upper-division credits to fulfill University requirements. Management Information Systems majors must take BMIS 476 (MIS 476): Project Management at The University of Montana-Missoula.**

### UG Certificate Programs

The requirements to earn various certificates at the undergraduate level are listed under the general School of Business Administration's Certificates.

## Department of Management and Marketing

Klaus Uhlenbruck, Chair

The Department of Management and Marketing offers three majors within the Bachelor of Science in Business Administration: International Business, Management, and Marketing.

### International Business Major

The international business major provides students with the opportunity to focus on the managerial, economic, cultural, political and social dimensions that will prepare them for functioning in a global business community.

#### Basic Requirements for International Business Major

Required	Credits
BGEN 360 (MGMT 368) International Business	3
BMGT 480 (MGMT 480) Cross-Cultural Management	3
BFIN 473 (FIN 473) Multinational Financial Management and FDI	3
<b>And one of the following:</b>	
BGEN 465 (MGMT 465) World Trade and Commerce	3
BMGT 491 Special Topics course on international business issues	3

Plus the completion of all of the requirements for at least one other functional major area within the School of Business Administration (Accounting, Finance, Management Information Systems, Management, or Marketing).

Plus 6 credits, approved by the business school's international business advisor, and selected from internationally-focused courses, an international exchange, an international internship, or a study abroad program. Students should consider an area/cultural focus, such as China, Europe, India, Japan, Russia, or South America.

Plus four semesters or the equivalent (as determined by the Department of Modern and Classical Languages and Literatures) of any one foreign language is required. It is recommended that students complete the foreign language by the end of their junior year.

### Management Major

The management major is designed to provide students with the interpretative, analytical, and integrative skills required in managerial positions in a variety of business and nonprofit organizations, including human resource management or starting up their own business.

#### Basic Requirements for Management Major

Required	Credits
BGEN 360 (MGMT 368) International Business	3
BMGT 420 (MGMT 420) Leadership and Motivation	3
BMGT 444 (MGMT 444) Management Communication	3
BMGT 426 (MGMT 446) Strategic Management	3
<b>Plus twelve (12) credits from the following:</b>	
BGEN 320E (MGMT 320E) Business Ethics and Social Responsibility	3
BMGT 401 (MGMT 401) Event Management	3
BMGT 402 (MGMT 402) Principles of Entertainment Management I	3
BMGT 403 (MGMT 403) Principles of Entertainment Management II	3
BMGT 430 (MGMT 430) Business Negotiations	3
BMGT 458 (MGMT 458) Advanced Entrepreneurship Seminar	1-3
BGEN 465 (MGMT 465) World Trade and Commerce	3
BMGT 480 (MGMT 480) Cross-Cultural Management	3
BMGT 491 (MGMT 495) Special Topics	1-6
BMGT 493 International Experience in Business	1-6
BMGT 494 (MGMT 494) Seminar in Management	1-6
BMGT 498 (MGMT 498) Management Internship	1-3
COMX 415 (COMM 451)* Intercultural Communication	3
ECNS 312* (ECON 323) Labor Economics	3
PSCI 462 (PSC 460)* Human Resource Management	3

\* The use of non-business courses in the elective basket may leave students short of the 51 business credits. Students need to select courses accordingly.

### UG Certificate Programs



The requirements to earn various certificates at the undergraduate level are listed under the general School of Business Administration's Certificates.

#### Masters of Business Administration

The University of Montana Master of Business Administration program is specifically designed to meet the business and community needs of Montana. Our program allows the flexibility to meet individual professional and personal career goals. Students can attend day and weekend classes on campus in Missoula or evening classes across the state. Course requirements and additional information on the MBA program can be found at: <http://mba.business.umt.edu>

#### Marketing Major

The marketing major provides students with knowledge and skills required in the process of marketing products, services, or ideas. The contemporary role of marketing in society is treated from various perspectives, including functional and institutional analysis, along with the application of decision making tools.

#### Basic Requirements for Marketing Major

	Required	Credits
BGEN 360 (MGMT 368) International Business		3
BMKT 337 (MKTG 362)** Consumer Behavior		3
BMKT 342 (MKTG 366)** Marketing Research		3
BMKT 343 (MKTG 363)** Integrated Marketing Communication		3
BMKT 480 (MKTG 461) Marketing Management		3
<b>Nine (9) credits from the following list of courses; at least six of those credits have to be from the upper division business courses on the list:</b>		
BMKT 411 (MKTG 411) Services/Relationship Marketing		3
BMKT 412 (MKTG 412) Nonprofit Marketing		3
BMKT 413 (MKTG 413) Sports Marketing		3
BMKT 420 Integrated Online Marketing		3
BMKT 450 (MKTG 450) Marketing Connections		3
BMKT 460 (MKTG 460) Marketing of High-Technology Products and Innovations		3
BMKT 490 (MKTG 369) Undergraduate Research		3-6
BMKT 491 (MKTG 495) Special Topics		3
BMKT 498 (MKTG 498) Marketing Internship		3
BMGT 401 (MGMT 401) Event Management		3
BMGT 402 (MGMT 402) Principles of Entertainment Mgmt I		3
BMGT 403 (MGMT 403) Principles of Entertainment Mgmt II		3
BMGT 444 (MGMT 444) Management Communication		3
BMGT 493 International Experience in Business		3
COMX 351 (COMM 321)* Principles of Public Relations		3
COMX 352 (COMM 322)* Public Relations Portfolio		3
MAR 101L* Intro to Media Arts		3
MART 102 (MAR 102)* Digital Technology in the Arts		3
MART 111A (MAR 111A)* Integrated Digital Art		3
MART 341 (MAR 341)* Intro to Web Design		3
BMIS 478 (MIS 478) Electronic Commerce		3

\* The use of lower-division and non-business courses in the elective basket may leave students short of the 39 upper division credits and/or 51 business credits. Students need to select courses accordingly.

**\*Please check course descriptions for prerequisites.**

**\*\*BMKT 337, 342, and 343 (MKTG 362, 366, and 363) are prerequisites for BMKT 480 (MKTG 461).**

#### UG Certificate Programs

The Requirements to earn various certificates at the undergraduate level are listed under the general School of Business Administration's Certificates.

### Suggested Course of Study

For all business majors:

	First Year	A	S
BGEN 105S (MIS 100S) Introduction to Business or BMGT 101S (MGMT 101S) Introduction to Entertainment Management	3	-	-
COMX 111A (COMM 111A) Introduction to Public Speaking	-	-	3
CSCI 172 (CS 172) Computer Modeling	-	-	3
ECNS 201S (ECON 111S) Principles of Microeconomics	3	-	-
ECNS 202S (ECON 112S) Principles of Macroeconomics	-	-	3

WRIT 101 (ENEX 101) Composition	3	-
M 115 (MATH 117) Probability and Linear Math	3	-
OR for Finance majors, M 162 (MATH 150), Applied Calculus	4	-
Electives or General Education	3	6
	15-16	15
	<b>A</b>	<b>S</b>
<b>Second Year</b>		
ACTG 201 (ACCT 201) Principles of Financial Accounting	3	-
ACTG 202 (ACCT 202) Principles of Managerial Accounting	-	3
STAT 216 (MATH 241) Introduction Statistics	4	-
BGEN 235 (MIS 257) Business Law	-	3
BMIS 270 (MIS 270) MIS Foundations for Business	-	3
Electives and General Education	8	6
	15	15

Individual programs may differ from the suggested course of study to better accomplish the needs of the particular student.

## Office for Student Success

The mission of the Office for Student Success (OSS) is to help students successfully transition to college, progress academically and ultimately become graduates of The University of Montana. OSS initiates and leads collaboration with academic departments, state and local organizations and administrative units across campus to define, implement and assess programs that support students academically, financially and socially.

OSS delivers direct support services to students in the form of academic advising, math and writing tutoring, and freshman/sophomore programming. The Undergraduate Advising Center and the Writing Center are administered by the OSS.

### Undergraduate Advising Center

The Undergraduate Advising Center is a university service staffed by professional advisors and peer advising assistants committed to helping undergraduate students achieve a successful college experience. The UAC programs guide students as they transition to college, assisting them in clarifying academic goals and exploring majors.

Advisors in the UAC work with both faculty and full-time advisors in each of the Colleges to assist students in making decisions about major areas of study and to ensure smooth transitions to and from majors. Working collaboratively, the full-time advisors of the Center consult with academic departments to provide new and creative opportunities for students to explore majors and careers that align with their abilities, interests, and strengths.

UAC advisors are the advisor of record for first year students who plan to major in Business, Pre-Nursing, Psychology, or Communication Studies and all students who have not yet declared a major.

### The Writing Center

The Writing Center administers programs to help undergraduate and graduate students in all disciplines become more independent, versatile, and effective writers, readers, and thinkers. Writing Center tutors engage students in structured discussions about writing, challenging them to develop as writers and thinkers who contribute to local and global conversations. Focused on the development of the writer, tutors help students to recognize their strengths and weaknesses as communicators and to practice strategies appropriate to various writing contexts.

The Writing Center also collaborates with faculty to positively impact student performance. These collaborations include delivery of discipline-specific writing workshops across the curriculum and professional development opportunities such as workshops on how to design writing assignments and how to provide students with effective feedback on their writing. In an effort to support all writers at The University of Montana, the Writing Center also supports faculty and staff writers by providing one-to-one consultations on their professional writing projects.

### Four Bear Four-Year Graduation Plan

The Four Bear Four Year Graduation program is designed for students committed to completing their degree at The University of Montana within four years. Four Bear participants are provided with registration priority after signing the Four Bear contract in the first year. The program pays tuition and mandatory fees past the planned graduation time provided the student has met all of the requirements for continued participation. Pharmacy is an exception to the four-year plan; students are given five or six years to complete this degree.

Most department sections in the catalog include a suggested four-year course of study to complete a major. Four-Bear students must meet with their advisors in order to customize a plan to fit individual circumstances and academic.

### Fees

Finalizing Your Registration Bill

Refund Policy

Withdrawal Policy

#### General

The student expense information provided in this catalog is based upon the rates for the 2011-12 academic year as submitted to and approved by The Montana Board of Regents of the Montana University System. The Board of Regents reserves the right to adjust fees at any time. Current information may be obtained by contacting Business Services, Lommasson Center, University of Montana-Missoula, Missoula, Montana 59812. The phone number is 406-243-2223, email address [um.statements@mso.umt.edu](mailto:um.statements@mso.umt.edu) or visit our website at <http://www.umt.edu/bussrvcs/students/default.aspx>.

#### Finalizing Your Registration Bill

A student's registration is not complete until it is "finalized". Finalizing the registration bill confirms registration of the courses listed on the registration bill and the student's acceptance of the associated tuition and fee charges. Even if financial aid and/or scholarships cover the full cost of the registration bill, it must still be finalized. **FAILURE TO FINALIZE YOUR REGISTRATION BILL WILL RESULT IN THE CANCELLATION OF CLASSES FOR THE SEMESTER.** Foreign and Canadian checks are not accepted. Credit card payment is accepted using VISA, and MasterCard. Payment/finalization may be completed electronically via the student's CyberBear at <http://cyberbear.umt.edu/>. Please see the published payment/finalization deadlines on the CyberBear home page Important Dates link: [http://events.umt.edu/?calendar\\_id=27&upcoming=upcoming&](http://events.umt.edu/?calendar_id=27&upcoming=upcoming&).

#### Fee Schedule

The tuition and mandatory fee schedules [http://www.umt.edu/bussrvcs/Students/Tuition and Fees/default.aspx](http://www.umt.edu/bussrvcs/Students/Tuition%20and%20Fees/default.aspx) posted on the Business Services website are for the 2011-2012 academic year. Different fee schedules apply to each type of student – undergraduate lower/upper, Missoula College, graduate first/advanced, graduate TA/RA first/advanced, law fall/spring, WUE undergraduate lower/upper, WUE Missoula College, post-baccalaureate, distance undergraduate lower/upper, distance Missoula College, distance graduate first/advanced, distance post-baccalaureate. The full schedule of fees and fee definitions are available at [http://www.umt.edu/bussrvcs/Students/Tuition and Fees/default.aspx](http://www.umt.edu/bussrvcs/Students/Tuition%20and%20Fees/default.aspx) or by calling Business Services at 406-243-2223. Students enrolled at 12 or more credits are assessed at the same rate. Student enrolled less than 12 credits are assessed per credit. Students enrolled for 6 credits or fewer have the option of paying an additional amount to cover the ASUM activity fee, campus recreation fee, health service fee and athletic fee.

Audited courses are assessed the same fees as courses taken for credit.

