### MONTANA STATE UNIVERSITY | BOZEMAN





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Arts and Architecture, 217 Cheever Hall 994-4405 College of	
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Extended University 128 EPS Building 994-6550 Burns Technology Center (BTC)	
Continuing Education, 204 Culbertson Hall 994-6683 Office of	
Extension, Office of the 205A Culbertson 994-6647 Dean and Director	
Financial Aid Services 183 Strand Union 994-2845 Building	
Graduate School 108 Montana Hall 994-4145	
Health Service 121 Swingle Health 994-2311 Center	
International Programs 400 Culbertson Hall 994-4031	
Jake Jabs College 994-4421 of Business and Entrepreneurship	
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Nursing, College of 115 Sherrick Hall 994-3783	
Outdoor Recreation 1401 W. Lincoln Street 994-3621 Center	
PE Complex 114 Hosaeus 994-5500	
Police, Campus Huffman Building 994-2121	
Post Office Culbertson Hall, 1st 994-2672 Floor	
President, Office of the 211 Montana Hall 994-2341	
Registrar, Office of the 101 Montana Hall 994-6650	

Research, Creativity and Technology Transfer, Office of the Vice President	207 Montana Hall	994-2891
Residence Life	31 Hedges Complex	994-2661
ASK US Information	Strand Union Building	994-4636
ASMSU	Strand Union Building	994-2933
Food Service	Strand Union Building	994-3663
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Student Accounts	Controller's Office, 103 Montana Hall	994-1991
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Students, Dean of	120 Strand Union Building	994-2826
Summer Session, Office of	212 Montana Hall	994-7136
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Women's Center	372 Strand Union Building	994-3836

#### **Additional Information**

#### Catalog

#### Office of Admissions

201 Strand Union Building P.O. Box 172190 Montana State University Bozeman, MT 59717-2190 (406) 994-2452 Toll free 1-888-MSU-CATS admissions@montana.edu www.montana.edu/admissions

#### **Financial Aid**

#### Office of Financial Aid

183 Strand Union Building P.O. Box 174160 Montana State University Bozeman, MT 59717-4160 (406) 994-2845 www.montana.edu/wwwfa

### **Welcome**

Volume LXXII March 2018 No. 1 USPS 360-420

Welcome to Summer Session 2018 at Montana State University! The MSU Summer Session program is committed to providing a variety of classroom, outdoor, and online opportunities for students to advance or complete their educational goals.

Within the pages of this bulletin you'll discover an exciting mix of courses designed to meet the needs of a diverse audience. For example:

- Bobcat 4x4 (http://www.montana.edu/bobcat4x4) is Montana State
   University's new summer school format designed to help students
   catch up or get ahead in their progress toward degree. Classes meet four
   days a week for four weeks, with fast-paced courses in an immersive
   environment. Flexibility in scheduling and focus in studies are
   cornerstones to this new format.
- If you work, or leave Bozeman for the summer, you can still begin or continue your MSU education by enrolling in one or more online courses.
- Are you an incoming freshman? Jump-start your college career by fulfilling a core requirement or two.
- Are you a post-baccalaureate student planning to apply to medical or dental school? MSU's Summer Session offers a series of science and mathematics courses designed to meet the special academic needs of pre-med students.
- Summer Graduate School Offerings are designed to be completed in three to four summer sessions. These programs enable students to earn master of science degrees in mathematics education or in science education.

Summer 2018 brings special cultural events to MSU and the Bozeman community including musical and theatrical performances, historical exhibits, farmers' markets, and an arts festival. There's something for everyone here, so come join the fun!

We invite you to join us in Bozeman this summer for a season of learning, adventure, and discovery!

David Singel Associate Provost Director, Summer Session

Please visit our Web site for the most current information: http://www.montana.edu/summer

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Montana State University reserves the right to make changes in the regulations, courses and fees announced in this bulletin without advance notice.

For further information, contact:

Office of Summer Session or the Director of Admissions

Montana State University Bozeman, MT 59717

Photo, front cover: Kelly Gorham

Photo, back cover: Kelly Gorham

Design and production: Kristen Drumheller, MSU Creative Services, University Communications

### **Bobcat 4x4**

Bobcat 4x4 is Montana State University's new summer school format designed to help students catch up or get ahead in their progress toward a degree. Classes meet four days a week for four weeks, with fast-paced courses in an immersive environment. Flexibility in scheduling and focus in studies are cornerstones to this new format. 200+ classes spread across three sessions means that students have the flexibility to spend a month or two in class and the rest of summer taking advantage of jobs or internships and enjoying summertime in Bozeman.

There are three 4-week Bobcat 4x4 (four weeks, four days a week) parts-of-term offered this summer:

```
May start (May 14-June 7),
June start (June 11-July 6) and
July start (July 9-August 2)
```

Bobcat 4x4 classes are scheduled Monday through Thursday (M,T,W,R). During Memorial Day and Independence Day holiday weeks, classes will meet on Friday to make up for the day off.

```
May 28 make-up: Friday, June 1
July 4 make-up: Friday, July 6
```

The summer courses will be intensive with each of the 16 class days covering a week's worth of material.

1 credit = 10 hours/week of class time and studying

Students are limited to 6-credits in any given 4-week part-of-term. While a student could take two 3-credit classes, that is generally not recommended. Rather, the intent is for students to take one class per 4-week session. By taking one face-to-face class per part-of-term a student can still complete an entire semester's worth of coursework over the summer!

In addition to the three 4-week sessions, several classes are offered in six-week and 12-week sessions. For a complete list of courses visit http://www.montana.edu/bobcat4x4/summer-courses.html or https://atlas.montana.edu:9000/pls/bzagent/twbkwbis.P\_GenMenu? name=homepage

# **Early Admission for Young People**

#### **Opportunities for Recent High School Graduates**

Summer Session 2018 is a great way to introduce yourself to MSU and ease your transition from high school into college life. As an incoming freshman, you can get a jump start on your college career during the summer by completing one or more of your core course requirements.

Summer Session students enjoy smaller class sizes, a relaxed atmosphere on campus, organized outdoor group recreation, and academic advisors available to assist in making choices that will lead to a successful college experience. Come join the fun at Summer Session 2018!

#### **For More Information**

Admission to MSU (p. 7)

Core courses offered during Summer 2018 (http://www.montana.edu/summer/documents/Summer %202018%20Core%20Courses.pdf)

#### **Academic Advising Center**

130 Gaines Hall 8:30 a.m.-4:30 p.m., M, T, Th, F 9:30 a.m.-4:30 p.m., W (406) 994-3532 universitystudies@montana.edu

**Walk-in** advising for assistance with such things as drop/add, tutoring referrals, completion of change of curriculum forms, or other quick questions is available during our open hours. Special advising **appointments** to discuss matters such as choosing a major or minor, mapping out academic plans, or dealing with suspension or probation can be made by telephoning, e-mailing, or stopping by the office.

University Studies advising services are available to all students on campus. We also welcome inquiries from faculty and staff.

#### **General questions about Summer Session**

Contact the Office of Summer Session (http://www.montana.edu/summer).

#### **Early Admission for Current High School Students**

Summer Session 2018 provides an opportunity for current high school students to experience the college atmosphere and the level of coursework that is expected of a student at MSU. Whether you're trying to get a head start on your core courses or are just taking a class for fun, MSU offers a variety of summer courses that are sure to interest and challenge you.

Early Admission (concurrent high school/university attendance) allows a high-ability student who has not yet completed high school to take courses for university credit. If you have completed your sophomore year in high school, have a grade point average of at least 3.25, and have completed the majority of the college preparatory course work, you are welcome to apply.

#### Early Admission Guidelines Academic Eligibility

To be eligible for Early Admission, the applicant must:

- Demonstrate ability to do university-level work in at least one academic area
- Demonstrate a strong likelihood of success at university-level work in that area
- Meet the course requirements for Early Admission set by the departments offering the courses to be attended

 Normally such students will have completed the sophomore year in high school and will have a grade-point average of at least 3.25, documented on an official high school transcript.

#### **Application Procedure**

Receipt of the following credentials in the Office of Admissions constitutes a complete application for admission. Requests to have final credentials sent to MSU must be initiated by the applicant. Requests should be made by contacting the high school, the registrar's office at the college/university, or the testing agency.

- 1. Admissions Application: An application for admission (https://axiomw.msu.montana.edu/AxiomWebprod/Login.aspx?SourceID=13) may be submitted online or downloaded and printed; if completing the paper application, please return the completed and signed application form to the Office of Admissions. The application may also be obtained from a high school counselor or from the Office of Admissions
- 2. Application Fee: An application fee is not required
- 3. High School transcript: An official transcript must be sent directly from the high school to the Office of Admissions. The transcript must post all courses completed and a minimum grade point average (GPA) of 3.25 or test scores listed below
- 4. ACT/SAT scores: An ACT score of 27 or an SAT score of 1820 (prior to March 2017) or SAT Total Score of 1300 (after March 2018). Official ACT/SAT scores should be sent electronically directly to the Office of Admissions from the ACT/SAT testing agency. The MSU school code for ACT is 2420; the MSU school code for SAT is 4488
- Coursework: Must have completed the majority of the College Preparatory coursework outlined under Freshmen Admission Requirements (http://www.montana.edu/admissions/apply.shtml/ #freshman)
- Letter of Recommendation: A letter must be submitted from the high school principal and/or guidance counselor recommending the student for Early Admission
- 7. University Professor Recommendation: A letter from a faculty member in the university department in which the course is to be taken must state that the student is prepared to take the course in question and is granted permission to do so
- Interview: The MSU Early Admissions Committee must recommend acceptance in the Early Admission program. Applicants and their parents may be interviewed by the committee. Contact the Assistant Director of Admissions to schedule an interview: phone (406) 994-2452

#### For More Information

Core courses offered during Summer 2018 (http://www.montana.edu/summer/documents/Summer %202018%20Core%20Courses.pdf)
General questions about Summer Session

Contact the Office of Summer Session (http://www.montana.edu/summer)

### **How to Apply for Admission**

# Information for New Students and Summer-Only Students

Please note: Continuing students are automatically admitted to Summer Session. Former students are admitted to the University but must file an Intent to Register form (http://www.montana.edu/registrar/documents/pdfs/Intent\_to\_Register.pdf) with the Registrar's Office.

#### **Undergraduate Applicants**

New undergraduate students must apply (https://www.msuadmissions.org/application/index.cfm?isndsl) to Montana State University (MSU) through the Admissions Office (http://www.montana.edu/admissions). Students must be admitted to MSU and registered before the first day of class for any summer session they plan to attend.

- Application priority deadline for all summer sessions is May 1.
- International students must apply by February 1.

#### **Graduate Student Applicants**

New graduate students must apply (http://www.montana.edu/gradschool/admissions/getting\_started.html) to Montana State University (MSU) through The Graduate School (http://www.montana.edu/gradschool). Any graduate student who has been offered admission to MSU must first accept the offer of admission prior to registering for courses. Deadlines to apply to degree programs vary by department. Please see the department/program (http://www.montana.edu/gradschool/programs.html) for application deadline information.

#### **Immunization Requirements**

Students must meet MSU's immunization requirements before registering for classes. University Health Partners (UHP) requires a copy of an official health record to certify that you have met these requirements. To save money and time, please update your immunizations with your family physician before you come to MSU. If you were born before January 1, 1957, you are considered immune to measles, mumps and rubella and are not required to have these immunizations. However, you will need to complete the tuberculosis screening form and you may need to have a TB test. Consult the UHP website for immunization requirements (http://www.montana.edu/health/immunization.html) and to access the tuberculosis screening form (http://www.montana.edu/health/documents/TBScreen.pdf).

Immunization records should be submitted directly to University Health Partners by one of the following methods:

- Online (https://shs103.msu.montana.edu) (preferred method): To register, you will need to know your MSU ID and you will be asked to select a user name and password. You will enter the immunization data and complete the tuberculosis screening form. You will need to submit copies of your immunization records and the results of your TB test (if your answers on the screening form determine you need one). You can scan these into a pdf and upload them or you can fax or mail the records as described below.
- Fax or mail: Download and print the immunization form (http://www.montana.edu/health/documents/ImmunizationForm.pdf) and tuberculosis screening form (http://www.montana.edu/health/documents/TBScreen.pdf). Complete the forms, add any needed health records (including the results of your TB test if your answers on the screening form determine you need one), and fax to (406) 994-2504 or mail to:

MSU University Health Partners P.O. Box 173260 Bozeman, MT 59717-3260.

For more information, call UHP at (406) 994-2311.

#### **For More Information About Admissions Contact**

#### Office of Admissions

(406) 994-2452 or 1-888-MSU-CATS admissions@montana.edu

#### The Graduate School

(406) 994-4125 1-800-255-7962 gradschool@montana.edu

#### Office of Summer Session

(406) 994-7136 summer@montana.edu

#### **Services for Students with Disabilities**

Students desiring accommodations for a disability may request services through:

#### Disability, Re-entry and Veteran Services

180 Strand Union (406) 994-2824 TTY: (406) 994-6701 d (byork@montana.edu)rv@montana.edu (drv@montana.edu)

# Undergraduate Admission: Summer Information for New Students and Summer-Only Students

New undergraduate students must apply (https://www.msuadmissions.org/application/index.cfm?isndsl) to Montana State University through the Admissions Office (http://www.montana.edu/admissions). Students must be admitted to MSU and registered before the first day of class for any summer session they plan to attend.

- Application priority deadline for all summer sessions is May 1.
- International students must apply by February 1.

Please note: Continuing students are automatically admitted to Summer Session. Former students are admitted to the University but must file an Intent to Register form (http://www.montana.edu/registrar/documents/pdfs/Intent\_to\_Register.pdf) with the Registrar's Office.

#### **New Students**

#### Freshman Degree-Seeking Undergraduates are:

- Pursuing a bachelor's degree at MSU
- After completion of high school or its equivalent, have attempted fewer than 12 college-level credits
- Required to submit a final, official high school transcript (sent directly to MSU from the student's high school) and scores sent directly from ACT or SAT. Students who graduated more than three years ago are not required to submit ACT or SAT scores.

Students who did not complete high school are required to submit official High School Equivalency Test results (such as GED, HiSet or TASC) and scores from ACT or SAT. Students who would have graduated more than three years ago are not required to submit ACT or SAT scores.

#### Freshman admission application procedure:

- Complete the MSU Application for Admission (https:// www.msuadmissions.org/application/index.cfm?&isndsl).
  - Complete a paper application (http://www.montana.edu/admissions/applications/app.pdf). This is a large .pdf file (1.45 MB) which can be downloaded and printed.
- 2. Submit the application along with the application fee (\$38 online or \$30 paper).
- 3. Submit required documents (transcripts and/or test scores).
- 4. Submit record of immunizations and tuberculosis (TB) screening form to University Health Partners (see "Immunization Requirements").

The Office of Admissions will contact you by mail regarding the status of your admission within two weeks of the receipt of your application.

#### Transfer Degree-Seeking Undergraduates are:

- Pursuing a bachelor's degree or second bachelor's degree at MSU
- Graduated from a high school or its equivalent, and have attempted 12 or more college-level credits following high school graduation
- Required to have complete and official transcripts sent directly to MSU from each college or university attended
- In good standing at the previous institution(s)

#### Transfer admission application procedure:

- Complete the MSU Application for Admission (https://www.msuadmissions.org/application/index.cfm?&isndsl).
  - Complete a paper application (http://www.montana.edu/admissions/applications/app.pdf). This is a large .pdf file (1.45 MB) which can be downloaded or printed.
- 2. Submit the application along with the application fee (\$38 online or \$30 paper).
- Submit required official transcripts from EACH college or university (sent directly from the institution to MSU).
- 4. Submit record of immunizations and tuberculosis (TB) screening form to University Health Partners (see "Immunization Requirements").

The Office of Admissions will contact you by mail regarding the status of your admission within two weeks of the receipt of your application.

### Non-Degree Students (includes Summer-only students) Non-Degree Undergraduates:

- Do not currently hold a bachelor's degree
- Do not plan to pursue a bachelor's degree at MSU
- Are advised by the Academic Advising Center
- · Are not eligible to receive financial aid
- May not represent the University in intercollegiate athletic competition

#### Non-degree admission application procedure:

- Complete the MSU Application for Admission (https:// www.msuadmissions.org/application/index.cfm?&isndsl).
  - Complete a paper application (http://www.montana.edu/admissions/applications/app.pdf). This is a large .pdf file (1.45 MB) which can be downloaded and printed.
- 2. Submit the application along with the application fee (\$38 online or \$30 paper).
- 3. Submit record of immunizations and tuberculosis (TB) screening form to University Health Partners (see "Immunization Requirements").

The Office of Admissions will contact you by mail regarding the status of your admission within two weeks of the receipt of your application.

#### **Graduate Admission**

# Information for New Applicants, Returning Students and Summer-Only Applicants

Please note: Continuing graduate students are automatically admitted to Summer Session. Former graduate students who have sat out one term or more must file an Intent to Register form (http://www.montana.edu/registrar/documents/pdfs/Intent\_to\_Register.pdf) with the Registrar's Office to be admitted back into their original program or as a non-degree graduate student. If considering a new program, please complete a new application (http://www.montana.edu/gradschool/admissions/getting\_started.html) to The Graduate School.

Deadlines to apply to degree programs vary by department. Please see the department/program (http://www.montana.edu/gradschool/programs.html) for application deadline information.

#### **New Degree-Seeking Graduate Applicants**

- Pursuing a graduate degree at MSU (see The Graduate School website (http://www.montana.edu/gradschool) for more information regarding graduate programs)
- · College graduates, currently holding at least a bachelor's degree

#### **Non-Degree Applicants**

- · College graduates currently holding at least a bachelor's degree
- Are not pursuing a graduate program leading to an advanced degree, but wish to take graduate coursework
- Have not been offered full or provisional admission
- Have non-degree standing as recommended by the admitting department or The Graduate School
- Are applying for programs such as: WWAMI Medical Education program, WIMU Regional Program in Veterinary Medicine and Post-Baccalaureate Pre-Medical Certificate

In some cases, taking and passing coursework as a non-degree graduate student may help to provide evidence of a student's ability to perform well in a graduate program. Some departments also may recommend the completion of undergraduate coursework prior to admission into a specific graduate program. Non-degree graduate students may take any courses offered by the university (undergraduate or graduate level) other than restricted departmental courses. They are not eligible for financial aid. Note: only nine (9) graduate-level credits taken as a non-degree graduate student are allowed to be used toward (if accepted) a degree program; only three (3) can be used toward (if accepted) a certificate program.

#### **Graduate School Application Process**

- Complete The Graduate School online application (http:// catalog.montana.edu/summer-bulletin/how-apply-admission/ www.montana.edu/gradschool/apply.html) and pay the non-refundable application fee (\$60 first app/\$30 second app [or more] w/in the first year). This online application process allows you to apply for your specific degree option and allows you to track your application from materials received (e.g. Letters of recommendation) through the committee review and decision process.
- Request that an official transcript from the institution granting your bachelor's degree be sent to MSU at the time you submit your application; most departments require your transcripts to be sent directly to the department office. MSU undergraduate alumni do not

- need to provide MSU transcripts (however, uploading an unofficial transcript during the application process is always helpful).
- 3. If applying to a degree program, please take a moment to review specific application requirements and deadlines established by the admitting department (http://www.montana.edu/gradschool/ programs.html); these requirements differ program to program and may include other documents necessary for the application process (e.g., Graduate Record Exam, Resume, Personal statement, and so forth).
- Additional Materials are required by International Applicants (http://www.montana.edu/gradschool/admissions/apply.html).

For further assistance, contact The Graduate School at (406) 994-4125 or gradschool@montana.edu, or visit the School's web site at www.montana.edu/gradschool/

#### **Graduate School Decision Process**

Persons eligible to apply as degree-seeking graduates must 1) hold a baccalaureate degree from a regionally accredited institution and 2) have demonstrated potential for graduate study, as indicated by the admitting department. Academic record is one such indicator of potential. The standard is cumulative B average (3.00-4.00) or better of undergraduate or graduate work. Some departments may require a master's degree prior to admission to a doctoral program.

Every applicant who applies for admission to MSU and completes an application will receive a formal decision (http://www.montana.edu/gradschool/policy/admissions.html#admissions\_notification) by The Graduate School, whether they have, or have not, been admitted. Admission decisions are made on an individual basis. The application is first reviewed by the admitting department's review committee and then by The Graduate School to determine if an applicant's academic history and preparation are satisfactory before a decision is made.

Students may be admitted as a degree seeking or a non-degree seeking student. In a degree seeking status, a student can be admitted as either a full, conditional, or provisional standing. In a conditional admittance, the Graduate School is typically missing an official document. A hold will prevent an admitted student from registering until the document is received. With a provisional standing, there may be stipulations placed on the admittance written into the acceptance letter, developed by the department and/or the Graduate School. For non-degree admissions, all of the above apply, except for provisional admittance.

Applicants should consider themselves admitted only when they have received an official acceptance notification from The Graduate School. Being accepted into a graduate degree program may be limited by the availability of faculty, staff, facilities, area of interest, and so forth. In such cases, it is not possible to admit all applicants who are otherwise qualified.

Admitted students are required to submit records of immunizations and tuberculosis (TB) screening to Student Health Service (See "Immunization Requirements (http://www.montana.edu/health/forms.html)")

For full explanation of the above, see The Graduate School's Policies and Procedures (http://www.montana.edu/gradschool/policy).

#### **Entrance Exams**

Each department sets its own entrance exam requirements. Please contact the department to which you are applying for more information (see Department Listing (http://www.montana.edu/gradschool/graduate-programs)).

#### **English Proficiency Exams**

International applicants must submit an English Proficiency exa score, using: TOEFL, PTE, or IELTS. See the International Application (http://www.montana.edu/gradschool/policy/admissions\_intl.html) page for additional information.

### **Graduate Programs**

For detailed information about The Graduate School at MSU, please visit their webpage (http://www.montana.edu/gradschool). The master's, doctoral, and certificate offerings are listed below, along with links to each academic department's webpage. To find out more about a specific graduate program, please contact the department.

#### **Native American Studies Graduate Certificate**

Montana State University's graduate certificate in Native American Studies is the only program of its type in the world. Courses cover current and historical aspects of Native American art, law, culture and contemporary issues, and students will gain a deeper insight into the American Indians of Montana, the region, and the nation. Please check the website for more information and current summer offerings. http://www.montana.edu/online/degrees/native-american-studies/

#### Post-Baccalaureate Pre-Medical Certificate Program

In September of 2005, MSU received approval from the Montana Board of Regents to institute a Post-Baccalaureate Pre-Medical Certificate Program, through which students who have completed their bachelor's degree may take the science and mathematics courses traditionally required for application to medical, dental, or other health professional schools. Ideally, this program begins in the first 4-week session of Summer.

For more information, visit the program's Web page at http://www.montana.edu/hpa/index.html

#### **Education for Educators**

Education for Educators consists of Master's Degree Programs and Non-Degree and Certification Programs geared toward those in the education field.