See the complete inventory of tuition and mandatory fee tables at <http://www.umt.edu/bussrvcs/Students/Tuition%20and%20Fees/default.aspx>

#### Delivery of Student Credit Balance Refunds

The University of Montana processes all student credit balance refunds electronically to deposit to a bank account (checking or savings) selected by the student. The bank account may be an existing account or the student is eligible to open an online bank account through Higher One. Each student will receive a UM Refund Choice Card (mailed in a bright green envelope) that they will use to access the UM contracted third-party system to make their choice at <http://www.umt.edu/bussrvcs/Students/Student%20Refunds/default.aspx>. The student will need to make their choice only once unless they change or close their bank account. The card should be kept in a secure place in case the student needs to make changes to their current choice. Even if a student does not expect to receive refunds due to financial aid, it is still important to select a preference. For instance a student may have a credit balance if classes are dropped or they withdraw that would require refunding to them.

*A student's refund may be delayed if the student has not completed the setup of their electronic delivery choice.*

#### Fee Schedule

The tuition and mandatory fee schedules are posted on the Business Services website for the 2013-14 academic year at <http://www.umt.edu/bussrvcs/Students/Tuition%20and%20Fees/default.aspx> or call Business Services at 406-243-2223. Different tuition/fee schedules apply to each type of student (i.e. undergraduate lower/upper, WUE main campus/MC, MC, post baccalaureate, graduate first/advanced, distance only and law?). The Board of Regents reserves the right to adjust fees at any time.

Students enrolled for 6 credits or fewer have the option of paying an additional amount to cover the Activity Fee, Campus Recreation Fee, Health Service Fee and Athletic Fee. Please see the Fee Definitions at [http://www.umt.edu/bussrvcs/studentfees/mslatuitionfees\\_definitions.pdf](http://www.umt.edu/bussrvcs/studentfees/mslatuitionfees_definitions.pdf) for details about these fees. Audited courses are assessed the same fees as courses taken for credit.

A Distance Learning fee is assessed on all online courses to partially defray costs associated with courses delivered online over the

World Wide Web. On line courses are assessed an additional fee of \$48.00 per credit.

The Board of Regents may approve additional fees at any time. Fees frequently are assessed for selected courses in subjects such as: Accounting Technology, Art, Biology, Biochemistry, Building Maintenance Engineering, Business, Chemistry, Computer Technology, Culinary Arts, Curriculum and Instruction, Dance, Diesel Equipment Technology, Drama, Educational Leadership, Electronics Technology, Forestry, Geology, Health and Human Performance, Heavy Equipment Operation, Journalism, Legal Studies, Mathematics, Metals Processes, Microbiology, Military Science, Music, Nursing, Pharmacy, Physical Therapy, Resource Conservation, Respiratory Therapy, Science, Secretarial Technology, Small Engines, Surgical Technology, Truck, Welding, and Wildlife Biology. This listing may not be all-inclusive and does not preclude a specific fee from being assessed.

Special fees are assessed for extended field trips in various departments.

An Educational Service Fee is charged for the off-campus M.B.A. and M.P.A. programs.

A fee is charged for cooperative education internships.

Purchase of supplies, equipment, or tools may be required by certain programs.

#### Law School Fees

The proposed 2011-12 School of Law fees for 15 credits are approximately \$3,237 for autumn and \$3,212 for spring for an in-state student and \$11,175 for autumn and \$11,150 for spring for an out-of-state student. The Health Service fee is included. Health Insurance coverage is available to students for an additional charge.

#### Law Special Fees

All persons who apply for admission to the School of Law must pay an acceptance fee of \$300.00 (\$150.00 is refundable if written notice is received by the due date if student does not want to attend) which is applied toward payment of fees upon entering and attending the School of Law in the semester for which application was made.

In addition to the above fees, Law School students must pay an additional \$145.00 per credit per semester. The amount is applied to instructional costs.

All law students are assessed a \$25.00 law activity fee during autumn. An additional academic facilities fee of \$50 per semester plus \$1.25 per credit hour is also assessed.

#### Continuing Education and Summer Programs

Fees, room and board costs for Summer Programs and fees for registration in Continuing Education are contained in separate publications. These publications can be obtained by contacting Continuing Education and Summer Programs 406-243-2900, University of Montana-Missoula, Missoula, MT 59812 or by visiting the website at [www.umt.edu/ce](http://www.umt.edu/ce).

#### Refund Policy

##### Refund for Dropped Classes

Students who have finalized their registration bill may drop classes through the first fifteen days of the Fall and Spring semesters. Adjustments of the associated tuition & fees and financial aid will be made to their student account during that time. Beginning with the sixteenth class day, there is no refund for classes dropped and there is a \$10 fee for each class dropped. Students who finalized with financial aid should always check with the Financial Aid office before dropping classes to make sure they fully understand the financial impacts.

##### Refund for Withdrawal from the University

##### Refund for Dropped Classes

Students who have finalized their registration bill may drop classes through the first fifteen days of the Autumn and Spring semesters. Adjustments of the associated tuition & fees and financial aid will be made to their student account during that time. Beginning with the sixteenth class day, there is no refund for classes dropped and there is a \$10 fee for each class dropped. Students who finalized with financial aid should always check with the Financial Aid office before dropping classes to make sure they fully understand the financial impacts as dropping classes may result in the student having to immediately repay grant aid they received or make them ineligible to receive aid that has not been disbursed yet.

##### Refund for Withdrawal from the University

If a student decides to withdraw from classes after finalizing the registration bill, the student should contact the University of Montana Registrar's Office in Griz Central, located in the Lommasson Center, and complete a withdrawal form to begin the official withdrawal process\*\*. This procedure will enable the University to prorate the fees assessed based upon the official date of withdrawal.

*Students who desire to continue the Blue Cross Health Insurance must contact the Curry Health Center prior to withdrawal. Otherwise,*

*the insurance premiums will automatically be refunded and coverage will be lost.*

For students receiving Federal financial aid, they must be attending classes to remain eligible for Federal Financial Aid. If a student drops courses, stops attending classes, never starts attending a class or withdraws from the University of Montana, the University and/or the student may be required to return federal funds awarded to the student. It is very important for students receiving Federal financial aid to contact Business Services at 406-243-2223 prior to withdrawing. If a student officially withdraws during the first fifteen days of class, the tuition and fees will be re-assessed for the semester based upon the official date of withdrawal. A student's official withdrawal date is determined by:

- . the date the student began the institution's withdrawal process or officially notified the institution of intent to withdraw; or
- . the midpoint of the period for a student who leaves without notifying the institution; or
- . the last date of attendance by the student at a documented academically related activity.

Students who withdraw from the University for the Spring or Autumn semesters after finalizing the registration bill will receive pro-rated assessment of tuition and fees according to the following schedule.

	Before classes begin	1st Week	2nd Week	3rd Week	4th week or Later
Registration	none	none	none	none	none
Tuition/Fees	100%	90%	75%	50%	none
Blue Cross Ins. **	100%	100%	100%	100%	none
Other Fees	varies	varies	varies	varies	varies

Charges for room and board will be re-assessed on a pro-rated basis. During the final two weeks of the semester, room charges will not be re-assessed. Student who do not formally and completely withdraw are not eligible for a refund. The University of Montana will reassess the tuition and fees for students using the Deferred Payment Plan if the student officially withdraws during the first fifteen days of a semester. However, the student may still owe a balance to the University.

#### Return of Title IV Funds (Federal Financial Aid)

The University of Montana Refund Policy exists for calculating the refund of institutional charges when a student withdraws. The federal "Return of Title IV Funds" formula dictates the amount of Federal Title IV aid that must be returned to the federal government by the University and the student. The federal formula is applicable to a student receiving Title IV Funds if that student withdraws on or before the 60% point of time in the semester. The student may also receive a refund of some institutional charges through the University of Montana's refund policy.

The federal formula requires a return of Title IV aid if the student received federal financial assistance in the form of a Federal Pell Grant, TEACH Grant, Federal Supplemental Educational Opportunity Grant (SEOG), Federal Perkins Loan, Federal Direct Loan (subsidized or unsubsidized), or GFederal PLUS loans and the student withdraws on or before completing 60% of the semester. The percentage of Title IV aid to be returned is equal to the number of calendar days remaining in the semester (effective on the official withdrawal date) divided by the number of calendar days in the semester (scheduled academic breaks of five consecutive days or more are excluded). After all Title IV aid return requirements have been satisfied, remaining credit balances will first be applied to satisfy outstanding University tuition, fees, and institutional charges. Any remaining credit balances will then be refunded to the student. Once you have completed more than 60% of the semester, you have earned all (100%) of your assistance.

*If you withdraw from the University of Montana before completing 60% of the semester, you may have to repay any unearned financial aid funds that were already disbursed to you. Please contact staff in The University's Business Services, located in Griz Central or call 406-243-2223, if you have any questions about refund of tuition and fees or the calculation of the return of federal financial aid PRIOR TO WITHDRAWING.*

#### Distribution Priority for Return of Title IV Funds

1. Unsubsidized Federal Stafford Loan
2. Subsidized Federal Stafford Loan
3. Federal Perkins Loan
4. Federal Graduate PLUS Loan
5. Federal Parent PLUS Loan
6. Federal Pell Grant Program
7. Federal SEOG Program
8. TEACH Grant
9. State, Private, or Institutional Aid
10. The Student
- 11.

#### Hardship Withdrawal Policy

A hardship withdrawal may be granted to a student who experienced a catastrophic unanticipated condition or event after the fifteenth class day of a semester, if the condition prevents the student from completing academic course work. If medical, this must be

documented by a health care provider. A medical hardship withdrawal will only be granted in cases of extreme hardship resulting from a serious or life threatening medical condition. In order for a student to petition to receive a hardship withdrawal from The University of Montana, the student must contact the Registrar's Office or Business Services Office to start the hardship withdrawal process. Upon approval of a hardship withdrawal, the Registrar's Office will enter the appropriate withdrawal information on the student's academic record. Each student's circumstances are different, and the Hardship Withdrawal Committee will determine the criteria for awarding a hardship withdrawal. At minimum, the student must meet the following criteria:

1. Is a degree seeking student, and
2. Is either a resident or non-resident student, and
3. Is a continuing student, and
4. Is maintaining satisfactory progress based upon The University of Montana's academic regulations.

Business Services will calculate the tuition credit amount for all approved hardship withdrawals and will notify the Financial Aid Office.

*Students withdrawing during the first fifteen class days of a semester for medical reasons should contact the Curry Health Center in order to maintain the health insurance coverage. Otherwise, the medical insurance premiums will be automatically refunded and coverage will be lost.*

The hardship withdrawal process is not the appropriate venue to resolve or petition academic matters. Such concerns must be addressed in the student's respective department, school, or college. In addition, the hardship withdrawal process is not an alternative means to drop classes after the normal drop date, to remove unwanted grades, or preclude resulting academic/financial aid actions (warning, probation, suspension, etc.)

#### Other Costs and Policies

##### Late Registration

A student who does not complete registration, including payment of tuition & fees or finalizing via [Cyberbear.umt.edu](http://Cyberbear.umt.edu), FIFTH class day is assessed a late registration fee of \$40.00. After the fifteenth class day, a petition is required to register and, if approved, an additional \$40.00 will be assessed for a total late fee of \$80.00.

##### Returned Checks

A charge of \$25.00 will be assessed on checks (paper or electronic) returned from the bank. Any paper or electronic check tendered in payment of registration fees and not honored by the bank upon which it is drawn may result in cancellation of a student's registration. The student will be assessed the late registration fee of \$80.00 maximum in addition to the \$25.00 service charge.

##### Fee Policy on Drop/Adds

Students must pay for all courses for which they are enrolled at registration. However, within the first fifteen class days, they may drop or add courses. The courses for which students are enrolled on the fifteenth class day will determine any fee adjustments (see fee schedule) or financial aid adjustments. Beginning the sixteenth class day, courses dropped will not result in a reduction of fees but courses added will increase credit hour enrollment and may result in an additional charge. Payment is due within 10 days of the day courses are added.

*CyberBear will not allow a student to drop all courses. Dropping all courses is considered a withdrawal from the University. Please refer to the Withdrawal Policy section in the catalog for information on how to withdraw and the associated Refund Policy.*

##### Drop/Add Processing Fee

A \$10.00 processing fee will be charged for each course that is added or dropped after the fifteenth instructional day. See the summer class schedule for summer session deadlines.

##### Deferred Payment Plan

The University of Montana offers a payment plan to help students and their families pay their tuition, mandatory fees, room and board.

Eligibility is based on the following criteria:

1. Making payments as scheduled
2. Maintaining Satisfactory Academic Progress
3. Adequate financial resources to repay the loan
4. Use all UM Financial Aid offered
5. Fully complete and sign all required documents

The plan provides for the payment of at least one third of the total fees along with a \$30.00 administrative charge at the time of registration, payment of one third approximately 30 days after registration and payment of the full balance approximately 60 days after registration.

Registration, tuition and mandatory fees less any Financial Aid may be deferred. Student insurance and non-mandatory/course fees may not be deferred.

Deferred Payment Plan (DPP) applications must be submitted via CyberBear. The instructions (at right) will lead you to the DPP application. Be prepared to fill out the necessary application forms including parent and spouse information, two references, and cosigner information (if applicable). Your application will be reviewed by Business Services within 3 business days and you will be notified by UMConnect on the status of your application.

The signing and adherence to the terms and conditions of a promissory note will be required and no fees may be deferred by any person who owes the University any fees, fines, loans or other charges or who has previously deferred fees and failed to make timely payments. A \$15.00 fee will be assessed each time a payment is late.

This plan is not available for the summer session.

#### Monthly Bill Statements

Monthly bill statements will be mailed to the student's current mailing address displayed in CyberBear. In addition, an electronic notification will be e-mailed to their official University of Montana e-mail account. It is the student's responsibility to check their mail and official University of Montana e-mail account for these statements and notices. Payments for billed amounts are due by the due date indicated on the statements and electronic message. Failure to make timely payments will result in an interest charge assessed on balances not paid in full by the following monthly billing. Payments can be made (1) online in CyberBear; (2) at the cashiers station located in Griz Central (2nd floor Lommasson Center); or by mailing payments to Student Accounts, Business Services, The University of Montana, 32 Campus Drive #2304, Missoula, MT 59812-2304.

#### Non Payment

A student who owes regular fees and charges including room and board or has an overdue debt owed to the University for any fees, fines, or other charges will not be able to register, secure any transcript or record, or access any University facilities or services until the full amount due has been paid or satisfactorily resolved with Business Services. Interest may be charged at the rate of 10% on the balance due from the day after the due date until the full amount has been paid and any attorney's fees or other costs or charges necessary for the collection of the amount owed may be added to the balance due.

#### Determination of In-State Fee Status

The Montana University System classifies all students as either in-state or out-of-state. This classification affects admission decisions and fee determinations. The basic rules for making the classification are found in Board of Regents' Policy. It is each student's responsibility to secure and review a copy of the policy. Failure to be aware of the rules will not be cause for granting any exceptions to them. A copy of the policy is available from the Admissions Office or the Registrar's Office. It is important to bear in mind that each residency determination is based on the unique set of facts found in each individual's case. Students participating in the Western Undergraduate Exchange or the National Student Exchange programs are not eligible to gain residency. If you have questions concerning your particular case, be sure to contact the unit to which you are applying for admission or at which you are already enrolled. Generally, the Admissions Office or the Registrar's Office will be able to assist you.

With certain exceptions, in order to be eligible for in-state status, a person must meet a 12-month durational residency test. You will have to demonstrate a bona fide intent to become a Montana resident. The 12-month period does not start until some act indicative of intent to establish residency is taken. Mere presence in Montana, enrollment at a unit or rental agreements will not serve to start this period. Sufficient acts to start the period are registration to vote, obtaining a Montana driver's license, registration of a motor vehicle in Montana, purchase of a home in Montana or filing of a resident Montana tax return. The 12-months must be completed by the 15th instructional day to qualify for that term.

Your actions during the 12 month waiting period will be used to determine whether you are in the state as a bona fide resident or merely for educational purposes. The decision on your residency will not generally depend on just one factor. The following are the things you need to do that will support a claim of bona fide residency.

1. Register to vote if you are a voter
2. License a vehicle if you operate one in Montana
3. Obtain a driver's license if you drive
4. Be physically present in Montana, not out of the state of Montana, for more than a total of 30 days
5. Can Not be claimed as a tax exemption by residents of another state or file taxes as a resident of another state
6. Provide at least 51% of your own financial support (this means you will need to document to us that you have contributed approximately \$6000 towards your support during the twelve month waiting period)
7. File a Montana resident income tax return (this is important for all who claim residency in Montana, regardless of the amount of earnings)
8. Only register for six (6) credits or less per semester (including summer school) during the twelve month waiting period. Registering for more than 6 credits creates a strong presumption that you are here for educational purposes, and may disqualify you from achieving in-state status.

Be certain to secure the Board of Regents residency Policy and questionnaire from the Registrar's Office in the Lommasson Center 201 or at the Registration Counter in Griz Central . At the end of your twelve month waiting period you must complete the residency questionnaire and attach copies of your driver's license, vehicle registration, voter's registration and proof of your earnings for the twelve months and return it to the Registrar's Office for review. This documentation can be submitted to the Registrar's Office up to 30 days in advance of the petitioners start date and not later than the 15h instructional day of the semester for which the status is sought. When a student petitions or meets the requirements after the 15th instructional day, a change in classification, if granted, will not be retroactive and will become effective for the next term. Reclassification is not automatic and will not occur unless the individual so petitions. It is the student's responsibility to meet any filing deadlines that are imposed by the appropriate unit of the System. All students should check with the appropriate office to determine the time limits for filing. The appeal process is given in the Regents' policy.

#### Costs of On-Campus Services

##### Housing and Dining Services

Students living in University residence halls are required to contract for a meal plan with Dining Services. Room and board rates are the same for in-state and out-of-state students. Occupants may select any meal plan to obtain the number of meals preferred and choose from a variety of room options.

Students who are approved to move out of the residence halls and terminate their meal plan contract will receive a prorated refund based upon the days remaining in the semester less the cancellation fee.

##### Residence Halls

\*Rates subject to change\*

2011-2012 Autumn/Spring Semester room rates in University residence halls are:

	Per Semester
Double Room	\$1,563.00
Single Room	1,780.00
Double as Single	1,882.00
Pantzer Suite	2,199.00
Miller Suite	2,036.00

Rates include \$6.00 per semester social fee.

Early arrival prior to opening day costs an additional \$17.00 per day.

##### Dining Services

Dining Services meal plan prices 2012-2013 academic year.

\*The prices below are subject to approval by the Board of Regents and may change.

Meal Plan	Autumn/Spring Semester
All Campus	\$2,148.00
Food Zoo Plus	\$1,938.00
Food Zoo	\$1,833.00

Students living in residence halls are required to contract for one of the two meal plans. All meal plans are available to off-campus students, faculty and staff.

##### Lewis and Clark Village

Rent is \$431.00 per month per person regardless of which size apartment you are assigned to. Each resident will be responsible for their own rent payment. Residents may choose to pay either by the semester or by the month. Rent includes a furnished apartment with all utilities paid including cable TV. You must make your own arrangements for telephone service.

##### University Villages

\*Rates subject to change\*

University Villages housing is available. An application together with \$20 processing fee should be submitted to University Village Office, Elkhorn Court, Missoula, MT 59801. A \$250 deposit will be required when apartment is assigned.

#### Housing Apartment Rates (monthly)

Craighead and Sisson	Elliot	Toole
(All Utilities paid)	(Tenant pays Heat & Elec.)	(Tenant pays Heat & Elec.)



<b>Studio</b>	\$540.00	\$343.00	\$454.00
<b>1-Bedroom</b>	\$600.00	\$410.00	\$570.00
<b>2-Bedroom</b>	\$722.00	\$507.00	\$690.00
<b>3-Bedroom</b>	\$812.00	\$565.00	\$780.00
<b>4-Bedroom</b>	\$855.00	None	None

**NOTE:** These rates are monthly and effective July 1, 2013 through June 30, 2014. All rates include cable TV, water, garbage, and sewer. Tenants are responsible for telephone service and utilities.

#### Vehicle Registration Fee

[www.umt.edu/publicsafety/Vehicle%20Regulations/Registration.aspx](http://www.umt.edu/publicsafety/Vehicle%20Regulations/Registration.aspx)

All vehicles parking on campus must display current campus vehicle registration between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday year round. Students, staff or faculty may purchase window or hanger decals for \$185.00 per year. Students have the option of purchasing semester decals for \$92.50. Reserved parking is available on a first come, first serve basis for \$555.00 a year. Car pools of three or more commuting drivers may register for \$10.00 per person for the year.

Motorcycles are issued decals at \$35.00 per year. Day passes (all day parking) for \$3.00 per day may be purchased from the Office of Public Safety or the University Center and are valid in all "A" decal required lots only. Hourly pay parking is available for \$1.00 per hour. The above prices are subject to change pending approval by the Board of Regents.

Partial refunds on decal are available only through the 15<sup>th</sup> class day. No refunds will be given on motorcycle, car pool or half semester vehicle registrations.

If a vehicle is sold, transferred or destroyed, the parking decal must be removed and returned to the Office of Public Safety for replacement. There is a \$10 replacement fee for all decals lost, stolen or not returned.

#### Other Campus Services

On campus there are other services provided such as the swimming pool, laundry facilities, locker rental, a full service bookstore, prescription pharmacy, testing programs, etc. The rates charged for these services are too varied to present in this publication. If more information is required concerning these services, contact the department providing the service.

Veterans' Benefits for Education Assistance Under Public Law 95-202 and Public Law 815

For Veteran information visit <http://www.umt.edu/veterans>.

#### Financial Aid

Financial aid services are available from two campus locations: the South Avenue location of the Missoula College (MC), and Financial Aid Station located on the second floor of the Lommasson Center Building in Griz Central. Students specific information including the status of the student's aid application is available in CyberBear at [cyberbear.umt.edu](http://cyberbear.umt.edu). General financial aid information including forms, policies and scholarship information is available at the Financial Aid Office website at <http://www.umt.edu/finaid>.

##### MC students:

##### Enrollment Services-Financial Aid Office

909 South Avenue West

Missoula, MT 59801

(406) 243-7886

Fax (406) 243-7901

<http://www.cte.umt.edu/finaid/>

##### All students:

##### Enrollment Services-Financial Aid

Lommasson Center - Griz Central

Missoula, MT 59812-1254

(406)243-5373

Fax (406) 243-4930

<http://www.umt.edu/finaid/>

Both offices are fully accessible.

Notice: Any policy is subject to change without advance notice if required by federal or state law, Board of Regents, or Enrollment Services-Financial Aid Office.

#### Acceptance to UM

Students must be accepted for admission (or readmission) to the University in a degree seeking program before financial aid requests are considered. Students accepted into non-degree categories are not eligible for any financial aid.

#### Presidential Leadership Scholarships

This award is open to incoming freshmen who have demonstrated high academic achievements, leadership and promise for success through their high school experiences. The award is renewable for four years based on meeting eligibility requirements. Further information is available beginning October 1st. The application is available from Enrollment Services-Admissions, the Davidson Honors College, and high school counselors in Montana. The application is also available on-line at <http://www.umt.edu>. The application deadline is December 31.

#### Campus-Wide Scholarships

The University offers a campus-wide scholarship program. Students should apply each year as most scholarships are awarded on an annual basis. Students holding a UM General renewable scholarship will have their awards automatically renewed if they continue to meet the eligibility criteria so need not submit an application again in subsequent years..

Requests for applications for continuing UM students, beginning November 1st, may be directed to the Enrollment Services-Financial Aid Office. The application is also located on line at <http://www.umt.edu/finaid>. The filing deadline is February 1. Students are notified in March.

New, incoming students who have applied for admission to UM by December 31 will be considered for any scholarships that may be applicable. Notification will be done in March.

The Western Undergraduate Exchange (WUE) scholarship may be available for applicants from participating states. Application for a WUE scholarship is accomplished by applying for admissions to UM. Contact Enrollment Services-Admissions for further information.

#### Departmental Scholarships

Many departments, including the Missoula College, offer scholarships based on skill or academic potential. Students should contact their major departments for deadlines and more information.

#### Financial Aid Application

All students who wish to receive any federal funds, including federal parent loans, need based or most non-need based assistance, must file the Free Application for Federal Student Aid (FAFSA). The application is available at <http://www.fafsa.ed.gov/>. Students whose FAFSAs are received and processed by the Department of Education by February 15, and who complete all other documentation requirements are given priority for limited funds. Those who complete requirements later are considered only for federal loan programs and federal Pell Grants.

#### Determination of Eligibility

Eligibility for need-based financial aid is determined by subtracting the Expected Family Contribution (as determined from filing the FAFSA), scholarships, and other educational assistance from private or public agencies from the Cost of Attendance.

#### Financial Aid Package

Packages of need-based aid can include a combination of grants, loans and work-study. Students using the FAFSA automatically apply for all possibilities with one application. The types of aid offered will include federal subsidized and unsubsidized student loans for graduate or undergraduate students and federal Pell Grants for undergraduates if qualified. For those who file the FAFSA early and complete all requirements for additional documentation promptly, additional campus aid will be considered. This aid includes federal and state grants for undergraduate students. Federal Perkins loans and either federal or state work study will be considered for all early filers for both degree-seeking undergraduates and graduate students.