#### **Summer Master's Degree Programs in Education**

- Masters in Family and Financial Planning (http://catalog.montana.edu/graduate/education-health-human-development/health-human-development/family-financial-planning): This program helps working professionals who already have bachelor's degrees start careers assisting people with personal finances. The program is conducted in cooperation with the Board of Standards for the Certified Financial Planner™ program. Successful students will be eligible to take the Certified Financial Planner™ Certification Examination. http://www.montana.edu/online/degrees/ffp/
- Master of Science in Mathematics (Mathematics Education Option (http://catalog.montana.edu/graduate/letters-science/mathematical-sciences/ms-mathematics-education-option-msmme): The MSMME program emphasizes the teaching and learning of secondary mathematics and offers a blend of courses addressing key topics in mathematics content and pedagogy. The 30-credit-hour program includes four required core content courses, two required pedagogy courses from a choice of four, and a variety of elective courses. Completing the program typically requires taking a series of online courses over two academic years and attending at least one (required) three-week summer session in Montana. <a href="http://math.montana.edu/graduate/msmathed/">http://math.montana.edu/graduate/msmathed/</a>
- Master of Science in Science Education (MSSE): MSSE is an
  intercollege, interdisciplinary effort. Online graduate courses are offered
  during the fall semester, spring semester, and summer session and
  will be taken by asynchronous, computer-mediated communication.
  Montana-based field and lab graduate courses are offered during the

summer session. http://www.montana.edu/msse/prospective-students/degree-program.html

#### Non-Degree and Certificate Programs in Education

- Addiction Counseling Certificate Program (http://catalog.montana.edu/graduate/education-health-human-development/health-human-development/addiction-counseling): The MSU Addiction Counseling certificate represents 12 addiction specific coursework credits. These credits may be counted toward the Montana Licensed Addiction Counselor credential.
- Educational Leadership-Superintendent Certification (http://catalog.montana.edu/graduate/education-health-human-development/education/administrative-licensure/superintendent-licensure): The purpose of this program is to provide the minimum skills and knowledge required for the position of district superintendent. In addition to improving skill and knowledge, it is the goal of the program to create strong networks among students to support effective practices. To that end, classes are generally offered in a blended format which combines face-to-face delivery and distance delivery. An appropriate balance of theory and practice is designed into the content of the coursework. For more information, please visit their webpage. (http://www.montana.edu/education/grad/edlead)
- National Teachers Enhancement Network (NTEN) (http://btc.montana.edu/courses/aspx/ntenhome.aspx): The National Teachers Enhancement Network (NTEN) is one of the country's mostestablished online professional development programs for teachers. Courses are designed to help elementary, secondary and community college teachers develop a deeper understanding of science concepts while interacting with and learning new techniques from other teachers and researchers around the globe.
- School Library Media Certificate Program (http:// www.montana.edu/education/grad/librarymedia): This program is geared toward licensed teachers who want to obtain the school library media endorsement. This certification program/endorsement can only be added to an existing teaching license.

#### Summer Science and Mathematics Courses for Pre-Med

Summer Session 2018 also offers the following series of science and mathematics courses designed to meet the special academic needs of students who plan to apply to medical, dental, or other health professional schools. The scheduling for this series of courses has been developed to allow students to enroll in one of the Chemistry courses and one of the Physics, Mathematics, or Statistics courses during each of MSU's three four-week summer sessions, thus enabling students to earn up to 16 science and mathematics credits in only 12 weeks. Other courses available to pre-med students this summer are SOCI 101IIS - Introduction to Sociology for 3 cr, MEDS 440 - Clinical Observation for 2 cr, PSYX100 - Introduction to Psychology for 4 cr. Please visit an academic advisor for more detailed information.

### **How to Register for Classes**

Please note: Prior to registering for classes, **former students must file an Intent to Register form** (found under the Student Sevices tab in MyInfo), **new students and summer-only students must apply for admission to MSU** (p. 7).

#### **Student Categories**

#### **Continuing Students**

- Continuing students are those registered in courses during Spring Semester 2018.
- Continuing students are automatically admitted to Summer Session and may simply register in the same manner and at the same time as they do for Fall Semester 2018. The Summer registration alternate PIN (also referred to as "advisor code" or "registration code") is the same number assigned to use for Fall registration.
- Advising for Summer Session begins Monday, March 19 and registration begins Monday, March 26 on the Web (refer to the Fall 2018 Registration Handbook for registration timetable).

#### **Former Students**

- Former students are those who have previously been admitted to MSU and paid fees, but who did not attend or withdrew from Spring Semester 2018.
- Former students must file an Intent to Register form with the Registrar's Office. Former students should use the online Intent to Register through MyInfo. Registration information will be sent via the email address provided on the Intent to Register form.

#### **New Students**

- New students are those who have not previously been admitted to MSU and who wish to enroll in the University as degree-seeking students
- Before new students are allowed to register for courses, they must apply for admission and be accepted into the University.
- New Student Welcome Letter (http://www.montana.edu/summer/ documents/Summer%20Welcome%20Letter%202017.pdf)
- New Student Checklist for Summer Session Orientation and Registration

#### • Registration procedure

#### a. Undergraduates

- Advising and Registration for new Summer Session students will begin Thursday, April 12. All new students will be advised by the Academic Advising Center (AAC).
- Students should contact the AAC at (406) 994-3532 or advising@montana.edu to schedule an advising appointment (these can be done in person, or via phone or Skype).
- Following the advising appointment, students will be given their registration "PIN" (or code) along with instructions on how to register for Summer Session courses.
- Students are required to attend an Orientation session before registering for Fall Semester 2018 courses. The AAC advisor will put a hold on the student's account so they cannot register for fall classes until they attend an Orientation session.
- Transfer students may select Orientation Option 1 (spend one weekday on campus between April 16 - August 17) or Option 2 (attend the Transfer Student Orientation Program on Wed., Aug. 22). Freshman students may select a summer or fall Orientation session.

 For more information about MSU Orientation, or to register for an Orientation session, please go to http:// www.montana.edu/admissions/orientation/.

**Graduates—May register on the Web** (instructions will be included with your admission acceptance letter from the Graduate School).

#### b. Check Your Registration Status

 Check your registration status on the Web by going to the MSU home page (www.montana.edu) and following these links: MyInfo; Enter Secure Area; Login (follow instructions on that page); Student Services; Registration; Student Detail Schedule.

#### c. Obtain Your Fee Summary

 Obtain your fee summary on the Web by going to the MSU home page (www.montana.edu) and following these links: MyInfo; Enter Secure Area; Login (follow instructions on that page); Student Services; Student Records; Electronic Billing and Payment.

#### d. Pay Your Fees

Fee payment is due by the third day of class and may be done
online, by mail, or in person at the Student Accounts cashier's
window, Montana Hall. For more information regarding
payment of fees, please see Summer Fees (p. 16).

#### **Summer-Only and Other Non-Degree Students**

- Summer-only students are those who have not previously been admitted to MSU and who wish to attend just the summer term. A typical summer-only student is one who seeks to earn MSU credits during Summer Session and then transfer those credits to their home campus elsewhere. Other summer-only students may include nondegree graduates or practicing teachers who wish to earn credits for purposes of recertification or salary advancement.
- Before summer-only students are allowed to register for courses, they
  must apply for admission and be accepted into the University (see
  admission procedures (p. 7)).

#### • Registration procedure

#### a. Undergraduates

- Advising and Registration for Summer-Only and Other Non-Degree students will begin **Thursday**, **April 12**. All new students will be advised by the Academic Advising Center (AAC).
- Students should contact the AAC at (406) 994-3532 or advising@montana.edu to schedule an advising appointment (these can be done in person, or via phone or Skype).
- Following the advising appointment, students will be given their registration "PIN" (or code) along with instructions on how to register for Summer Session courses.
  - **Graduates—May register on the Web** (instructions will be included with your admission acceptance letter from the Graduate School)
- b. For instructions on how to check your registration status, obtain your fee summary, and pay your fees, see items 2, 3 and 4 under "New Students".

#### **For More Information About Registration Contact**

#### Office of the Registrar

(406) 994-6650

registrar@montana.edu (//registrar@montana.edu) www.montana.edu/registrar

#### The Graduate School

(406) 994-4145 1-800-255-7962 gradschool@montana.edu www.montana.edu/wwwdg

#### Office of Summer Session

(406) 994-7136 summer@montana.edu www.montana.edu/summer

## Orientation Information For Summer Session Students

All new students will be sent an Orientation brochure, including information on registration, immunizations, parking, and fee payment, starting in early March. Please feel free to stop by the Office of Admissions with questions upon arrival on campus.

Campus tours are offered at 9:00 a.m. and 2:00 p.m., Monday through Friday, leaving from the Office of Admissions, 201 Strand Union. For more information contact:

Orientation Office
201 Strand Union
(406) 994-2827
1-888-MSU-CATS
orientation@montana.edu
Visit the Orientation Web page at www.montana.edu/admissions/
orientation.

#### **Fall Semester 2018 Registration**

Please refer to the Fall 2018 Registration Handbook for instructions on how to register properly for Fall 2018. All students must meet with an academic advisor in order to be eligible to register for Fall classes.

#### **Continuing Students**

Continuing students may register for Fall Semester from March 26 through August 24.

#### **New Undergraduate/Non-Degree Students**

New undergraduate non-degree students who attend Summer Session and who would like to continue as non-degree students during Fall Semester may select courses during their summer attendance.

Undergraduate non-degree students who attend Summer Session and who would like to be admitted as degree-seeking undergraduates for Fall Semester must meet the requirements of admission as outlined in the University Course Bulletin. For information regarding admission procedures, students should contact:

Office of Admissions
201 Strand Union
(406) 994-2452
1-888-MSU-CATS
admissions@montana.edu
Visit the Office of Admissions Web page at www.montana.edu/admissions.

# **Advising Services for New Students**

New students are encouraged to contact the associate/assistant dean or other official representative of their college, or the Academic Advising Center, for assistance with course selection, connecting with an adviser, or for help with other questions.

#### **Agriculture**

Jessica Murdock, Student Services Coordinator 202 Linfield Hall (406) 994-5744 issica murdoch@montana.edu (noracmith@mon

jessica.murdoch@montana.edu (norasmith@montana.edu)

#### **Arts and Architecture**

Nora Smith, Assistant Dean 217 Cheever Hall (406) 994-4405 norasmith@montana.edu (bstruman@montana.edu)

#### **Business**

Brenda Truman, Director 337 Reid Hall (406) 994-4421 bstruman@montana.edu

#### **Education, Health & Human Development**

250 Reid Hall (406) 994-4133

#### **Dept. of Education Advising Center**

132 Reid Hall (406) 994-1880 cmeldahl@montana.edu

#### Dept. of Health & Human Development Advising Center

121 Hosaeus PE Complex (406) 994-4001 hhd@montana.edu

#### **Engineering**

Jennifer Clark, Student Success Coordinator 212 Roberts Hall (406) 994-2272 engrinfo@coe.montana.edu

#### **Letters and Science**

David Cherry, Assoc. Dean 2-202 Wilson Hall (406) 994-4288 dcherry@montana.edu

#### Nursing

Teresa Seright, Associate Dean for Undergraduates 111 Sherrick Hall (406) 994-2660 teresa.seright@montana.edu (dmccray@montana.edu)

#### **University Studies**

Diane Donnelly, Director 130 Gaines Hall (406) 994-3532 advising@montana.edu

#### **Health Professions Advising**

Sheila Nielsen, Director 317 Leon Johnson Hall (406) 994-1670 hpa@montana.edu

#### The Graduate School

Donna Negaard, Student Services Mngr. 108 Montana Hall (406) 994-4145 gradschool@montana.edu

#### **Academic Advising Center**

130 Gaines Hall (406) 994-3532 advising@montana.edu

### **Academic Information**

Students are held responsible for knowledge of the regulations governing registration, drop/add, withdrawal and other procedures outlined in this bulletin, in the MSU Course Bulletin, and in any special registration instructions which may be issued on a semester basis.