Non-need based aid, in the form of unsubsidized federal loans, for students and parents of dependent students will be considered for those families who file the FAFSA and accept these loans.

#### Distribution of Aid

All financial aid is awarded by the Enrollment Services-Financial Aid Office and distributed through Business Services, usually by crediting aid to the student's account. Aid is disbursed beginning the week before classes to students who have accepted their aid, submitted all required documents weeks in advance of the date and have finalized their registration in Cyberbear. Loans may be

canceled under certain conditions if the student no longer desires the debt. Students who are offered work study must obtain employment and complete additional paperwork at the Enrollment Services-Financial Aid Office. Students who work are paid bi-weekly based on the timecard submitted by students and the supervisors.

#### Additional Requirements for Loans

In order to meet federal requirements, students who receive a federal student loan at The University of Montana must complete an entrance interview requirement and sign a promissory note before a loan will be disbursed. Instructions for entrance and exit counseling and the promissory notes are available on the Enrollment Services-Financial Aid page of the website for The University of Montana-Missoula, at <http://www.umt.edu/finaid>. Select the "Loans" link.

#### Study Abroad and Financial Aid

Students who desire to study abroad and who enroll in courses that are approved by The University of Montana should contact the Enrollment Services-Financial Aid Office. Instructions will be provided for using financial aid with this type of study.

#### Other Requirements and Guidelines for Retaining Financial Aid

Financial aid for full-time is based on maintaining a minimum of twelve (12) credits each term.

Students enrolled for less than full-time may receive financial aid. Most grants will be pro-rated based on credit load. Loans are not pro-rated but require a minimum of six credits.

Students enrolling for fewer than six credits are not considered for financial aid with two exceptions; (1) undergraduates who are seeking their first degree may be eligible for a reduced federal Pell Grant, and (2) tuition waivers may be available for those who qualify.

Students can only receive aid for credits that are required for their degree programs. If a student chooses to repeat a course for which they previously received a passing grade that course can only be counted toward their aid enrollment status one more time.

#### Employment

The Enrollment Services-Financial Aid Office coordinates federal and state work study programs. Open positions are posted on the electronic job board located at <http://www.umt.edu/studentjobs>.

Non-work study student employment positions are also posted electronically at <http://www.umt.edu/studentjobs>.

#### Satisfactory Progress

Any student receiving financial aid is required to make satisfactory academic progress in a program leading to a degree. Students must maintain a minimum cumulative grade point average (GPA) and complete a minimum of 70% of all credits attempted. The minimum GPA for undergraduate, Law and Pharmacy students is a 2.0. Physical Therapy doctoral students need to maintain at least a 2.5 GPS. Graduate students need to maintain at least a 3.0 GPA.

A student must also be able to complete their degree within 150% of the length of their program measured in credits attempted. For instance, a student pursuing a 120 credit bachelor's degree would need to complete their degree prior to attempting 180 credits.

Complete information is available in the Enrollment Services-Financial Aid Office or at [www.umt.edu/finaid](http://www.umt.edu/finaid). Select the "Maintaining eligibility" link.

#### Short Term Loans

Limited short term loan money may be available to registered students who are eligible and submit complete applications. Among other conditions the student must have pending financial aid that will result in a refund to the student to qualify for the loan.

#### Tuition Waivers

The Montana Board of Regents has authorized the waiver of tuition for certain categories of students. Applications for any of the tuition waivers listed must be made in writing to the Enrollment Services-Financial Aid Office. The request must be made prior to the start of the semester in which students expect the waiver.

Minimum academic standards are necessary to receive tuition waivers. Other requirements and limitations may apply. Contact the Enrollment Services-Financial Aid Office for application forms or more information.

#### Montana Veterans Tuition Waiver

- . bonafide resident of the State of Montana for fee purposes
- . Honorable Discharge
- . at one time qualified for veterans benefits under Title 38 of the U.S. Code, but are no longer eligible

- served during a time of war as determined by the Attorney General (World War II, 12-7-41 to 9-2-45; Korean War, 6-22-50 to 1-31-55; Vietnam War, 1-1-64 to 5-7-75; or post-Vietnam world conflicts under certain conditions. Contact the Enrollment Services-Financial Aid Office for further information.)

#### American Indian Student Tuition Waivers

- resident of the State of Montana for one year immediately prior to enrollment at The University of Montana-Missoula
- documentation proving at least one-quarter degree blood
- meet admissions guidelines of the University
- must have financial need as determined by the Enrollment Services-Financial Aid Office
- meet satisfactory academic progress according to the standards of the Enrollment Services-Financial Aid Office

#### Senior Citizens Tuition Waiver

- permanent resident of the State of Montana
- 65 years of age or older

#### University of Montana Employees

- instate resident
- employed at least three-quarter time on the date of registration and for the entire semester
- must be after probationary employment period
- approval from department head & Human Resources every semester

#### Montana University System Honors Scholarship

- awarded by Board of Regents to top graduating high school seniors in Montana
- student must submit form received from the Regents to The University of Montana Enrollment Services-Financial Aid Office for activation of this waiver.

#### Other

There are several other tuition waivers including war orphans, MUS employees' families, surviving dependents of a Montana National Guard Member, and surviving spouse or children of any Montana firefighter or peace officer killed in the line of duty. Contact the Enrollment Services-Financial Aid Office for details.

#### Department of Military Science

All students are afforded the opportunity to apply for two, three and four year scholarships provided by Army ROTC. The scholarships pay for all mandatory tuition and fees, a monthly stipend and \$450.00 per semester for books. The monthly stipend for scholarship students is \$300.00 in the freshman year; \$350.00 in the sophomore year; \$450.00 in the junior year and \$500.00 in the senior year.

Additional financial assistance opportunities are provided to students that are interested in joining the U.S. Army Reserve or the Montana State National Guard. These programs are referred to as the Simultaneous Membership Program, since the student is involved in the National Guard or Reserves at the same time they are involved in ROTC. These programs have financial benefits that range from \$15,000 for a two year program to \$50,000 for a four year program. These benefits are very complex and are best understood by stopping in to visit with the Military Science Enrollment Officer.

Students have the opportunity to enroll in both the basic and advance courses offered by the Department of Military Science in the College of Arts and Sciences. The Basic Course is simply the Freshman and sophomore level courses offered by Army ROTC Instructors and no financial benefits are received for enrolling unless the student is on a scholarship. The Advanced Course refers to our junior and senior level courses. All advanced course students are contracted and receive financial benefits. We welcome student involvement in Land Navigation and Drill and Conditioning courses but no benefits are provided for enrollment in these classes.

#### Organizations

##### Alumni Association

The University of Montana Alumni Association, established in 1901 by Eloise Knowles, represents over 85,000 graduates, former students and friends across the world. The mission of the Association, with offices in Brantly Hall, is to "identify and serve the needs of this University, its alumni, students and friends." The Alumni Association sponsors and helps coordinate Homecoming, Charter Day, Distinguished Alumni Awards, Senior Recognition Day, Scholarships, Internships and Commencement Reunions. The Association also co-sponsors with Career Services the Ask-An-Alum program, which connects alumni with currently enrolled students who are exploring career options. Visit their website at [www.grizalum.com](http://www.grizalum.com) for more information.

##### Associated Students of the University of Montana (ASUM)

Associated Students of University of Montana (ASUM) Student Government

[www.umt.edu/asum](http://www.umt.edu/asum)

The Associated Students of University of Montana is the representative body for students to voice their comments and concerns, create new programs, volunteer on committees and fund student groups on campus. As the voice for UM students, the ASUM Senate meets weekly to discuss important topics affecting students.. ASUM offers a great many services to students that have paid the student activity fee. For more information, please contact ASUM at 243-2451, [www.umt.edu/asum](http://www.umt.edu/asum) or stop by the ASUM office at UC105.

#### **ASUM Child Care Preschool and Family Resources**

[www.umt.edu/asum/childcare/](http://www.umt.edu/asum/childcare/)

The ASUM Childcare Preschool and Family Resources operates five Child Care and early education centers. Child Care is available to students, faculty and staff. The centers are open for children 18 months --6 years. The program provides referrals to private residences providing child care for children ages new born to 12 year as well as a variety of family resources. For more information, please contact us at 243-2542, [www.umt.edu/asum/childcare](http://www.umt.edu/asum/childcare) or stop by the Child Care office at UC119.

#### **ASUM Legal Services.**

[www.umt.edu/asum/legalservices](http://www.umt.edu/asum/legalservices)

ASUM Legal Services provide limited, low-cost legal services to activity fee paying students at The University of Montana/COT. For more information, please contact us at 243-6213, [www.umt.edu/asum/legalservices](http://www.umt.edu/asum/legalservices) or stop by ASUM Legal at UC112.

#### **ASUM Off-Campus Renter Center**

[www.umt.edu/rentercenter](http://www.umt.edu/rentercenter)

The Renter Center provides counseling for student renters experiencing issues with their landlord, encourages positive neighborhood relationships, assists students with finding housing, and advocates for renters. Additionally, the agency maintains the Off-Campus Housing Finder located on the agency website. For more information, please contact us at 243-2017, [www.umt.edu/rentercenter](http://www.umt.edu/rentercenter) or stop by the Off-Campus Renter Center at UC105.

#### **ASUM Transportation**

[www.umt.edu/asum/ot](http://www.umt.edu/asum/ot)

#### **Transportation**

Getting to campus and finding a parking place can be challenging, so why not explore other ways of commuting. The ASUM Office of Transportation has 3 different park n ride shuttles and one late night bus. Service from south/Higgins area is every 5-10 minutes; service from E. Broadway is every 10 minutes and from the Missoula College is every 15-20 minutes. You can park free and take the shuttle free. It gets you close to your destination on campus – closer than if you drive and park. Service starts at 7:25 each day and ends between 6:20 and 7:05 depending on which shuttle you take. Schedules are on line at [www.umt.edu/asum/ot](http://www.umt.edu/asum/ot) or are available at many places on campus or on the bus. The late night bus runs from 7:05 p.m. until 2:30 a.m. on Thursday, Friday and Saturday and until midnight on Monday, Tuesday and Wednesday.

More options for hassle-free commuting are Mountain Line (free with your Griz card), 2 bike check out programs, or interest free bike loans.

Stop by UC 114 for more information.

#### **KBGA**

[www.kbga.org](http://www.kbga.org)

KBGA College Radio, 89.9 FM, is the student-run, college radio station for The University of Montana. Also available streaming online at [www.kbga.org](http://www.kbga.org), we provide a diverse format of music and talk programming 24 hours a day. We are a non-commercial, educational station, so everyone is welcome to become a DJ. For more information, please contact us at 243-6759, [www.kbga.org](http://www.kbga.org) or stop by the KBGA office at UC208.

#### **Montana Kaimin**

[www.montanakaimin.com](http://www.montanakaimin.com)

The Montana Kaimin is the University's student-run newspaper. Published since 1899, it has worked hard to serve, entertain and inform students with issues that are important to them. Publication begins the first week of school and is printed Tuesday – Friday during fall and spring semesters. Check out on our website for more information and past editions. For more information, please contact us at 243-6646, [www.montanakaimin.com](http://www.montanakaimin.com) or stop by the Kaimin's office at the Don Anderson Hall 207.

#### **UM Productions**

[www.umproductions.org](http://www.umproductions.org)

UM Productions is a student-run/student-funded organization whose goal is to bring quality events to The University of Montana and the

Missoula community. UM Productions strives to provide students with hands-on experiences and employment opportunities and bring concerts and events that are focused on diversity with a strong dedication to the arts. Check out our website for upcoming events and job opportunities. For more information please contact us at 243-4981, [www.umproductions.org](http://www.umproductions.org) or stop by the office at UC104.

#### Student Political Action Office

[http://life.umt.edu/asum/asum\\_agencies/political\\_action.php](http://life.umt.edu/asum/asum_agencies/political_action.php)

The Student Political Action office is a resource for students who have a desire to participate in the political process at the local, state and federal levels. Through a student committee, the SPA office works with students through a committee to represent student interests by working with City Council, the State Legislature and the Montana Delegation. For more information, please contact us at 243-2451, or stop by the ASUM office UC105.

#### ASUM Student Resolution Officer

[www.umt.edu/asum/](http://www.umt.edu/asum/)

The Student Resolution Officer is your representative for handling student complaints against a faculty member or university administrator that cannot be resolved informally. The Student Resolution Office advocates for students in a three-step dispute resolution process. For more information, please contact the Resolution Officer at 243-5431, [asum.resolutionoff@mso.umt.edu](mailto:asum.resolutionoff@mso.umt.edu) or stop by the ASUM office at UC 105.