#### **Drop/Add Procedures**

Deadline dates for dropping and adding courses are listed in the table below. For more information visit the MSU Online Catalog Drop/Add Regulations and Procedures (http://catalog.montana.edu/curriculumenrollment-graduation) page.

4x4 Session Days of Instruction: In the case where a holiday falls within a 4x4 session, that session will end on a Friday.

#### **Drop/Add Schedule**

.,,	May-start 4x4	June-start 4x4	July-start 4x4	Final 4x4
Instruction begins	May 14	June 11	July 9	July 26
Last day to add online	May 13	June 10	July 8	July 25
Last day to add; Pass/Fail petitions due	Thirteenth day of instruction	Thirteenth day of instruction	Thirteenth day of instruction	Thirteenth day of instruction
Last day to drop online	May 15	June 12	July 10	July 27
Drop without grade during this time	May 14-May 16	June 11-June 13	July 9-July 11	July 26-July 30
W grades only for drops during this time	May 16-May 31	June 13-June 27	July 11-July 25	July 30- August 13
No drops beginning this date	June 1	June 28	July 26	August 14
Classes end	June 7	July 6	August 2	August 21
	First 6-Week	Intersession*	Second 6- Week	12 Week
Instruction Begins	First 6-Week May 14	Intersession* June 11		12 Week May 14
	May 14		Week	
Begins Last day to add	May 14	June 11	Week June 25	May 14
Begins Last day to add online Last day to add; Pass/Fail	May 14  May 13  Sixth day of	June 11 June 10 Sixth day of	Week June 25 June 24 Sixth day of	May 14 May 13 Thirteenth day of
Begins Last day to add online Last day to add; Pass/Fail petitions due Last day to	May 14  May 13  Sixth day of instruction	June 11 June 10 Sixth day of instruction	Week June 25 June 24 Sixth day of instruction	May 14  May 13  Thirteenth day of instruction  May 23
Begins Last day to add online Last day to add; Pass/Fail petitions due Last day to drop online Drop without grade during	May 14  May 13  Sixth day of instruction  May 17  May 14-May	June 11  June 10  Sixth day of instruction  June 18  June 11-June	Week June 25 June 24 Sixth day of instruction June 28	May 14  May 13  Thirteenth day of instruction  May 23  May 14-May

Classes End June 22 August 3 August 3

Intersession designed for courses of varying length. Courses that do not conform to session beginning or ending dates and are typically short in length will be assigned appropriate deadlines not specified above.

#### **Grade Reports and Transcripts**

Grades for all sessions that end by August 3 will be processed and available on August 10, and will be posted on the Web at MyInfo.

Transcripts of summer work can be processed beginning August 20. Students who want official transcripts sent to another institution or to their place of employment need to request an official transcript to be sent after their grade is posted. For more information visit the Registrar's Web page at www.montana.edu/registrar.

#### **Improper Registration**

A student who attends a class without being properly registered for it will

#### **Taking Courses for Zero Credit Auditor**

Registered students may, with the permission of the instructor, enroll in a course as auditors and earn zero credit. No grade will be given, and such a course may not be challenged at a later date for credit. Students must declare their intent to audit by the third class session. Students who audit pay the same fees as students enrolled for credit.

#### **Release of Information**

Montana State University is in compliance with the Family Educational Rights and Privacy Act of 1974 (referred to as the "Buckley Amendment") and the Montana Privacy Act. Briefly, these laws establish specific guidelines concerning the release of information and the students' privilege to inspect and review their own education records.

#### The Graduate School **Summer Dates and Deadlines (http://** www.montana.edu/gradschool/policy/datesdeadlines.html#fall)

May 14	Last day for international applications for fall semester (if this is different than your department, follow your department's date)
May 14	First 6-week session begins
May 28	Memorial Day holiday (no classes; offices closed)
June 10	Last day for graduate students to file "Application for Advanced Degree"
June 25	Second 6-week session begins
July 4	Independence Day holiday observed (no classes; offices closed)

July 17 Last day for master's

Last day for master's comprehensive or doctoral examination. Last day for approval of thesis, dissertation, or professional paper (if professional paper is submitted to the library) by formatting advisor.

August 3 Intersession ends; Last day of

semester; classes end for 12 week and second 6 week, Last day to withdraw application for advanced degree

### **Summer Fees**

#### Fees as of January 2018

Fees are based on a per credit-hour rate as approved by the Montana Board of Regents. The fee schedule is also posted at www.montana.edu/summer/fees.shtml.

#### **Determining Your Fees**

Registration, tuition and building fees are charged to all students (included in the tuition fee table to the right). Health fees, activity fees and intramural fees are included. Some courses also require materials or special use fees; such fees are assessed at registration. The schedule below lists the fees up to 12 credits for all sessions. If the number of credits exceeds 12, the rate remains the same as 12 credits. Fees for online courses are the same as on-campus courses.

#### **Undergraduate and Post-Baccalaureate**

Credits	Resident	Non-Resident
01	\$348.60	\$1,086.75
02	\$609.60	\$2,085.90
03	\$870.60	\$3,085.05
04	\$1,131.60	\$4,084.20
05	\$1,392.60	\$5,083.35
06	\$1,653.60	\$6,082.50
07	\$2,165.85	\$7,332.90
08	\$2,426.85	\$8,332.05
09	\$2,687.85	\$9,331.20
10	\$2,948.85	\$10,330.35
11	\$3,209.85	\$11,329.50
12	\$3,470.85	\$12,328.65

#### Graduate

diaddate		
Credits	Resident	Non-Resident
01	\$395.70	\$1,133.85
02	\$703.80	\$2,180.10
03	\$1,011.90	\$3,226.35
04	\$1,320.00	\$4,272.60
05	\$1,628.10	\$5,318.85
06	\$1,936.20	\$6,365.10
07	\$2,495.55	\$7,662.60
08	\$2,803.65	\$8,708.85
09	\$3,111.75	\$9,755.10
10	\$3,419.85	\$10,801.35
11	\$3,727.95	\$11,847.60
12	\$4,036.05	\$12,893.85

#### **Other Fees**

- New Student Fee: All new students pay a one-time New Student Fee, included in their fees during their first semester of attendance at MSU. The fee is \$90.00 for new freshmen and \$75.00 for new transfer students.
- Auditors: Regularly enrolled students who enroll for courses without credit (audit) pay the same fees as students enrolled for credit.
- Non-Matriculated Students (Listeners): Any adult person not regularly enrolled at MSU may, with the permission of the instructor, register for a nonlaboratory class as a non-matriculated student upon the payment of the same fees as regularly enrolled in-state students. The person so registering may not participate in class discussion nor take

examinations. Applications for non-matriculated enrollment should be made through the Registrar, who will provide a Non-Matriculated Attendance Form for acceptance by the instructor. Activity courses may not be taken by non-matriculated students.

#### **Obtaining Your Fee Summary**

Properly registered students may obtain their fee summary on the Web by going to the MSU home page (www.montana.edu) and following these links: MyInfo (http://www.montana.edu/myinfo); Log into MyInfo; Login (follow instructions on that page); Electronic Billing and Payment.

Students taking 7 credits or more are charged health, dental, activity, and intramural fees (included in the fee tables, above). **Note:** All fees subject to change with Montana Board of Regents approval.

#### **Fee Payment**

Fee payments are due within three days from the beginning date of any given course. Students who do not pay fees by this deadline may have their registration cancelled for that course.

- Online (credit card payments and E-checks) under MyInfo (Login, select Electronic Billing and Payment, click on the Quick Pay link)
- Mail payment to: Student Accounts
   P.O. Box 172640
   Montana State University
   Bozeman, MT, 59717-2640
- In Person (cash, check, credit card) at the cashier's window, Montana Hall
- Drop payment in the student payment box at the Student Accounts cashier's window, Montana Hall

Please make checks payable to Montana State University.

Bill confirmations for students who have zero or credit balances may be done on the Web under MyInfo (Login, select Electronic Billing and Payment)

#### **Fee Payment Deadlines**

First 6 weeks	May 18
Second 6 weeks	June 28
Full 12 weeks	May 18
Intersession	June 14
May-start 4x4	May 16
June-start 4x4	June 13
July-start 4x4	July 11

#### **Fee Refunds**

Refunds for Summer Session are handled in the same manner as those for other academic semesters. All fees except the Registration fee, ID fee and Orientation fee are refunded to students who withdraw from MSU during the period of registration and before the beginning of classes, in which case the registration of the student is cancelled. No refund of fees will be given for withdrawal from courses for which a "W" grade is given (see Drop/Add Regulations and Procedures page at www.montana.edu/wwwcat/register/register1.html for more information about the "W" grade).

Refunds for financial aid in excess of your university bill for Summer Session will be available after May 14. Refunds for the balance of funds will be by Direct Deposit, or mailed to the student if the student has not signed up for Direct Deposit, provided you have completed all necessary documentation and signed all promissory notes and returned these materials to the Financial Aid Office. Be sure your address(es) is current at the

Student Accounts Office, Registrar's Office or Financial Aid Office. A refund will not be processed until bill confirmation has been completed with the Student Accounts Office.

#### **Refunds for Drop/Adds**

Courses added are retroactive to the first day of class instruction for fee assessment. No refund of fees will be made after the third day of instruction in a 4-week, or sixth day of instruction in a 6-week or intersession, or after the 13th day of instruction in the 12-week session, including dropped courses.

#### **Refunds for University Withdrawals**

After the beginning of classes, fees are refunded according to the date the student completes the university withdrawal form.

The following special considerations will determine the amount of refund due, if any, for university withdrawal:

All refunds are based on the date of university withdrawal; whether or not a student attended class(es) has no bearing on the refund. Refunds are further determined by enrollment in a 4-week, 6-week, intersession, or 12-week session.

Short courses are a part of the Summer Session and included in the total credit load for fee assessment and refund determination. No refund is made for dropping a course of two weeks or less in duration unless it is dropped prior to the beginning of the class.

#### **Veteran Educational Benefits**

Veterans, dependents, and members of the Guard/Reserves who are eligible for VA educational benefits; also veterans who are Montana residents and who served on active duty during specified periods of conflict and have exhausted their GI Bill benefits may be eligible for the MUS Veteran Tuition Waiver, please contact:

Veteran Support Center 185 Strand Union Montana State University Bozeman, MT 59717 (406) 994-3661 vets@montana.edu www.montana.edu/veteran

#### **Withdrawal Refund Schedule**

The following withdrawal refund schedule indicates the percentage of fees refunded according to the day of the session:

#### 4x4 Sessions

#### May-start 4x4

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
May 14	90%
May 15	75%
May 16	50%
After May 16	No refunds

#### June-start 4x4

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
June 11	90%
June 12	75%

June 13	50%
After June 13	No refunds

#### July-start 4x4

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
July 9	90%
July 10	75%
July 11	50%
After July 11	No refunds

#### 6-Week Sessions and Intersession First 6-Week Session

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
May 14-15	90%
May 16-17	75%
May 18-21	50%
After May 21	No refunds

#### **Second 6-Week Session**

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
June 25-26	90%
June 27-28	75%
June 29-July 2	50%
After July 2	No refunds

#### Intersession

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
June 11-13	90%
June 14-18	75%
June 19-21	50%
After June 21	No refunds

#### 12-Week Session

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
May 14-17	90%
May 18-23	75%
May 24-May 31	50%
After May 31	No refunds

<sup>\*</sup> Does not include Registration Fee, which is non-refundable.

### **Financial Aid**

**Office of Financial Aid Services** Room 183 Strand Union Building (406) 994-2845

www.montana.edu/wwwfa

#### **Summer Session Financial Aid**

Applying for Summer Session 2018 financial aid requires two separate application processes:

- 1. You must complete a 2017-2018 Free Application for Federal Student Aid (FAFSA).
- 2. You must complete a MSU Summer Supplemental Application.

## Completing the Free Application for Federal Student Aid (FAFSA)

Your completed 2017-2018 FAFSA must be received by the federal processor no later than June 30, 2017. **This is an absolute deadline for federal student loans.** Applications received by the processor after June 30 will not be considered for summer loans. If you applied for federal financial assistance for Fall 2017 or Spring 2018 semesters, you have already completed a 2017-2018 FAFSA. Please review MyInfo for any outstanding requirements. Complete the FAFSA electronically at www.fafsa.ed.gov (http://www.fafsa.ed.gov).

#### **Completing the MSU Summer Supplemental Application**

With a completed FAFSA for 2017-2018, you may apply for summer aid by completing the MSU Summer Supplemental Application. A completed 2018-2019 FAFSA is also recommended but not required. Complete the 2018-2019 FAFSA electronically at www.fafsa.ed.gov (http://www.fafsa.ed.gov) if you have not already done so. The last day to apply for summer aid is June 30, 2018. Requests for summer term financial aid may not be accepted after this date.

The Summer Supplemental Application is available by clicking on the Forms link on the Financial Aid Services Web site at www.montana.edu/wwwfa. Please also review the MSU Summer webpage for more information as the summer course format has changed, http://www.montana.edu/bobcat4x4/.

#### **Minimum Credit Requirements for Summer Financial Aid**

6 credits	Required to receive any financial aid
6 credits	Required to receive 100% of your loan and 50% of your grant
12 credits	Required to receive 100% of all types of financial aid

#### **Federal Student Loans**

Eligibility for a student loan is dependent upon the cost of summer attendance and the amount borrowed during the academic year. You must be enrolled for a minimum of 6 credits to receive loan funds. Loan proceeds will be applied to your University bill.

#### **Federal Pell Grant**

Eligibility for the Pell Grant will be based on your enrollment level across all summer sessions. Students attending at least half-time will have their eligibility based on either the 2017-2018 or the 2018-2019 FAFSA. Please turn in both for maximum consideration. Awarding will be made based on the best award. If you are approaching graduation, attending Fall 2018 or Spring 2019 only or approaching your lifetime limit, please stop by the office to discuss options.

#### **Confirming Your Bill**

You must confirm your bill (pay fees) for Summer Session with the Student Accounts Office by the published deadline. If you fail to do this, it will be assumed you are not attending Summer Session. This will result in both your classes and your financial aid being cancelled. Reinstatement of classes or financial aid will be based on availability at the time reinstatement is requested.

#### **Refund Checks**

Your University bill will reflect charges due for the semester. Provided you meet all of the qualifications to receive financial aid funds, any scholarship, grant, or loan funds awarded to you will be automatically credited to your University student account to be applied to the amount due for the semester.

If your financial aid exceeds your University charges you will be refunded the difference by the Student Accounts Office provided you meet all eligibility requirements. Refunds are generated by the Student Accounts Office as soon as possible after the start of summer classes.

The Student Accounts Office will release a refund when the following requirements have been met:

- You have completed and returned all required financial aid documents and loan promissory notes to the appropriate offices.
- 2. You have confirmed your bill at the Student Accounts Office.

For questions regarding the amount and timing of your refund, contact:

Student Accounts Office Room 102 Montana Hall (406) 994-1991. extension 3

#### **Satisfactory Academic Progress**

You must meet the Satisfactory Academic Progress Policy standards in order to be eligible for financial assistance. This policy is published and available at the Office of Financial Aid Services or online at www.montana.edu/ wwwfa/. Spring 2018 academic progress can impact summer aid eligibility.

#### **Short Term Loans**

This is a loan which permits a student, who may be experiencing temporary difficulties, to borrow small sums of money for a short period of time. No collateral is required for a short-term loan although the student must identify a reliable source of repayment. In addition, a student must have a cumulative grade-point average of 2.0 or better at MSU, be enrolled for at least six credits as a degree-seeking student, and have a satisfactory repayment record with respect to any previous loan(s) received.

The University reserves the right to reject or decline any application, to determine the amount and a date of repayment for any loan approved, and to require a guarantor. Applications and other information regarding the short-term loan program may be obtained from the Office of Financial Aid Services. Allow a minimum of two working days to process a short-term loan application.

#### **Book Loans**

This loan is designed to assist students with money to buy books at the MSU Bookstore before aid refunds are distributed. The Office of Financial Aid Services must verify that each student requesting a book loan has adequate funds (financial aid), after University charges are paid, to cover the costs of the loan. Funds borrowed are deposited to the student's CatCard no earlier than 10 days prior to the beginning of the term. Once the student's financial aid is disbursed, it is applied to outstanding charges including the book loan (and the non-refundable loan processing fee of

\$20.00). This loan may be requested from the Office of Financial Aid Services.

# Financial Aid for Fall/Spring Semesters 2018-2019

You must complete the 2018-2019 Free Application for Federal Student Aid (FAFSA) in order to be considered for financial assistance for 2018 Fall Semester and/or 2019 Spring Semester.

The following dates apply:

December 1, 2017	<b>Priority filing date</b> for 2018-2019 FAFSA.
November 15, 2018	<b>Final filing date</b> for 2018-2019 FAFSA for 2018 Fall Semester aid
March 31, 2019	<b>Final filing date</b> for 2018-2019 FAFSA for 2019 Spring Semester aid

#### **Student Financial Aid Status**

Financial aid status of individual students is available online through MyInfo. You can check your overall financial aid status including outstanding requirements and holds, Satisfactory Academic Progress, individual cost of attendance, award information, and account information regarding charges and payments from the Student Accounts Office. The Internet address is www.montana.edu (MSU Home Page). Links under MyInfo will take you to the online student information system.

#### **General Financial Aid Information**

General information pertaining to financial aid may be obtained online at www.montana.edu/wwwfa or by calling Financial Aid Services at (406) 994-2845.

#### **Financial Aid Deadlines for Summer Session 2018**

March 31, 2018	<b>Priority date</b> to submit MSU Summer Supplemental Application Form
June 30, 2018	<b>Final date:</b> FAFSA for 2017-2018 must be received by the federal processor
July 15, 2018	Last date to apply for summer financial aid, submit the summer supplement

Applications for Summer Session financial aid will not be accepted after the final date.

### **Student Services at MSU**

#### **Dean of Students Office**

174 Strand Union 994-2826

#### www.montana.edu/deanofstudents

The Dean of Students Office staff is available to students, parents, faculty, and members of the community for consultation about student-related matters, both academic and non-academic. We support a number of campus programs, including Fraternity/Sorority Life, Student Conduct, and Parent & Family Relations. We also provide support for students as they develop necessary skills as adult members of our academic community.

#### **ASMSU**

221 Strand Union 994-2933

#### www.montana.edu/asmsu

The Associated Students of Montana State University provides essential elements to a rewarding college experience: representation, education, entertainment, and service programs.

#### ASMSU services include:

ASMSU Senate (Student government)	994-2933
Bicycle Repair Shop	994-3621
Campus Entertainment (Art exhibits, concerts, films, comedy, lively arts & lectures)	994-4839
Day Care (See details, this page)	994-4370
Exponent Newspaper	994-3976
KGLT Radio	994-3001
Leadership Institute	994-7275
Legal Service (Inexpensive legal service)	994-2933
Outdoor Recreation	994-3621
Recreational Sports & Fitness	994-5000
Streamline Transit (Free transportation for students, staff, faculty, and the public)	587-2434
All other ASMSU services	994-2933

# Allen Yarnell Center for Student Success Career, Internship & Student Employment Services

177 Strand Union 994-4353

#### www.montana.edu/careers

Career, Internship & Student Employment Services offers a full range of career planning and recruitment services to students, alumni, the campus community, and employers. A primary goal of the office is to help students find satisfying careers and gain experience and skills which will clarify goals and facilitate entry into the job market. Services include:

HireABobcat.com (http://www.hireabobcat.com), a web page that
hosts student employment, internship, and full-time employment
opportunities.

- Career coaching to assist individuals with choice of major or career, job search preparation, career changes, or return to school (undergraduate or graduate programs).
- Internships in a variety of fields. We offer assistance arranging academic credit for internships.
- On-campus recruiting for summer, internship, and career positions
  with employers in business, industry, government, education, and nonprofit fields.
- Workshops on career planning, job searching, interviewing, resume writing, and various career options.
- A credential file service for teaching and graduate school candidates, plus all other students and alumni.

#### Office of Student Success

177 Strand Union 994-ROAR (7627)

#### www.montana.edu/success

The Office of Student Success believes in students and their potential. Students who visit our office learn to take an active role in owning and directing their education and future. The Office of Student Success offers several programs and services aimed at helping students succeed at MSU. These programs and services include:

- Student Success Advisors are expert learning strategists who meet oneon-one with students to teach them tools they can use to improve their academic performance.
- First Year Initiative (FYI) is here to assist first-year students make the transition to college.
- Second Year Initiative (2YI) is here to help second-year students
  navigate any difficulties they may have experienced in their freshman
  year.
- Student Early Alert System connects referred students with student success advisors who provide them with tools to improve their performance and help them formulate a success plan for the remainder of the semester.
- Workshops to help students get organized, learn the ins and outs of MSU, and connect with other students.
- ChampChange rewards undergraduate students for engaging in events and programs at MSU and the Bozeman community.
- SmartyCats Tutoring offers by-appointment tutoring for \$2.00 per session and FREE drop-in tutoring in the Library, 2nd floor, for a wide variety of courses.
- Learning Strategies (US 103). Experienced Office of Student Success staff members who specialize in learning strategies teach this one-credit
- Education, the World of Work and You (US 210). This three-credit course is a great resource for sophomore students who have not yet narrowed down their major or career plans.
- Return to Learn Return to Learn is a program designed for students seeking re-admission to MSU after taking a leave of absence. Return to Learn helps returning students navigate the re-enrollment process, understand the value of their return to school, and successfully reach their educational goals. We have staff dedicated to providing personalized assistance for each returning student.
- MSU 101 is offered several times each semester with the purpose of providing students with the tools they need to succeed at MSU.

#### Office of Financial Education

152 Strand Union 994-4388

www.montana.edu/financialeducation

The Office of Financial Education provides resources to MSU students and alumni to help them gain financial independence and learn techniques to achieve their life goals. We educate and support our students to ensure that they can manage debt and develop sound budgeting skills through one-on-one financial coaching, workshops and events, and informative resources.

#### **ASMSU Day Care Preschool**

Louise Shunk Day Care/Community Center 1295 West Garfield St. 994-4370

www.montana.edu/wwwasmsu/daycare.html

A Day Care Preschool provided by ASMSU and the University is available in the family housing area. Children ages 2 ½ until entrance into kindergarten of MSU students, staff and faculty are eligible. Children do not have to be toilet trained. The Day Care Preschool is open during Summer Session and the academic year.

The Day Care Preschool is an NAEYC accredited program.

Information pamphlets and applications are available at the Preschool or in Room 221 SUB.

#### **Disability, Re-Entry and Veteran Services**

180 Strand Union 994-2824 TTY: 994-6701

www.montana.edu/dry

- Disabled Student Services This program provides services for students with disabilities. Students desiring accommodations for a disability must request services through Disabled Student Services.
- Re-entry Student Services Non-traditional-age students (25 and over) can find direction, support, and assistance in this office.
- Veteran Support Center/Office of Veteran Services (185 Strand Union, 994-3661) The center is dedicated to a variety of activities for MSU's student veterans, along with managing GI Bill benefits for all qualified veterans, dependents, and Guard/Reserves.

#### **Financial Aid Services**

183 Strand Union 994-2845

www.montana.edu/wwwfa

To assist students in financing a college education, the Office of Financial Aid Services administers loan, grant, scholarship and work study programs from federal, state, university and private sources.