#### ASUM Student Clubs and Organizations

[www.umt.edu/asum/](http://www.umt.edu/asum/)

ASUM recognizes and offers funding for over 200 student organizations and special interest clubs. Find out about a student group that interests you and the many benefits student groups receive by checking out our website [www.umt.edu/asum/studentgroups](http://www.umt.edu/asum/studentgroups) or stopping by the ASUM office at UC 105.

#### Fraternities and Sororities

The Greek Community of The University of Montana provides a comprehensive educational, social, and living experience for members through the promotion of friendship, leadership, personal development, academics, and services to the University and the Missoula community. The Greek members donate their time and support to over 50 recognized philanthropies. Additionally, they involve themselves in a wide variety of campus leadership organizations, such as Residence Life Staff, PRO's, ASUM Senate, Advocates, Peer Advising, and Mortar Board.

The Greek system has six (6) national fraternities (Sigma Alpha Epsilon, Sigma Chi, Sigma Nu, Kappa Sigma and Sigma Phi Epsilon) and four national sororities (Alpha Phi, Delta Gamma, Kappa Alpha Theta and Kappa Kappa Gamma). Information about Greeks can be obtained in the Office of Greek Life (UC 209B) or by visiting <http://life.umt.edu/greeklife/> or calling 243-2005.

#### Community Services

##### Bureau of Business and Economic Research

The Bureau of Business and Economic Research has been providing information about Montana's state and local economies for over 60 years and is proud to be the most comprehensive economic analysis center in the state.

House on the campus of The University of Montana-Missoula, the Bureau is the research and public service branch of the School of Business Administration. On an ongoing basis, the Bureau:

- . analyzes local, state, and national economies
- . provides annual income, employment and population forecasts
- . conducts extensive research on forest products, manufacturing, health care and Montana Kids Count
- . designs and conducts comprehensive survey research at its on-site call center
- . presents annual economic outlook seminars in cities throughout Montana
- . publishes the award-winning Montana Business Quarterly

##### Montana Cooperative Wildlife Research Unit

The Unit investigates basic and applied problems in wildlife ecology and management. Graduate students majoring in Wildlife Biology or Biological Sciences, conduct much of the research supported through the Unit by USGS-Biological Resources Division, Montana Fish, Wildlife and Parks, and numerous other agencies and groups.

##### Montana Campus Compact

The University of Montana is a member in good standing of The Montana Campus Compact. MTCC is a statewide coalition of college presidents and chancellors committed to renewing the public purposes of higher education by promoting campus-community collaborations and civic engagement activities. Since 1993, these campus leaders have represented two-and four-year, public, private,

religiously affiliated, community, and tribal colleges across Montana. MTCC supports and encourages activities such as volunteering, community service, and service-learning through its programs, which include:

- . MTCC Campus Corps
- . Service-Learning Workshops and Faculty Development
- . MTCC VISTA Project
- . Compact Service Corps
- . Montana Athletes in Service Award
- . Careers in the Common Good Scholarships

For more information regarding MTCC member benefits and services, please contact the MTCC headquarters office at (406) 243-5177 or online at [www.mtcompact.org](http://www.mtcompact.org). For MTCC services at UM, please contact the Office for Civic Engagement at (406) 243-5531 or see their listing under The Office For Civic Engagement.

#### The Office for Civic Engagement

The Office for Civic Engagement (OCE) is honored to serve as The University of Montana's primary agent of community activism and civic responsibility. It is our mission to challenge and improve lives with an ethic of service and community investment. We accomplish this by building partnerships that strengthen both the university community and a variety of nonprofit interests; empowering individuals and organizations to enhance capacity for strategic growth, program exposure, skill development and collaborations; and, enhancing professional, academic, and personal experiences through volunteerism and service learning. The OCE is a unit of the Davidson Honors College and operates as an affiliate of the statewide Montana Campus Compact (MTCC) organization (see separate listing). The OCE is located in the Davidson Honors College, room 015, (406) 243-5531 or [www.dhc.umt.edu/oce/humanics.html](http://www.dhc.umt.edu/oce/humanics.html).

#### OCE Programs:

- . **Student Volunteer Programs** - Throughout the school year, OCE coordinates several community service programs for students to get actively involved in the community including Service Saturdays, K-12 Tutor Programs, Alternative Breaks, Adopt-A-Family and more.
- . **AmeriCorps & AmeriCorps\* VISTA** - The OCE provides students with the opportunity to engage in national service while attending the University.
- . **Nonprofit Administration Programs** - The OCE facilitates the Minor in Nonprofit Administration and the Nonprofit Leadership Alliance national certificate program in nonprofit administration. Both are degree enhancement programs designed to assist students to achieve skills and abilities in preparation for careers in the nonprofit sector. The OCE also coordinates the Online Professional Certificate Program in Nonprofit Administration, a series of short courses designed for busy professionals who want to hone their skills in specific areas such as grant writing, financial management and fund raising.
- . **Service Learning** - Service learning is an innovative method of teaching and learning in which students, faculty and community partners work together to enhance student learning by applying academic knowledge in a community-based setting. The OCE works with faculty and departments to create meaningful service learning partnerships with community organizations and attain service learning designation status for their courses. Students can search for these courses using the service learning attribute in CyberBear

#### Nonprofit Leadership Alliance

The University of Montana is an affiliate of the national Nonprofit Leadership Alliance (NLA). The NLA program at UM is designed to be a degree enhancement certification program that complements a student's major. The program provides students with academic and extra-curricular opportunities to gain skills and abilities in preparation for professional careers in the nonprofit sector. All Nonprofit Leadership Alliance students acquire knowledge and skills in general nonprofit management, fund-raising principles and practices, board committee development, program planning, and grant writing. Upon completion of the NLA requirements, students receive the Certified Nonprofit Professional credential. The Office for Civic Engagement operates the Nonprofit Leadership Alliance program in addition to the minor in non-profit administration. For more information contact (406) 243-5159 or browse the website at [www.dhc.umt.edu/oce/humanics.html](http://www.dhc.umt.edu/oce/humanics.html)

Use the links at the lower left to navigate to pages featuring various University of Montanan services and organizations, detailed information regarding expenses, and more..

#### Facilities

##### Information Technology

Information Technology (IT) is a campus service organization that provides computing and communication resources in support of the instructional, research, administrative, and public service activities of The University of Montana. IT maintains and operates complex information systems to support the University's administrative activities and offers a variety of technology support services to assist the University in using the resources and services that IT is responsible for providing. The IT organization consists of the following areas: Campus Computing, Network, Directory and Telecommunication Services, Enterprise Information Systems, and Technology Support

## Services.

IT Technology Support Services serves as the user interface for the IT organization and includes: IT Central, the designated initial point of contact for all user issues; three general access student computer labs; numerous free, non-credit short courses for faculty, staff, and students; multimedia classroom support and audio visual equipment rentals; and support of The University of Montana's public web presence.

Additional information about IT services and facilities may be obtained at the IT website: <http://www.umt.edu/it> or by contacting IT Central at 243-HELP (x4357).

## Montana Forest and Conservation Experiment Station

The Montana Forest and Conservation Experiment Station was established by the Montana Legislature in 1937 and is devoted to scientific investigation of natural resource problems. The station serves as a research unit of The Montana University System with the Dean of the College of Forestry and Conservation functioning as station director. The station seeks, through its research; demonstration; and outreach, to enhance public understanding of forestry and conservation and to contribute to responsible management of Montana's natural resources.

## The Shafizadeh Rocky Mountain Center for Wood and Carbohydrate Chemistry

The Center is a research facility in the Department of Chemistry and Biochemistry specializing in development of new chemical products from carbohydrates (monosaccharides to polysaccharide) found in grains and wood. Targeted applications include consumer products and environmentally-safe industrial products such as biodegradable synthetic polymers, pharmaceutical components, and materials for industrial processing.

## Stella Duncan Memorial Research Institute

The Institute was created initially by a bequest from an alumna of the University; her original interest was in the causes and treatment of bronchial asthma. Asthma is intimately associated with immune response, which involves Somatic Hypermutation. Our work focuses on the *in vivo* mechanism of mutagenesis associated with Somatic Hypermutation, in the tumor suppressor gene *p53*, responsible for about half of human cancers, and in other mutable systems. We have recently published a manuscript on this mechanism in the journal, *Carcinogenesis*. Our basic research in this area has led to a deeper understanding of the immune response, which could open the way for new treatments that counteract or modify hypersensitive responses occurring in allergic asthma.

## Institute for Tourism and Recreation Research

The Institute was created by the Montana University System Board of Regents in June 1987 to conduct the travel research authorized by the 1987 Legislature. The Institute is the research arm for Montana's travel and recreation industry; its mission is to conduct research that will strengthen the travel component of the state's economy.

## Wilderness Institute

The Institute seeks to encourage and support teaching, research and outreach programs focusing on wilderness. The Institute administers the Wilderness and Civilization program of interdisciplinary undergraduate education, a program leading to the Wilderness Studies minor (see the School of Forestry).

## University of Montana Privacy and Release of Student Education Records

The Family Educational Rights and Privacy Act of 1974 (FERPA), as amended, and Montana law, set forth requirements designed to protect the privacy of student educational records. These laws govern access to records maintained by the Montana University System (MUS) and the release of information from those records. A notice to students that explains the rights of students with respect to records maintained by the University of Montana (UM) is provided yearly via the UM Catalog, as well at the beginning of each semester via students' official campus email addresses. It also outlines UM's procedures adopted to comply with these legal requirements. Copies of these laws, including the implementing Federal Regulations pursuant to FERPA, and this notice are available for persons to examine in the Registrar's Office, Emma Lommasson Center, Room 201, 32 Campus Drive, Missoula, MT 59812.

*\*See 3 January 2012 special notice from the U.S. Department of Education at the bottom of this page.*

## Definitions

### I Education Record

A. The meaning of "education record" is, with certain exemptions as listed below, those records, files, documents, and other materials which contain information directly related to a student, and are maintained by any UM employee or agent.. The following categories of information are exempted and are not considered to be "education records:"



- a. Records made by UM personnel which are in the sole possession of the maker and are not accessible or revealed to any other person.
  - b. Records maintained by the Office of Public Safety for law enforcement purposes.
  - c. Medical and counseling records used solely for treatment.
  - d. Records only related to a former student (alumni records). Records of that individual while a student continue to be considered education records.
- B. All records pertaining to students which are maintained by UM offices are official UM records, and as such, remain UM property.
- C. The UM Registrar's Office maintains a record of requests and disclosures of student record information except when the request is from the student whose records are requested, a UM official with a legitimate educational interest, someone requesting directory information, or related to a request from a third party with prior student consent to release the requested information. Students have the right to review this record of requests and disclosures of student record information.

#### Policy Details

##### I Right to Inspect and Review

Students have the right to inspect and review all of their education records, except the following:

1. Financial records of parents.
2. Confidential letters and statements of recommendation placed in education records prior to January 1, 1975.
3. Confidential letters and statements of recommendations for admission, employment, or honorary recognition placed in education records after January 1, 1975, for which students have waived their right of access.

##### II Waiver of Rights of Access

Students may waive their right of access to confidential letters and statements of recommendation. Even if a student

signs a waiver, upon request, the names of all persons making confidential recommendations will be made available to the student..UM employees or agents may not require a student to waive right of access for receipt of UM benefits or services.

##### III Procedures for Inspection and Review

- A. Requests to review records must be made separately, in writing, to each office maintaining records. That office has 45 days to respond to requests to review and inspect. However, arrangements to grant such requests will be made as expeditiously as possible.
- B. Information contained in education records will be fully explained and interpreted to students by university personnel assigned to, and designated by, the appropriate office.
- C. Students have the right to review only their own records. When a record contains information about more than one student, disclosure cannot include information regarding any other student.

##### IV Right to Challenge Information in Records

- A. Students have a right to challenge the content of their education records if they consider the information contained therein to be inaccurate, misleading, or inappropriate.
- B. This process includes an opportunity for amendment of the records or insertion of written explanations by the student into such records.
- C. The right to challenge does not apply to grades unless the grade assigned was inaccurately recorded, under which condition the record will be corrected.

##### V Procedures for Hearing to Challenge Records

- A. Students challenging information in their records must submit, in writing, a request for a hearing to the appropriate office maintaining the record, listing the specific information in question and the reasons for the challenge.
- B. Hearings will be conducted by a university official with no interest in the outcome of the hearing.
- C. Students shall be afforded a full and fair opportunity to present evidence relevant to the reasons for the challenge, as referenced in Section IV above.
- D. The hearing officer will render a decision, in writing, noting the reason and summarizing all evidence presented within a reasonable

period of time after the challenge is filed.