In order to apply for financial assistance for the summer session, you must complete

- 1. a 2017-2018 Free Application for Federal Student Aid (FAFSA)
- 2. a Summer Supplemental Application Form

Your completed FAFSA must be received by the Federal Processor no later than June 30, 2018. **This is an absolute deadline**. Summer Supplemental Forms may be obtained at the Office of Financial Aid Services or online at www.montana.edu/wwwfa.

The priority date for summer financial assistance is March 31, 2018. Your summer financial aid application will be reviewed only if information from your 2015-2016 FAFSA is available.

The last day to apply for summer aid is June 30, 2018. Applications or requests for summer term financial aid will not be accepted after that date.

## Hosaeus Fitness Center/Recreational Sports & Fitness

994-5000

www.montana.edu/getfit

The Hosaeus Fitness Center is available to students taking seven or more credits (membership is paid through University fees). Students taking six credits or less may 'elect' to use the gym by paying the fee for membership at the Cashier's Window on the first floor of Montana Hall.

Summer campus interns, student spouses, and University faculty and staff may buy memberships directly from the Rec Sports Office, Rm. 120.

#### **Summer Building Hours for Hosaeus PE Complex**

- Monday-Friday, 6a.m.-8p.m.
- Saturday (beginning in May) 9a.m.-1p.m.
- Closed Sunday
- Closed Graduation weekend, Memorial Day weekend, and 4th of July weekend

#### **Pool Hours**

- Lap Swim, Monday-Friday, 11a.m.-1p.m., Tues. and Thurs.6:30a.m.-7:30a.m.
- Lap/Open Swim, Monday-Friday, 4-6:30p.m.; Saturday, 10a.m.-12 noon
- · Sunday closed

#### **Facility Features**

- 3 Full Gyms/6 Courts
- 25-Yard/8-Lane Pool
- Weight Area
- 20-ft. Climbing Wall
- Martial Arts Room
- 2 Air-Conditioned Group Fit Rooms
- 75+ Pieces of Cardio Equipment
- 9 Racquetball Courts w/ Handicap Access
- 1 Squash Court
- · Indoor Running Track
- Men's & Women's Sauna
- Locker and Shower Facilities
- Sustainable Energy Effort Treadmills and Ellipticals

#### Rec Sports Equipment Room (994-5500)

- Monday-Friday, 7a.m.-8p.m.
- Equipment check-out
- Court reservations
- Towel service

#### **Services**

- Tours
- Fitness equipment orientation
- Group fitness classes
- Personal training
- Instructional programs
- Massage

- Workshops
- Children's programs

#### Website & Facebook

- Please check our website for the latest information on classes and building hours: www.montana.edu/getfit
- Find us on Facebook! www.facebook.com/MSURecSports (http://www.facebook.com/MSURecSports)

#### Check out our App

 Download our free rec app. Up-to-date information on building and pool hours, class schedules, news and programs.

#### **International Programs Office**

Fourth Floor Culbertson 994-4031

The Office of International Programs is the focal point for international activities on campus. The office offers services to foreign students and scholars as well as to U.S. students interested in studying abroad. The International Opportunities Resource Center, within the Office of International Programs, has a wide variety of resource materials to assist students with study, travel and work opportunities around the world.

During the summer, several short-term study abroad programs are offered.

For more information about specific opportunities call (406) 994-5719.

Incoming short-term programs involving students and faculty from many foreign countries are also held on the MSU campus during the summer months. Some of these programs include opportunities for local families to host international visitors. For more information about hosting, please call (406) 994-7602.

The A.C.E. Language Institute at MSU works closely with the Office of International Programs to provide professional English-as-a-Second-Language classes to international students throughout the year, including summer. The Institute's staff offers orientation and on-going student services to new arrivals.

For more information on course schedules call the Institute at (406) 585-9832

#### **Outdoor Recreation Program**

West Lincoln St. (adjacent to the Roskie Hall parking lot and intramural fields) 994-3621

www.montana.edu/outdoorrecreation

The ASMSU Outdoor Recreation Program offers equipment rentals, group outings, resource area, bicycle and ski workshop, and special events. MSU students, faculty, staff, families and affiliates are eligible to use the services.

#### **Equipment Rental**

Tents, sleeping bags, backpacks, rafts, canoes, mountain bikes, stoves, lanterns, and other assorted gear are available. Rates are based on half-day, daily, weekend, or extended rental periods.

#### **Group Outings**

A variety of trips are offered that accommodate many interests and skill levels. Activities include hiking, backpacking, camping, rafting, canoeing, kayak touring and other pursuits. Destinations range from local recreation areas to Yellowstone, Grand Teton, and Glacier national parks. Nominal fees are charged to defray costs of transportation, group equipment and other organizational expenses.

#### **Resource Area**

Maps, trail guides, magazines and other informational materials are available for individuals interested in planning their own personal adventure.

#### **Bicycle Workshop**

The Bicycle Workshop provides the opportunity for individuals to maintain and repair personal equipment. Options include:

- Do It Yourself free use of work area and tools
- Technical Assistance an attendant is on duty periodically
- Drop-Off Service available for individuals who prefer to have a technician do the work (inquire for rates). A limited supply of parts is also stocked for resale.

Further information about the Outdoor Recreation Center and its services may be obtained by calling 994-3621 or by visiting the website listed above.

#### **Renne Library**

994-3171

www.lib.montana.edu

Conveniently located in the center of campus, Renne Library has a full range of library collections and services for students and faculty. Knowledgeable and friendly faculty librarians and library staff provide assistance using the collections, access to databases world wide, and instruction for individuals and groups. The MSU Libraries' collections support teaching, learning and research at MSU, with particular emphasis in the fields of agriculture, science, health and technology.

A wealth of information is available around the clock via the library Web page (www.lib.montana.edu), including the online catalog, electronic indexes and many full-text e-journals and e-books. Personalized one-on-one research assistance is available to students on a drop-in basis at the reference desk, or online via email or chat. Moreover, the Libraries offer the Research Assistance Program, or RAP: students may make an appointment for a consultation with a reference librarian who will thoroughly explore research options relating to a specific assignment or class.

Renne Library is open to the public.

#### **Strand Union Building**

994-3082

www.montana.edu/sub

The Strand Union Building (SUB) is the center of campus activity at MSU. The SUB provides daily services, amenities, and out-of-classroom opportunities for informal interaction among members of the college community. Through student government, organizations, and employment, the SUB provides a cultural, social, and recreational environment to complement classroom and study experiences.

Focused on serving the needs of students, staff, faculty and University guests, the Strand Union has three student-managed, student-staffed service centers:

- "ASK US" Information Center/Ticket Office—campus information, lost and found, ticket sales, stamps, mail drop, and fax. Visit www.montana.edu/askus for MSU Events & Schedules, MSU Info and Directories, Community Info, and Other Helpful Sites.
- CopyCats—convenient copy service, color copies, and digital output (from CD or flash), postal, laminating and binding services, and class notes.

 Recreation Center—bowling, billiards, foosball, shuffleboard, videos, ESPN, PS3, and snacks. Open Summer Session Mon.-Thurs., 12:00 noon-10:00 p.m.; Fri., 12:00 noon-5:00 p.m.

Additional services in the Strand Union include:

- · Full service banking
- Automated banking ATMs
- Federal Express drop box
- · Coin-op copier
- Meeting rooms (seating from 10-1,700)
- · Public access computers with printing
- Student and TV Lounges
- MSU Cat Card—University ID, on-campus debit card, access to halls and Rec Sports Center, and student printing
- MSU Bookstore—textbooks, MSU merchandise, gift items, computer and art supplies
- Strand Union Food Services:
  - Catering—University-wide coffee breaks, buffet and served meals
  - SRO Espresso—'Standing Room Only' espresso bar
  - Sweet Shop/Freshëns—homemade cookies, fudge, candy, popcorn, smoothies, frozen yogurt and ice cream
  - Union Market—breakfast and lunch entrees, soup, salad bar, FatCat bakery items, Asian and Mexican food

#### **University Health Partners**

University Health Partners www.montana.edu/health

Following an integrated, collaborative model, University Health Partners (UHP) unites the components of health and well-being for MSU students including prevention, health promotion, public health, medical services, dental services, and counseling & psychological services.

UHP Medical Services, Dental Services and Counseling & Psychological Services are located in the Swingle Building just east of the Strand Union Building. The Office of Health Advancement is located in two houses at 1102 and 1106 S.  $6^{\rm th}$  Ave. The VOICE Center is located in 370 Strand Union Building (SUB) on the third floor above Leigh Lounge and Avogadro's Number.

Summer Session students who register for seven or more credit hours are required to pay the health fee and are thus eligible to use UHP services during the summer semester. Students taking fewer than seven credit hours have the option of paying the health fee.

For immunization requirements and forms, please consult the UHP Medical Services web site listed below.

For specific information about each service or program, please refer to the web site or phone number below.

Medical Services (406) 994-2311 montana.edu/health/medical

Counseling & Psychological Services (406) 994-4531 montana.edu/counseling

Dental Services (406) 994-2314 montana.edu/dental Office of Health Advancement (406) 994-4380

montana.edu/oha/

VOICE Center (406) 994-7069 montana.edu/voice

#### Cat Card (Campus ID Card)

#### Cat Card Office

Hedges Complex, Rm 31 (below Miller Dining Commons)

(406) 994-CARD (994-2273) www.montana.edu/catcard

The Cat Card is a photo ID card which serves as campus identification, a meal plan card, library card, campus debit card\*, and access control card. Deposits can be made at the Cat Card Office, Hedges Complex, Rm 31 (below Miller Dining Commons); or online at www.montana.edu/catcard.

- \* Purchases may be made using Cat Card as a debit card at any of the following locations on campus:
  - Ask Us Information Center
  - ASMSU Intramurals
  - · ASMSU Outdoor Recreation
  - · Bobcat Ticket Office
  - Brewed Awakenings
     Business Office
  - CopyCats
  - Dental Clinic
  - Library & Library Photo Copies
  - MSU Bookstore
  - Rec Center
  - Residence Hall dining facilities
  - Residence Hall laundry facilities
  - · Residence Life Cashier's Office
  - Strand Union Food Service facilities (Avo's, Jim Bridger Grill, Freshens, Sola @ Jabs Hall, SRO Espresso, Sweet Shop, Union Market, Wild Flour Pizza & Pasta)
  - Student computer labs for printing
  - Student Health Service
  - Student Printing
  - Testing ServicesUniversity Police

# **Important University Policies**

# Non-Discrimination Policy and Discrimination Grievance Procedures

Montana State University is committed to providing a working and learning environment free from discrimination. Discrimination and harassment based on a person's race, color, national origin (ancestry), sex, sexual preference/orientation, gender identity, gender expression, transgender, marital or parental status, age, creed, religion or political beliefs, mental or physical disability, genetic information or status as a veteran is prohibited.

Any student, employee, applicant for employment or admission, participant in University activities or other person who believes they experienced discrimination in violation of the policies of the university may file a complaint under the university Non Discrimination Policy and Grievance Procedures. Refer to the Office of Institutional Equity (OIE) website to submit a complaint online www.montana.edu/equity/discrimination/ or contact OIE at (406) 994-2042, Hamilton Hall Room 118.

All employees, except those operating under a license or state law which provides confidentiality or privilege, are required to report known or suspected discrimination, harassment, sexual misconduct, dating violence, domestic violence, stalking and retaliation. Every member of the MSU community and our guests are strongly encouraged to report these issues.

Retaliation is action taken by someone against a person because that person has opposed behavior that is prohibited by MSU Policy, including if the person filed a complaint, testified, assisted, or participated in any manner in an investigation or proceeding under the Policy. This includes action taken against a bystander who intervened to stop or attempt to stop discrimination, harassment, or sexual misconduct. Retaliation includes intimidating, threatening, coercing, or in any way discriminating against an individual because of their complaint or participation.