E. Should the hearing decision favor the student, the record will be amended accordingly. Should the request be denied, an appeal may be made, in writing, and submitted to the UM Registrar within 10 days of the student's notification of the decision of the hearing officer. The appeal shall be heard by an Appeals Board of three disinterested senior university officials and a decision rendered, in writing, within a reasonable period of time.

F. Should the appeal decision favor the student, the record shall be amended accordingly. Should the request be denied, the student may choose to place a statement with the record commenting on the accuracy of the information in the record and/or setting forth any basis for inaccuracy. When disclosed to an authorized party, the record will always include the student's statement and notice of the Board's decision, as long as the student's record is maintained by UM.

#### VI Consent for Release Required

Consent must be obtained from a student for the release of information from education records, specifying what is to be released, the reasons for release, and to whom, with a copy of the record sent to the student if he or she desires.

#### VII Release Without Consent

A. The requirement for consent does not apply to the following:

1. Requests from UM faculty, staff and agents who have a legitimate education interest on a "need to know" basis, including UM student employees, if necessary to conduct official business as authorized by the Registrar. Legitimate educational interest includes performing a task related to the regular duties of the employee or agent, the student's education, the discipline of a student, a service or benefit for the student, or maintaining safety and security of the campus.
2. Requests in compliance with a lawful subpoena or judicial order.
3. Requests in connection with a student's application for or receipt of financial aid.
4. Requests by state authorities and agencies specifically exempted from the prior consent requirements to the extent permitted by law - organizations conducting studies on behalf of UM, if such studies do not permit the personal identification of students to any persons other than to representatives of such organizations and if the personal identification data is destroyed when no longer needed. *\*See additional information at the bottom of this page.*
5. Information submitted to accrediting organizations.
6. In the case of emergencies, UM may release information from education records to appropriate persons in connection with an emergency, if the knowledge of such information is necessary to protect the health or safety of a student or other persons.
7. To authorized federal officials who have need to audit and evaluate federally-supported programs. *\*See additional information at the bottom of this page.*
8. To the extent otherwise permitted by law, the results of any disciplinary proceeding conducted by UM against an alleged perpetrator of a crime of violence to the alleged victim of that crime.
9. Requests for directory information (see item VIII).

B. UM reserves the right to verify the accuracy of any information contained in what purports to be an official university document (e.g. a transcript or diploma) or is provided to a third party. In addition, degrees (any honors, majors, minors and specializations) are treated as directory information as noted in VIII below, since they are conferred in a public ceremony.

#### VIII Directory Information

A. UM has designated the following information about students as public (directory) information, which may be released to the public subject to VIII B below:

1. Student name
2. Addresses (including campus e-mail address)
3. Telephone number
4. Major field of study
5. Dates of attendance
6. Full-Time/Part-Time Status
7. Date of graduation and degree(s) received
8. School or College
9. Major(s)

## 10. Class

## 11. Academic awards or honors

## 12. Student photograph and video images

## 13. Electronic Personal Identifier (e.g. NETID)

14. Any other UM student records information students have publicly disclosed about themselves regarding their University of Montana educational activities.

B. Students have the right to have the above directory information withheld from the public if they so desire. Each student who wants all directory information to be withheld (including items to be published in the Student Directory) shall so indicate by completing a *UM Confidentiality Request Form* which can be obtained from the Registrar's Office website at [www.umt.edu/registrar](http://www.umt.edu/registrar) At least three days should be allowed for processing.

C. UM receives many inquiries for directory information from a variety of sources, including friends, parents, relatives, prospective employers, other institutions of higher education, honor societies, licensing agencies, government agencies, and the news media. Each student is advised to carefully consider the consequences of a decision to withhold directory information. UM, in all good faith, will not release directory information requested to be withheld, and any requests from persons or organizations outside UM will be refused unless the student provides written consent for the release.

D. UM publishes certain student directory information on the web via the UM Online Directory. This public information contains name, email address, and phone number. A student must notify the Registrar's Office pursuant to VIII B above to keep directory information from being made public.

## IX Complaints, Concerns or Suggestions

Students who believe that the institution has not fully honored their privacy rights under FERPA may file a written complaint with the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave. SW, Washington, DC 20202-4605. The Family Policy Compliance Office investigates each timely complaint to determine whether the educational agency or institution has failed to comply with the provisions of FERPA. A timely complaint is defined as an allegation that is submitted within 180 days of the date of the alleged violation or of the date that the complainant knew or reasonably should have known of the alleged violation.

## Procedure

## I Type, Location, and Custodian of Student Records

UM does not maintain education records in one central office. Education records are maintained in the respective colleges and schools (including placement offices as applicable), the Graduate School, and the Registrar's Office. Other education records are maintained in the Enrollment Services Office (Admissions) (for newly enrolled students until the sixth week of attendance -- applicants are excluded), Office of The Vice-President for Student Affairs (disciplinary records), Financial Aid Office (financial and related information, student employment), Athletic Department (intercollegiate sports), International Students Office, Office of the Provost/Vice-President for Academic Affairs (academic misconduct) and other offices. Questions regarding individual student records may be addressed to either the UM Registrar or the appropriate office. . .

## Resources

U. S. Department of Education, 1-800-872-5327

<http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

Montana Code Annotated (MCA) Title 20, Chapter 25, Part 5.

## \*FERPA Annual Notice to Reflect Possible Federal and State Data Collection and Use

As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records — including your Social Security Number, grades, or other private information — may be accessed without your consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to your records and PII without your consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases even when we object to or do not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State

Authorities may collect, compile, permanently retain, and share without your consent PII from your education records, and they may track your participation in education and other programs by linking such PII to other personal information about you that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

## Student Rights

### Public Safety Report and Alcohol and Drug Guidelines

The health and safety of students, faculty, staff, and visitors are of paramount concern to The University of Montana. Each year the University publishes an annual report outlining on-campus security and safety information and crime statistics. The report provides important information for security awareness and crime prevention programs, emergency procedures and reporting crimes, plus law enforcement and safety services on campus.

Additionally, the booklet contains the University's policy on sexual assault and information about support services for victims of sexual assault. The booklet also includes information about the University's drug and alcohol policy, programs and support services for substance abuse, and risk management guidelines for University-related events.

The booklet is available by writing or calling the Office of Public Safety (406) 342-6131 or the Office of the Vice President for Student Affairs (406) 243-5225, The University of Montana, Missoula, MT 59812. The information can also be accessed on the web at:

[www.umt.edu/studentaffairs/](http://www.umt.edu/studentaffairs/) and [www.umt.edu/publicsafety/](http://www.umt.edu/publicsafety/).

### Student Complaint Procedures

Under the terms of the Collective Bargaining Agreement between The University of Montana University Faculty Association and The Montana University System, there is a formal procedure for students who have a complaint against a faculty member or an administrator. Information about this procedure is available at [http://life.umt.edu/vpsa/student\\_grievance.php](http://life.umt.edu/vpsa/student_grievance.php) on page 113 under 21.000. The ASUM Student Resolution Officer is available to answer questions about procedures and to assist with the process. Time restrictions are important, so students should review procedures immediately if they feel they may have complaints. The Resolution Officer receives voice mail at 243-5431 or email at [asum.resolutionoff@mso.umt.edu](mailto:asum.resolutionoff@mso.umt.edu).

## Student Services

### Housing and Dining Services

#### Residence Halls Community

The University of Montana-Missoula residence halls' community is a part of the University and Missoula communities. The campus is a center for educational, cultural, and social activities. Residing in residence halls places the student at the center of these activities. Our mission is to provide safe, clean, healthy and affordable living and learning facilities that fosters an inclusive community living environment for students, staff, faculty, and guests. Services provided in these facilities support and nurture educational experiences and personal development at The University of Montana. The University houses nearly 2300 students in nine residence halls on campus. The residence halls staff are resource people. Sharing ideas, observations or questions with them will benefit residents. Resident Assistants offer help and resources when students experience problems with University life. The residence hall room rate includes a furnished room with all utilities, use of laundry facilities, internet access and cable TV.

The University of Montana-Missoula requires all freshmen and students who have earned fewer than 30 semester credits to reside in the University's residence halls. Students are required to continue residence hall living until the student earns 30 semester credits. Any student who moves into the residence halls at the beginning of the semester is required to reside in the residence hall for the entire semester. (However, students must be enrolled for at least seven credits to be eligible to live in a residence hall.) Exceptions to residence hall living are made for students who reside with their parents and for students who are married or are single parents. Other exceptions are made under special circumstances on an individual basis. Any student requesting an exception to the residency requirements must submit a request in writing, accompanied by supporting documentation, to the Director of Residence Life. Students are not released from the residency requirements until the student receives an official notification from the Director of Residence Life. Students who have earned 30 semester credits or more are not subject to the residency requirements but are encouraged to live on campus. All students living in the residence halls are required to contract for one of the on-campus meal plans.

Rooms in residence halls are provided in order of application. Freshman students required to live in Residence Halls who submit their residence hall application and \$220.00, which is a \$25 non-refundable processing fee and a \$200 prepayment, by the priority Admission deadline of March 1, will be guaranteed permanent housing assignments. Application forms and information may be obtained on the Residence Life Office website at [www.umt.edu/reslife](http://www.umt.edu/reslife).

A number of rooms have been designed to accommodate students with disabilities. Application for these rooms is made to the Residence Life Office. The Director of Residence Life or the Office of Disability Services for Students, (406) 243-2243, should be contacted to ensure the necessary accommodations are provided or visit our website at [www.umt.edu/reslife](http://www.umt.edu/reslife).

Lewis and Clark Village

**(Upperclass and Graduate Housing)**

Lewis and Clark is a No-Smoking apartment facility designated for single students at the University of Montana without dependents who will have accumulated at least 60 credit hours by the time they move into the apartments. The apartments are located off campus just south of Dornblaser Stadium on South Higgins Avenue. They are within easy walking or biking distance from the University and are adjacent to Park n' Ride which provides free and easy transportation to the UM campus. The apartments are furnished with all utilities paid including cable TV and internet access.

Prospective tenants may submit applications together with a requested roommate(s). If a tenant does not have a roommate preference, the Residence Life Office will assign roommates based on like gender. As space allows we will attempt to take into consideration other preference such as age, smoking, alcohol consumption, and length of agreement.

**How To Apply for Lewis and Clark Village**

Applications are available on the website at [www.umt.edu/reslife](http://www.umt.edu/reslife), by calling in a request to the Residence Life Office at 406-243-2611, or sending an email message to [housing@mso.umt.edu](mailto:housing@mso.umt.edu). Your application must be accompanied by \$320.00, (\$25 which is a non-refundable processing fee and a damage deposit of \$300.00).

A complete set of policies, photos and site map are available on the website at [www.umt.edu/reslife](http://www.umt.edu/reslife).

**Dining Services**

Winner of 22 international dining awards and home to nationally renowned chefs, University Dining Services (UDS) is dedicated to bringing you a variety of delicious, well-balanced meals at reasonable prices. Our extensive selection of dining options include: the Food Zoo, the Cascade Country Store, La Peak, Biz Buzz, Think Tank, Recess, Doc's Sandwiches, Garden City Greens, Soups N Such, Pizza Hut, Wing Street, Famous Dave's BBQ, Ui-Cha! (Vietnamese), Byte Me Burgers, Eson Gib Sushi, Casa Nina and two Jus Chilln' restaurants. All University Dining Services and Jus Chilln' locations accept cash, checks, Visa/Mastercard, UMoney and appropriate meal plans.

The Food Zoo, located in the Lommasson Center, is our buffet style restaurant which features an ever-changing choice of entrees, homemade soups, an extensive salad bar, daily pastas and gourmet pizzas, fresh fruits, Bear Claw Bakery desserts, cooked-to-order specials, and vegetarian and vegan options.

The Cascade Country Store, located at the west end of the Lommasson Center, boasts a bright, food-court style atmosphere with pizzas, Mexican specialties, grilled favorites and a fresh deli. Soups, salads, Bear Claw Bakery pastries, a wide variety of grocery items, organic products, and health and beauty aids are just some of the options available. The expansive outside deck is a popular stop for many students.

La Peak, located in the Cascade Country Store, features Craven's gourmet coffee and espresso drinks, fresh crepes, breakfast sandwiches and Bear Claw Bakery goodies. The lodge-like atmosphere makes La Peak a great place to socialize with friends.

The University Center Food Court, located on the second floor of the University Center, features a contemporary, open atmosphere, and exceptional cuisine. Food choices include Pizza Hut, Garden City Greens, Soups N Such, Ui-Cha! (Vietnamese), Wing Street, Famous Dave's BBQ, Doc's Sandwiches, Eson Gib Sushi and the award winning Casa Nina.