#### **Sexual Harassment**

Sexual harassment is unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature, including sexual misconduct. Sexual harassment can by perpetrated by anyone regardless of their sex or gender identity. Consistent with the law, MSU policy prohibits two types of sexual harassment:

- Tangible Employment or Educational Action: This type of sexual harassment occurs when the terms or conditions of employment, educational benefits, academic grades or opportunities, living environment or participation in a University program is conditioned upon, either explicitly or implicitly, submission to or rejection of unwelcome sexual advances or requests for sexual favors, or such submission or rejection is a factor in decisions affecting that individual's employment, education, living environment, or participation in a University program. Generally, this type of sexual harassment will involve agents or employees with some authority from the University.
- Hostile Environment: Hostile Environment based on a protected class status, including sex, gender identity, gender expression, and/or sexual orientation exists when harassment:
  - when such conduct has the purpose or effect of unreasonably interfering with an individual's employment or academic performance.
  - is sufficiently serious (i.e., severe, pervasive, or persistent) and objectively offensive so as to deny or limit a person's ability to

- participate in or benefit from the University's programs, services, opportunities, or activities; or
- A hostile environment can be created by anyone involved in a university program or activity (e.g., administrators, faculty members, students, and even campus guests). Mere offensiveness is not enough to create a hostile environment. Although repeated incidents increase the likelihood that harassment has created a hostile environment, a serious incident, such as a sexual assault, even if isolated, can be sufficient. In determining whether harassment creates a hostile environment, the harassment will be considered not only from the perspective of the individual who feels harassed, but also from the perspective of a reasonable person in a similar situation. Also, the following factors will be considered:
  - The degree to which the conduct affected one or more students' education or individual's employment;
  - The nature, scope, frequency, duration, and location of the incident or incidents;
  - The identity, number, and relationships of the persons involved:
  - The perspective of a "reasonable person" in the same situation as the person harassed; and
  - The nature of higher education.

# Title IX of Education Amendments of 1972 (Title IX)

Title IX of the Education Amendments of 1972 ("Title IX") and the Montana Human Rights Act prohibit discrimination on the basis of sex in education programs and activities. Discrimination based upon sex can include sexual harassment or sexual violence. Title IX also prohibits gender-based harassment, which may include acts of verbal, nonverbal, or physical aggression, intimidation, or hostility based on sex or sex-stereotyping, even if those acts do not involve conduct of a sexual nature.

#### The Title IX Coordinator for Montana State University is:

Jyl Shaffer Office of Institutional Equity Montana State University P.O. Box 172430 Bozeman, MT 59717-2430

Tel: (406) 994-5326 Fax: (406) 994-7999

E-mail: oie ( oie@montana.edu)@montana.edu (oie@montana.edu)

Location: 114 Hamilton Hall http://www.montana.edu/equity

#### **Consensual Relationships**

http://www.montana.edu/policy/discrimination/

There are inherent risks in any romantic or sexual relationship between individuals in unequal positions (such as faculty and student, supervisor and employee). These relationships may be less consensual than perceived by the person whose position confers power. A consensual romantic relationship in which one party has supervisory or evaluative responsibilities for the other is a conflict of interest and, as such, and as provided in the University Conflict of Interest (COI) Policy the party in the evaluative or supervisory position must promptly disclose the relationship to his or her supervisor and to the campus official responsible for COI reporting. The supervisor and the University official responsible for COI management shall take steps to ensure that the situation is appropriately managed in accordance with the campus COI Policy. This could result in the removal of the employee or student from the supervisory or evaluative responsibilities by their romantic

partner. As provided in the COI Policy, an employee's failure to promptly disclose a conflict of interest may result in discipline.

#### **Non-Discrimination Policy Based on Disability**

The University is committed to eliminating disability-based discrimination against qualified persons with disabilities and to making appropriate reasonable accommodation for any known disability that interferes with an applicant's ability to compete in a selection process, an employee's ability to perform the essential functions of a job, a student's ability to meet the essential requirements of an academic program, or a person's ability to benefit from a University service or participate in a University sponsored or hosted event.

All applicants, employees, students or participants, including those with disabilities, are expected to be able to perform the essential functions of the position or program, with or without reasonable accommodation.

It is the responsibility of the applicant, employee, student or participant with a disability to inform the appropriate person, as indicated below, that an accommodation is needed:

- 1. To request an accommodation in a job application or interview process, contact: The hiring authority or chair of the search committee of the search, as indicated on the vacancy announcement or contact Human Resources, (406) 994-3651. www.montana.edu/hr/
- To request accommodation in employment, including concerns about job duties, contact: The direct supervisor or the Office of Human Resources, (406) 994-3651 or www.montana.edu/hr/
- 3. To request an accommodation when applying for admission to the University, contact: The Director of Admissions, (406) 994-2452, if applying for undergraduate admission; or the Dean of the Graduate School, (406) 994-4145, if applying for graduate admission.
- 4. To request an accommodation when applying for housing or to request housing accommodation, contact: Residence Life and University Food Service, (406) 994-2661, if applying for housing in the residence halls; or Family Housing, (406) 994-3730, if applying for family or graduate housing.
- 5. To request accommodation related to an academic program or requirement, class, or other educational opportunity or activity, contact:

The Office of Disability, Re-Entry and Veteran's Services Room 155 Strand Union Building (406) 994-2824.

 To request public accommodation or accommodation to participate in a University sponsored or hosted event, contact: The Event Sponsor or the University Compliance Officer, (406) 994-2042.

#### **University Compliance Officer**

The University Compliance Officer and the office responsible for the University's compliance efforts is:

#### Director of the Office of Institutional Equity

Montana State University Hamilton Hall Room 118 P.O. Box 172340 Bozeman, MT 59717-2430

Phone: (406) 994-2042 Fax: (406) 994-7999 Email: oie@montana.edu www.montana.edu/equity/ Procedures for filing complaints of discrimination, harassment or violations of Title IX are available electronically at: http://www2.montana.edu/policy/affirmative\_action/ or in print from the address above.

# **Summer Housing and Meals**

#### **Residence Halls & Suites**

#### Residence Life/Culinary Services

Located in Miller Dining Commons on the ground level Hours: 8:00 a.m.-5:00 p.m., Monday-Friday (closed weekends and all state and federal holidays) (406) 994-2661 housing@montana.edu www.montana.edu/reslife

Stay in a residence hall during Summer Session for maximum convenience to your Summer Session classes!

Summer residence hall housing in both traditional double and single rooms as well as suite-style spaces is available. Each living space is furnished with beds (bed linens at your request), desks and chairs, as well as dressers and closets. All residence halls have cable and high-speed internet via ResNet. Residents also have access to public kitchen spaces, computer kiosks, laundry facilities, game rooms and TV lounges.

Residence halls are located on campus providing convenient access to Miller Dining Commons, Hosaeus Student Recreation Center, and the Intramural Fields.

Hall and room assignments are made beginning in April on a first-come, first-served basis. All halls and rooms are non-smoking, inclusive of private rooms and public area space.

#### Residence Halls will open on Sunday, May 13, at 9:00 a.m.

Please visit the Residence Life web site at www.montana.edu/reslife for a complete listing of residence hall offerings.

Estimated room rates listed below are based on a double occupancy room. Single occupancy rooms will be available on a limited basis, per request. Single room rates will be available February 2018.

#### **Estimated Room Rates (Based on a Double Room)**

4-week session (May 13-June \$364.00\* 8, June 10-July 7, July 8-August 4)

6-week session (May 13-June \$574.00\* 23, June 24-August 4)

8-week session (May 13-June \$770.00\*

7, June 10-August 4)

12-week session \$1,148.00\* Interim Housing (May 5- \$112.00\* May 13)

prices include ResNet Internet service.

Full Summer Contract\*\*

\* All residence halls have a \$15 Social Fee established by the Residence Hall Association, which is assessed in conjunction with room and board payments each semester. The Social Fee is assessed to every student living in the residence halls and is nonrefundable. Room and Board

\$1,526.00

In order to be eligible for the full summer housing contract, students must have lived in the residence halls during spring semester 2018 and have a 2018-19 housing application on file. Early cancellation of contract (either summer or fall) will result in penalties.

#### **Credit Requirements**

Students are not required to have a minimum number of credits, but are required to be enrolled in a summer course at the time of their housing to be eligible to live in the residence halls if they are not returning to the residence halls for the fall 2018 semester. Students that live in the residence halls in the spring 2018 semester and are returning to the halls for the fall 2018 semester do not need to be taking classes to live on-campus during the summer.

#### **Summer Housing Applications and Contracts**

Applications will be available starting February 1 on the Residence Life website at www.montana.edu/reslife. Please call the Residence Life Office at (406) 994-2661 for more information. Notification of room assignments will be sent mid-April. Room charges are due within the first four days of check-in and are separate from registration fees. Summer Session housing will be available starting on Sunday, May 13, at 9:00 a.m.

#### **Culinary Services**

Miller Dining Commons is the dining hall available for the summer. Residents are not required to contract for a meal plan during the Summer Session. Meals are available by selecting one of the four plans below that are loaded onto the CatCard or on an individual "pay-as-you-go" basis at the dining hall entrance. Every meal purchased is all-you-care-to-eat with a wide variety of choices. Miller Dining Commons will be open 7am to 7pm Monday-Friday for the summer session.

Availability of meals throughout Summer Session on the weekends is dependent on conference activity. Hours and days of service will be posted at the front desks.

#### **Meal Plan Options**

(purchased at the Residence Life Cashier's Office):

25 meals	\$225.00
50 meals	\$425.00
75 meals	\$581.25
100 meals	\$700.00

#### **Individual Meals**

(purchased at the entrance to Miller Dining Commons):

Breakfast	\$8.00
Lunch	\$10.00
Dinner	\$11.00

For more information about meals, visit the Food Service Web site at www.montana.edu/culinaryservices.

#### **Family & Graduate Housing**

Family & Graduate Housing Office

1502 West Garfield Bozeman, MT 59715 (406) 994-3730 fgho@montana.edu www.montana.edu/fgh

Family & Graduate Housing consists of 587 apartments located in eight apartment communities (Paisley Court, Branegan Court, West Julia Martin, McIntosh Court, Grant-Chamberlain Drive, Westside Houses, Peter Koch Tower and Nelson Story Towers). All units are within walking distance to campus facilities.

The Family & Graduate Housing Office (FGHO) sponsors events for children, non-student spouses, students, and the entire family. Enjoy a

variety of events such as barbecues and concerts throughout the summer, as well as a week's worth of "welcoming" activities at the beginning of the academic year. Child care is available through the ASMSU Daycare Center (located near Family & Graduate Housing) during Summer Session as well as fall and spring semesters. Children's playgrounds are conveniently placed near each apartment community. A monthly newsletter is distributed to apprise tenants of upcoming Family & Graduate Housing events and pertinent seasonal information.

#### **Eligibility**

FGHO welcomes applications for both "summer only" and "year-round" qualified students. A student may reside in Family & Graduate Housing with individuals whom the student has or shares a legal responsibility. Examples of such relationships include, but are not limited to: married students, students with dependent children, students with dependent parent(s), and students with disabilities who require a live-in personal care attendant.

Single graduate students, second-degree undergraduates, and undergraduates who have earned more than seventy-two (72) credits, may choose to reside in one-bedroom apartments located in Peter Koch Tower and Nelson Story Towers. They may also choose to reside either alone or with a same-gender student roommate in Grant Chamberlain Drive.

At the time of occupancy, student applicants must provide documentation of their legal relationship to those persons residing with the student. Such documentation could include: a marriage license, children's birth certificate(s), custody decree and/or letter of guardianship, or other documentation sufficient to establish a legal responsibility. Second-degree undergraduate students must provide a copy of their degree from an accredited four-year institution. Individuals who are not accompanied by their legal dependent and are not a graduate, second-degree undergraduate or upperclassmen student with seventy-two (72) completed credits or more may be accommodated in the residence halls.