Biz Buzz, located on the lower level of the Gallagher Business Building can help you jump start your day with a fresh cup of Craven's coffee, espresso, or Chai tea. They also serve delicious hot paninis, fresh baked pastries from Bear Claw Bakery, bagels, sandwiches, soups and salads.

The Think Tank, located above the Urey Lecture Hall, offers Liquid Planet gourmet coffee, espresso, Chai tea, Italian soda, ice-cold beverages, and grab and go items like sandwiches, soups, salads, and snacks. Whether you need that morning boost or a lunch on the go, the Think Tank has you covered.

Recess is our newest coffee shop. Located in the Phyllis J. Washington Education Building, Recess offers Liquid Planet gourmet coffee and espresso, Chai teas, bagels, Bear Claw Bakery pastries, sandwiches and Italian sodas. For a satisfying break between classes, stop by Recess.

There are two Jus Chilln' locations on the main campus. One is located on the first floor of the University Center. The other can be found at the Fitness & Recreation. Both restaurants feature Liquid Planet gourmet coffees, smoothies, baked goods and grab and go items. Enjoy delicious soups and sandwiches at the UC location.

**Meal Plans**

To ensure you have healthy and nutritious food options, The University of Montana requires students living in a residence hall to purchase a meal plan. A meal plan is a pre-paid purchase of meals for the entire semester. UM Dining Services offers two meal plans

designed for students living on campus: the ALL CAMPUS and the LOMMASSON PLUS. Each plan provides a Weekly Meal Plan Fund designed to ensure that meals can be purchased for the entire semester. Food purchases are deducted from your Weekly Meal Plan Fund and may be used as quickly or as modestly as you choose. Weekly Meal Plan Funds reset every Sunday morning; unused Weekly Meal Plan Funds are NOT carried forward from one week to the next. For full details, visit [www.life.umt.edu/dining](http://www.life.umt.edu/dining) and click on "Meal Plans" or call 406-243-6325. The ALL CAMPUS Meal Plan provides campus-wide dining flexibility and is accepted at all Dining Services locations. The LOMMASSON PLUS Meal Plan is accepted at the Lommasson Center restaurants (*The Food Zoo, Cascade Country Store*), La Peak, and Jus' Chill'n located in the Campus Fitness and Recreation Center.

A student may convert their meal plan from ALL CAMPUS to the LOMMASSON PLUS Meal Plan only once during the first two weeks of the semester. Upgrades, from the LOMMASSON PLUS Meal Plan to the ALL CAMPUS Meal Plan, are accepted throughout the semester.

The COMMUTER MEAL PLAN is designed for students living off the main campus who want the convenience of pre-purchased campus dining. Open your COMMUTER MEAL PLAN account with as little as \$20.00. For deposits of \$50.00 or more UDS will add a 10% premium to your account. COMMUTER MEAL PLAN funds may be used at any of UDS' 14 restaurants, both Jus' Chill'n locations on the main campus and the College of Technology snack bars. Make additional deposits anytime (\$20 minimum). Payment methods include cash, check, credit card UMoney and Cyberbear/student account (some restrictions apply, call 406-243-6325 for details).

For more information on meal plans and other special dining services, please contact the University Dining Services main office at (406) 243-6325 or visit our web site at [www.life.umt.edu/dining](http://www.life.umt.edu/dining).

#### University Village

The University has 566 apartments for married students, single students with dependents, and students with disabilities who have a live-in care attendant. All apartments are within walking distance of the campus. Units range from studio to four-bedroom apartments.

Eligibility for University Village requires at least one adult member of the household be enrolled for a minimum of seven (7) credits two of the three semesters per year. The student must be registered for at least seven (7) credits the first semester of occupancy. Priority is given to students who are married or otherwise have a legal dependent relationship with another adult; single parents with at least one (1) legal dependent living in the apartment; and single students with disabilities who require a live-in care attendant. Single students may be assigned apartments if other priority applicants do not occupy all available units.

Students residing in University Village must demonstrate satisfactory progress toward an educational degree by earning a minimum sixteen (16) credits per calendar year. After the initial year of residency, satisfactory progress is based upon credits earned during the preceding calendar year. In addition, a student or family with one or more members working toward an educational degree will have priority occupancy for a maximum of six (6) calendar years. Any exception from the above residency policies requires a written request for exception submitted to the University Village Office. The request is not approved until written consent is received from the University Village Office.

Housing is assigned according to the date of application and notification is given approximately twenty (20) days before housing becomes available. All applications must be updated every six (6) months in order for applicants to remain on the assignment list. A \$250.00 deposit must be submitted when an apartment is assigned. The deposit is refundable when the rental agreement is terminated provided the apartment rental fees are current and no damage or cleaning fees are assessed. The deposit is forfeited if the student cancels after accepting the assigned apartment.

Due to the demand for University Village housing, the University Village Housing Office should be contacted early to make reservations and obtain detailed information including an application or visit our website at [www.umt.edu/reslife](http://www.umt.edu/reslife). Applications must be accompanied by a \$25.00 processing fee.

#### Personal Property

The University of Montana-Missoula is not responsible, by state law, for damage to, or theft of, the personal property of students on campus (for example: damage to clothing or a stereo due to fire, smoke or water). Students are encouraged to adequately insure their personal property and to protect their property by locking their room/apartment and car and taking other simple precautions to prevent theft and damage.

#### Career Services

The Office of Career Services assists students in developing viable career objectives, choosing academic majors and creating the plans necessary to achieve those goals. Assistance is also provided to students and UM alumni who wish to modify their career and academic goals to improve their employment options. Career Services provides a wide array of services designed to facilitate the transition from education to employment, including: career counseling and assessments; workshops on such topics as resume writing, interviewing and job search strategies; videotaped mock interviews; on-campus interviews with employers; credential files services for teachers; alumni referral network program, an on-line job vacancy service, and student employment.

Career Services maintains an extensive on-line library of current resources on general and specific career and educational options, resume, interviewing and job search reference materials and employment resources from companies, school districts and government

entities.

A variety of career fairs are hosted each year for the purpose of bringing students and employers together to discuss volunteer, internship, part-time and full-time employment opportunities. The Big Sky Career and the Health Professions Fair are held in the Fall semester. The Educators' Career Fair is open to teaching, administrative and school counseling professionals and is held in the spring semester.

All UM students are eligible to establish a free Griz eRecruiting account which allows students to post their resumes on the web for viewing by and referral to employers, participate in the on-campus recruiting program and view and apply for current job and internship vacancies in the online jobs database.

For additional information, contact the Office of Career Services at 154 Lommasson Center, call (406) 243-2022, e-mail: [careers@mso.umt.edu](mailto:careers@mso.umt.edu) or visit our web site at: [www.umt.edu/career](http://www.umt.edu/career).

#### Student Employment

Student Employment provides the opportunity for students and employers to connect for the purpose of giving students the ability to earn money while attending school. Student Employment offers an online job posting system for employers and an online job search and application process for students. This makes it possible to post jobs for on-campus, off-campus, work-study, non work-study, and volunteer employment. Student Employment works closely with Financial Aid and Student Payroll to assure students are being hired and paid within the established guidelines. Student Employment hosts a free Student Job Fair during the first week of classes every fall. We also coordinate National Student Employment Week and the Student Employee of the Year (SEOTY) Award.

For additional information, contact the office of Student Employment at 154 Lommasson Center, call (406) 243-5627, email [studentjobs@mso.umt.edu](mailto:studentjobs@mso.umt.edu) or visit [www.umt.edu/studentjobs](http://www.umt.edu/studentjobs).

#### Testing Services

The Office of Testing Services is a member of the National College Testing Association and Consortium of College Testing Centers. Testing Services subscribes to the NCTA professional standards and guidelines providing the administration of educational, professional licensing and certification exams. Examples of our services include:

- . National standardized academic admissions exams (ACT, GRE, GMAT, MCAT, LSAT, PCAT, TOEFL, etc.)
- . Professional certification exams (NREMT, PTCE, DANB, MPRE, ACSM, ACE, Microsoft Office, etc.)
- . Information technology certifications (CompTIA, Adobe, Cisco, Novell, Sun Microsystems, etc.)
- . College credit by examination through CLEP and DSST.
- . Proctoring services for UM students, online, and distance learning programs.

For additional information, contact Testing Services at Lommasson Center, Suite 154, call (406) 243-2175, email: [testingservices@umontana.edu](mailto:testingservices@umontana.edu) or visit: [www.umt.edu/career/testing](http://www.umt.edu/career/testing).

#### Internship Services

The University of Montana offers internships in most disciplines. Internships can be part- or full-time, paid or unpaid, and generally run the length of an academic semester. Internships are supervised by key faculty members and allow students to work in positions related to their academic and career goals while utilizing knowledge, theory, and skills learned in the classroom. Learning objectives complemented by faculty-assigned reflective learning projects or reports distinguish and showcase internships as essential educational experiences. Internships are available locally, state-wide, and throughout the nation in various settings, including non-profit agencies, small businesses, multi-national corporations, and city, state, and federal government offices. International internships are also available, many through a partnership with IE3 Global Internships. More detailed information is available at Internship Services, Lommasson Center 154; (406) 243-2815; fax (406)243-5866; or visit the website at: [www.umt.edu/internships](http://www.umt.edu/internships).

#### Disability Services for Students

Students with disabilities can expect access at the University of Montana-Missoula. Wherever possible, the University exceeds mere compliance with the civil rights laws of Section 504 of the Rehabilitation Act, the Americans with Disabilities Act, and the Montana Human Rights Act. The University's programs are readily accessible to and usable by people with disabilities. The campus assures Program access is delivered to the maximum extent feasible and in the most integrated manner possible.

Disability Services for Students, a student affairs office, leads the University's program access efforts for students. Disability Services provides and coordinates reasonable accommodations and advocates for an accessible and hospitable learning environment. We encourage self-determination and self-reliance by students with disabilities. Examples of services include priority registration, physical accessibility arrangements, academic adjustments, auxiliary aids (readers, scribes, sign language interpreters, etc.), alternative testing, conversion of print textbooks to e-text, assistive technology assistance, and other reasonable accommodations. To achieve equal access, Disability Services vigorously pursues the removal of informational, physical, and attitudinal barriers to all University programs. "Expect Access", Disability Services handbook for students, and a campus accessibility map are available at <http://www.umt.edu/disability/>.

Students with disabilities should plan ahead and get in touch with Disability Services prior to arriving on campus. For additional information, contact Disability Services for Students in Lommasson Center 154 or (406) 243-2243 (Voice/Text) or [dss@umontana.edu](mailto:dss@umontana.edu). Please visit the Disability Services homepage to find details on our services at [www.umt.edu/disability/](http://www.umt.edu/disability/).

#### The UM Veterans Education Transition Services (VETS) Office

The University of Montana's Veteran's Office has moved to the new Veterans Education and Transition Services (VETS) location. The VETS Office is located on the Southeast corner of the Mountain Campus at 1000 E. Beckwith Avenue, where Beckwith Ave. becomes Campus Drive. The office serves all UM veterans, including those attending the Missoula College. VETS Office hours are M-F 8 a.m. - 5 p.m.

#### Contact information:

**UM VETS Office**  
**1000 E. Beckwith Avenue**  
[veterans@umontana.edu](mailto:veterans@umontana.edu)  
[www.umt.edu/veterans](http://www.umt.edu/veterans)  
**406-243-2744 Phone**  
**406-243-5444 Fax**

#### Foreign Student and Scholar Services

The office of Foreign Student and Scholar Services (FSSS) assumes responsibility for the general welfare of foreign students at the University of Montana from admission to graduation and practical training. It provides direct support services, consultation, and liaison. The office assists in the reception and orientation of foreign students and helps with their integration into the University and community. It interprets immigration regulations and laws and assists students in maintaining legal status and obtaining benefits related to their visa status. Staff members provide advising for academic and personal concerns, cultural adjustment, financial problems, and other concerns that arise.

The staff works with the International Student Association and other student groups, as well as the Missoula International Friendship Program to sponsor cultural activities, a speaker's bureau, a community hospitality program for students, leadership opportunities for students, and the annual International Culture and Food Festival. FSSS coordinates the UM Global Partner Program, a campus peer-mentoring program. It offers educational fields trips; winter and summer break activities, as well as initial and on-going orientation and educational programs on relevant topics. FSSS manages the campus' International House, an activity center for inter-cultural events. Foreign Student and Scholar Services works closely with other service and advising offices on campus to optimize those services and their visibility to foreign students.

Foreign Student and Scholar Services prepares certificates or petitions for the Exchange visitor J-1 visa and advises foreign scholars who need to change or extend their visa status, travel temporarily out of the United States or bring dependents to this country. Finally, the office serves as liaison to federal agencies dealing with foreign student and scholar concerns, such as the US Citizenship and Immigration Service, Department of Labor, Department of State, Internal Revenue Service and Social Security Administration. For more information visit our website at: [www.umt.edu/fsss/](http://www.umt.edu/fsss/) or contact us at [fsss@umontana.edu](mailto:fsss@umontana.edu).

#### International Programs

The University of Montana's International Programs (IP) promotes international education, research, training and projects at UM through exchanges, grants and self-support. In addition to negotiating university-wide agreements with institutions abroad, IP administers the Partner University Exchange Program with over 58 partner institutions in 26 countries and the International Student Exchange Program (ISEP) with 154 international member institutions in 54 countries. IP also serves as the referral center for UM Faculty Directed Study Abroad programs. For additional information, visit International Programs in the International Center, call (406) 243-2288, email [goabroad@mso.umt.edu](mailto:goabroad@mso.umt.edu) or visit their website at [www.umt.edu/ip](http://www.umt.edu/ip).

Throughout the year IP develops, hosts and conducts training programs, conferences and workshops in a variety of areas for international scholars from various countries. The professional training's include but are not limited to seminars in Educational Policy, Instruction, Educational Leadership, Science Teacher Training, Instructional Technology, American Studies and English as a Second Language. The office also provides support for departments and student groups in the coordination of international events and conferences on campus.

#### English Language Institute

UM offers an intensive English program through the English Language Institute. Students are enrolled in 20 hours of class each week. ELI's curriculum addresses the needs of international students whose scores are below UM language requirement scores of 500 ITP/ 61iBT. . ELI courses also address the needs of students who want to raise their English language proficiency in order to gain admission to a university or college where English is the language of instruction. Through this program, ELI students can begin their university studies at UM in several ways. They can successfully participate in the ELI/ UM Bridge Program, show their academic readiness through



ELI coursework or meet the TOEFL requirements. To find out more about the English Language Institute visit [www.umt.edu/eli](http://www.umt.edu/eli).

#### Curry Health Center

243-2122

Curry Health Center (CHC) provides affordable, accessible, high quality, student-centered health services to University of Montana students to enhance student learning, promote personal health and development and teach important life skills.

Curry Health Center is YOUR campus based health care center, with services designed to meet the needs of college students and the campus community.

#### General Information

The full Curry Health Fee is paid at registration by students who enroll for seven credits or more (excluding distance only students). Students taking less than seven credits per semester may elect to pay the full Curry Health Fee at any time during the semester. The Curry Health Fee is the main source of funding for Curry Health Center, allowing us to provide a wide range of primary health care and health promotion services at discounted rates well below what students would generally find in the Missoula community.

Services in the, Health Enhancement and the Student Assault Resource Center are available to all students. Services in the Medical Clinic, Counseling Center and the Dental Clinic are available only to students who pay the full Curry Health Fee.

We recognize the busy nature of student schedules and seek to provide accessibility for both urgent needs and more routine care via appointments or walk-ins. We are happy to coordinate care with providers "back home" or assist with referral to community resources for problems beyond the scope of CHC.

Medical Services - 406-243-4330

Curry Health Center provides both primary health care services as well as urgent care services to the University of Montana student population.

Our primary care services include:

- . Gynecological Health
  - . PAP smears
  - . Birth control
  - . Colposcopy
  - . Depo-Provera injections travel planning
  - . Immunizations
  - . Allergy shot administration
  - . Management of depression and anxiety
  - . Acne management
  - . Insomnia
  - . Mole checks/mole removals
  - . STD screens
  - . DOT physicals
  - . Sports physicals
  - . Gastroenteritis
  - . Urinary tract infections
  - . Upper respiratory infections
  - . Mild to moderate asthma exacerbations
  - . Migraine headache

#### Sinus infection

Care for minor injuries such as:

- . Simple lacerations that require stitches
- . Splinting or casting of simple fractures
- . Sprains/strains of muscles and joints
- . Mild concussion
- . Wound infections

If you have questions, or wish to schedule an appointment, contact us at 243-4330.

Counseling and Psychological Services - 243-4711

Counseling and Psychological Services (CAPS) provides rapid access and brief therapy for UM students. CAPS also serves the urgent

care needs of students in crisis and facilitates off-campus referral when necessary. All services are confidential. Counseling covers the broad range of personal, academic, relational and social concerns of students. Counseling may help a student solve a personal problem, cope with the transition to university life, enhance family relationships, or improve academic performance. Most services are covered by the Curry Health Fee payment. There are additional charges for some services including psychological evaluations for prolonged counseling and psychotherapy.

Self Over Substance (S.O.S.) - 243-2290

S.O.S. educates and motivates students to address high-risk behaviors associated with heavy alcohol or other drug use. Services include individual and group counseling, education/intervention programs, and assessment/referral to treatment resources. Some services have modest fees.

Dental - 243-5445

Dental care is provided to students who have paid the Curry Health Fee. The Dental Clinic's primary focus is on urgent and preventative care. While urgent care is given priority, routine dental care is also provided as time allows. Charges for dental services are set at a substantially lower rate than the private sector.

#### Services Provided

1. Emergency dental care.
2. Fillings, root canals, simple extractions, crown and bridge procedures (as time permits).
3. Teeth cleaning, periodontal scaling, and oral hygiene instructions.
4. Routine exams and X-rays ('checkups') on a limited basis-one per year.
5. Night guards for TMJ disorders and protection from grinding.

Referrals to specialists or other dentists are provided for students whose dental needs are beyond the scope/capabilities of the clinic, e.g., oral surgery, complex root canals, orthodontics, dentures, etc. Charges incurred at private offices are the student's responsibility.

The Student Insurance plan does not cover dental charges, except for extractions.

Health Enhancement - 243-2809

The Health Enhancement Department of Curry Health Center provides health education and wellness services to students to help them stay safe and healthy, now and in the future. Health Enhancement is also the home of the nationally recognized peer education program Peers Reaching Out (PROs). PROs provide programming on health issues that affect students like healthy sexuality, safer sex, contraception, alcohol poisoning, safe partying, nutrition, and stress management. The CARE program, which provides free condoms through representatives that live in the residence halls and Greek houses, is also part of Health Enhancement. Call us if you would like to be a PRO or a CARE Representative.

Services include: free quit smoking and quit spit tobacco kits, free condoms and safer sex supplies, nutrition information, stress management assistance, and wellness counseling.

Student Assault Recovery Services - 24-Hour Crisis - 243-6559 Office - 243-5244

Student Assault Resource Center (SARC) offers confidential support and advocacy services to victims of rape, sexual assault, child sexual abuse, relationship violence, sexual harassment, and stalking. Services are also available for friends, partners, and relatives of victims. SARC offers a 24-hour crisis line, 243-6559 and a walk-in Resource Center when the University is in session. Trained student Advocates are available 24 hours a day to provide information and advocacy. Other services offered by SARC include support groups, workshops, and training as well as an extensive resource library. There is no charge for SARC services. Professional counseling is available by referral to campus or community resources. SARC is located in the Curry Health Center, room 108. Enter through the east entrance (corner of Maurice St. and Eddy Ave). SARC walk-in hours are 10:00 a.m. to 5:00 p.m., Monday through Friday, when the University is in session.

Health Services Pharmacy - 243-5171

The Health Services Pharmacy, located in the Curry Health Center building, offers students a complete prescription service and accepts many 3rd party insurance plans at very reasonable rates. The pharmacy is operated by the School of Pharmacy in cooperation with Curry Health Center and is used for training pharmacy students under the supervision of registered pharmacists.

Insurance Billing- 243-2844

Because of your privacy rights and concerns, Curry Health Center will not automatically bill your insurance plan for services received at CHC. If you would like to file an insurance claim for services received at Curry Health Center, you must request this through the clinic that you received services from at CHC. CHC will provide a "walkout statement" to you that you can send to your insurance. Because your insurance company reimburses you directly, you are responsible for paying charges incurred at CHC, not your insurance company.

CHC is not a Medicare/Medicaid provider, nor do we accept direct payments from insurance companies.

#### Clinical Psychology Center

The Clinical Psychology Center (CPC) is a training clinic for doctoral students in Clinical Psychology and School Psychology, operated by the Department of Psychology. The CPC offers a wide range of psychological services to the Missoula community (both students and non-students), including: individual, couples, child/family, and group psychotherapy. The CPC also offers psychological testing and evaluation, including comprehensive learning disability evaluations. Services are confidential, and all clients are charged on a sliding fee schedule based on household income and number of dependents. The CPC is located at 1444 Mansfield Avenue, on the southeast corner of campus. To make a request for services, call: (406) 243-2367.

#### Physical Therapy Clinic

The UM Sports and Orthopedic Physical Therapy Clinic is open to all UM students, faculty and staff for the evaluation and treatment of problems related to injuries, surgeries and pain that limit or affect activities. The Physical Therapy Clinic Office is located in room 129 of the Skaggs Building, across from the Urey Underground Lecture Hall. The clinic is staffed by licensed physical therapists who are board certified in sports medicine, orthopedics and manual therapy. The clinic is a valuable component of the professional physical therapy program.

The clinic is open Monday through Friday from 10:00 - 5:00 pm. The clinic is not supported through the Student Health Service Fee. Blue Cross and other insurance typically cover physical therapy services minus any deductible or co-payment responsibilities. To make an appointment or for questions please call 243-4006 or visit online at <http://physicaltherapy.health.umt.edu/content/um-sports-orthopedic-clinic>.

#### University Center

The University Center enriches campus life by providing student-focused opportunities, programs, services, and space.

- The University Center is student-focused. We provide students from diverse backgrounds with the guidance and resources to define and participate in their own learning and development. Student learning, discovery, and engagement are at the core of our work.
- The University Center is committed to providing a broad range of opportunities that enrich the university experience. Through activities, governance, employment, and volunteerism students develop life-long leadership and professional skills.
- The University Center designs programs and activities that appeal to a wide variety of student interests. Our core values – learning, leadership, diversity, and fun – reflect our commitment to relevant and intentional programs that enhance students' overall educational experience.
- The University Center offers a myriad of convenient services including an art gallery, hi-tech study lounge, game room, theater, conferencing services, shipping and mail center, bank and ATM's, copy center, full-service hair salon, bookstore, market, food court, and campus OneCard.
- The University Center provides an inclusive, clean, well-maintained, and environmentally-conscious space for the campus and greater community to meet, study, and interact.

Visit us online at [www.umt.edu/uc](http://www.umt.edu/uc).

#### Sports and Recreation

Organized sports and recreational activities are an important part of academic and leisure life at the University.

##### Intercollegiate Athletics

The University of Montana-Missoula is a Division I member of the National Collegiate Athletic Association, and the Big Sky Conference. The athletic program consists of 14 varsity teams. The men's program includes competition in basketball, cross country, football (Football Championship Subdivision), indoor and outdoor track, and tennis. The women's program offers competition in basketball, cross country, tennis, indoor and outdoor track, volleyball, golf, and soccer. The teams go by the nicknames Griz and Lady Griz. Athletic scholarships are offered in all sports.

##### Campus Recreation

The Campus Recreation Department offers a wide variety of services to the students, faculty and staff of The University of Montana. A comprehensive intramural sports program provides opportunities for men's, women's and co-recreational team competition and individual events. An outstanding Fitness Program offers yoga, pilates, strength training and other sports specific conditioning.

Recreational facilities include gymnasiums, weight rooms, and indoor running track, handball and racquetball courts, multipurpose fitness studios, tennis courts, indoor swimming pool, indoor climbing wall, and a golf course. Sports equipment such as balls, bats, gloves, etc. can be checked out for free and other equipment such as volleyball, nets, badminton sets, and horseshoes require a cash deposit.

The Outdoor Program offers services to students, faculty, staff and the general public, supplying information, training, and education about outdoor pursuits and sports. Classes are offered on a non-credit basis for activity credits through the Health and Human Performance Department. The Outdoor Program also organizes outdoor trips and hosts high adventure and educational films and

lectures.

University Golf Course

The University of Montana-Missoula has a picturesque nine/eighteen hole golf course open to students, faculty, and staff, as well as the general public. It is located approximately one-half mile south of the main campus.

The course has a clubhouse restaurant, driving range, putting and chipping green. The pro shop is well-stocked and club and cart rentals are available. Private lessons are offered by appointment with an assortment of rate structures.

Grizzly Pool

The University of Montana Grizzly Pool is a 7-lane, 25-yard indoor pool. Present programs include: fitness swims, recreational swims, classes for all ages (infant to adult), life guarding and WSI classes, pool rentals, Swim Shop, and competitive skills lessons.