#### **Credit Requirements**

In order for a new student to be eligible for Family & Graduate Housing, undergraduate students must be registered for a minimum of nine credits; graduate students must be registered for a minimum of five credits. Any change in student status must be immediately reported to FGHO.

For a description of housing, including floor plans, rental rates and building descriptions, visit the Family & Graduate Housing Buildings Web page at www.montana.edu/fgh/buildings.

#### **Summer Application for Housing**

All FGHO applications must be accompanied by a \$100.00 application fee. Written notice must be given to cancel the application in order to receive an application fee refund, less a \$50.00 processing fee. All housing assignments and preferences are subject to availability. It is highly recommended that you send your application well before the desired date of occupancy. Assignments are prioritized by date of application.

You can apply online or print an application through the FGHO Web site at www.montana.edu/fgh.

If you choose to print and mail your application, please send the FGHO application plus the \$100.00 application fee to:

Cashier's Office Hedges Complex Montana State University P.O. Box 172080 Bozeman, MT 59717-2080

### **Vehicle Registration**

#### **University Police Department**

Roy Huffman Building Corner of S. 7th & Kagy 994-2121

www.montana.edu/wwwmsupd

All students, faculty, staff, and visitors must register all motor vehicles they park on campus and university-controlled streets. You should register your vehicle immediately upon your arrival on campus and obtain a copy of the vehicle regulations by going online at: http://www.montana.edu/parking/buyingapermit.html and following the prompts to buy a permit. You can also enter the site by logging in to your MyInfo account and selecting the Parking tab. Visitors may purchase day permits at the Visitor Information Booth at S. 7th & Grant St. or at the University Police Department.

# **Vehicle Registration Fees for Summer Session ONLY**

(applicable for the 2017-2018 academic year)

R1	\$401
R2-R4	\$298
R5-R9, G	\$250
SB lots	\$98
E lots	\$98
F lot	\$20
FH	\$57
Motorcycles	\$38

Hang tags are available for \$5.00 per day and may be used in any campus lot except gold signed reserved parking.

Please check the Parking Services website (http://www.montana.edu/parking/fees.html) for parking pricing for Fall and Spring semesters and for more information on fines and violations.

#### **Bicycles**

Bicycle permits are free and registration is recommended for any bicycle on campus to aid in the return of stolen or lost bicycles.

Bicycle Restrictions:

- Are not allowed in buildings
- May not be chained to trees, railings, signs, etc.
- May not be parked where they are a hazard to pedestrians

Bicycles in violation of these restrictions will be impounded and owners will be cited by the University Police.

### **Summer Offerings**

Summer Session 2018 brings a variety of credit and non-credit opportunities to a diverse audience, including continuing MSU students, summer-only students, and adult learners.

- Schedule of Courses (p. 29) Find information on course numbering and course and building abbreviations used across campus.
- Summer Online Courses (p. 31) Online courses offer a flexible alternative to attending the traditional classroom by delivering a variety of educational resources via the Internet.
- Summer Core Courses (http://www.montana.edu/summer/ corecourses.html) Find information on core courses offered this summer.
- Preliminary Course Listing (p. 32) The following preliminary course listing was compiled in February, 2018. Since that time, some courses may have been added and other courses cancelled.
- Summer Graduate School Offerings (p. 10) For detailed information about The Graduate School at MSU, visit the webpage (http:// www.montana.edu/gradschool). The master's, doctoral, and certificate offerings are listed below, along with links to each academic department's webpage. To find out more about a specific graduate program, please contact the department.
- Summer Programs for Young People (p. 79) For information on summer programs and activities for young people.

#### **Schedule of Courses**

Following (p. 32) is the Summer Session 2018 preliminary course listing as of February 2018.

Please refer to the Summer Session class schedule (https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW\_SelSchClass) online for the most current information. The schedule will be mostly complete by February 5, 2018. Since that time, some courses may have been added and other courses cancelled. The schedule will include detailed course information regarding sessions of offerings, meeting days, times and locations, instructors, mode of instruction (on-campus or online), special fees, and class enrollment numbers.

4x4 Session Days of Instruction: In the case where a holiday falls within a 4x4 session, that session will end on a Friday.

### The 2018 Summer Session Schedule of Classes may be accessed online as follows:

- 1. Go to Web site: www.montana.edu (MSU home page)
- Click on: MyInfo (bottom left-hand corner of page), Schedule of Classes
- 3. Select term: 2018 Summer Session
- 4. Select subject: Highlight one or more consecutive subject areas, or click and drag to highlight all subject areas
- 5. Click on: Search Class (bottom left-hand corner of page)

#### **Course Offering Contingencies**

Montana State University strives to offer all courses listed in the online class schedule.

The schedule will contain a few new courses offered on a trial basis. A notation stating a minimum enrollment number will be included with each; if this number is not reached, the course may be canceled. Also, in the rare

case when an instructor is not available due to a last-minute emergency, courses may be canceled.

Some courses are offered on a to-be-arranged basis, in which case class times, days, location and the instructor will not appear in the course schedule. Check with the offering department for details.

#### **Numbering System**

001-099	Courses below college level; no college credit given
100-199	Freshman - Lower Division
200-299	Sophomore - Lower Division
300-399	Junior - Upper Division
400-499	Senior - Upper Division
500-599	Graduate Courses
600-699	Graduate Courses

#### **Core Courses**

The mission of MSU's core curriculum is to enhance students' use of multiple perspectives in making informed critical and ethical judgments in their personal, public and professional lives through inquiry and research experiences. Details regarding the core curriculum may be found at www.montana.edu/www.cat/requirements/reqs4.html.

For incoming freshmen and current high school students accepted into the Early Admission Program, Summer Session core courses offer a jump start on a college career as well as an introduction to the level of work that is expected as a student at MSU. The courses also serve as a catchup opportunity for continuing students who need to progress toward or complete their core requirements.

A list of Summer Core Course Offerings can be found here (http://www.montana.edu/summer/documents/Summer%202018%20Core%20Courses.pdf).

Core courses are designated by a letter following the course number, e.g., WRIT 101W. The following letters are used to specify the core groups:

US	University Seminar
W	College Writing
Q	Quantitative Reasoning
D	Diversity
CS	Contemporary Issues in Science
IA	Arts Inquiry or
RA	Arts Research
IH	Humanities Inquiry or
RH	Humanities Research
IN	Natural Science Inquiry or
RN	Natural Science Research
IS	Social Science Inquiry or
RS	Social Science Research
R	Additional Research and Creativer Experience Courses

#### Classification of Courses in the Course Bulletin

In the second line of each course description in the MSU Course Bulletin, following the number of credits for the course, there appears a course classification designation which indicates the mode of instruction for that course. In some cases, two classifications are listed along with the number of credits in each.

Following is an explanation of course classifications.

**LEC**—**Lecture**: Presentation of course material by the instructor, utilizing the lecture method.

**LAB—Laboratory**: Instructing and supervising students in laboratory investigations.

**STU—Studio**: Instructing and supervising students in studio investigations.

**RCT/DIS—Recitation-Discussion**: Presentation of course materials designed to involve students in recitation and/or discussion.

**SEM—Seminar**: Students share, with the instructor, responsibility for preparation and presentation of course material.

**IND**—**Independent Study**: Directed study and/or research on an individual basis, under the supervision of an instructor.

#### **Graduate Credit**

Courses which may be taken for graduate credit are designated by a 500 or 600 number.

#### **Uniform Course Numbers**

Uniform numbers are used in all departments.

294, 394, 494, 500 and 594	Seminar
<b>292</b> , <b>492</b> , <b>570</b> and <b>592</b>	Individual Problems (individual projects)
291, 491, 580 and 591	Special Topics (group or class project)
290R	Undergraduate Research
475	Undergraduate Projects
490R	Undergraduate Scholars Program
298, 498, 576 and 598	Internship
575	Graduate Research Paper (profesional paper/project)
588	Professional Development
589	Graduate Consultation
590	Master's Thesis
689	Reading and Research
690	Doctoral Thesis

These courses may be repeated for credit. Specific titles of Special Topics courses are listed in the Schedule of Classes, on the Class Rolls and on the student's permanent record.

Some courses such as Special Topics, Individual Problems, and Internship are offered for varying amounts of credit, e.g., 1-5. A maximum number of credits is also imposed, e.g., *Maximum 6 cr.* A student may repeat such courses to earn the maximum number of credits by registering for two or more projects with credits for each project totaling the maximum allowed. Credits earned beyond the maximum cannot be applied toward graduation.

#### **Special Topics & Individual Problems Courses**

The maximum number of credits allowed toward graduation of 291 and 491 courses in each rubric is 12, and the maximum number of 492 credits in each rubric is six. Some departments have established lower limits than these, and the student is responsible for checking the specific course listings to see that he or she does not exceed the allowable number of credits. The

maximum number of 570 credits applicable to a graduate degree depends upon the degree. No 492 credits are applicable to a graduate degree.

#### **Undergraduate Course Prerequisites**

Courses beyond the freshman year usually have "prerequisites." This means that certain lower-level courses must be taken before the student may register for the advanced course.

The prerequisite for undergraduate courses may be "consent of instructor." The student must secure the permission of the instructor of the course before registering for it. "Consent of instructor" is usually required for courses in which there is limited laboratory space and/or equipment or in which specific skills are required.

#### **Graduate Course Prerequisites**

Courses at the 500 and 600 levels may be taken only by qualified students. Unless otherwise stated under course prerequisites, graduate-level courses are open only to:

- Students with graduate standing (post-baccalaureate students admitted to The Graduate School, enrolled in non-degree status or second bachelor's degree candidates)
- 2. Seniors with a cumulative grade point average of 3.25 or higher
- Other seniors who have a petition approved by the head of the department offering the course, the head of the student's major department, and the Dean of the Graduate School.

Some courses are limited to students with graduate standing or certain levels of graduate standing. These specific conditions are indicated within the course prerequisite or description statements. Students below senior standing are not eligible to take graduate-level courses.

#### Session Dates

May-start 4x4 session	May 14 - June 7
June-start 4x4 session	June 11 - July 6
July-start 4x4 session	July 9 - August 2
Fourth 4x4 session	July 26 - August 21
First 6-week session	May 14 - June 22
Second 6-week session	June 25 - August 3
Full 12-week session	May 14 - August 3
Intersession	June 11 - August 3*

<sup>\*</sup> Intersession is designed for courses of varying length

#### **Abbreviations**

The following abbreviations are used in the Schedule of Courses:

M	Monday
T	Tuesday
W	Wednesday
R	Thursday
F	Friday
S	Saturday
IJ	Sunday

#### **Building Abbreviations**

ABB	Animal BioScience Bldg.
AJM	Arthur J. M. Johnson Hall
BARNH (Previously	Barnard Hall (Previously EPS building)

DELL	D 1 D: 111
BFH	Breeden Fieldhouse
BOZ	Bozeman (Nursing, Deaconess Hospital)
СНВСН	Chemistry/Biochemistry Bldg.
CHVR	Cheever Hall
COBH	Cobleigh Hall
CU	Culbertson Hall
DF	Danforth Chapel
GH	Gaines Hall
HAM	Hamilton Hall
HANH	Hannon Hall
HR	Hapner Hall
HAYN	Haynes Hall
HH	Herrick Hall
HFC	Marga Hosaeus Fitness Center
HN	North Hedges Residence Hall
HOWH	Howard Hall
HU (MSU Police Station)	Huffman Building-MSU Security & Police Station
JABS	Jake Jabs Hall
JONH	Leon H. Johnson Hall
JNST	Iohnstone Center
LEWH	Lewis Hall
LG	Langford Residence Hall
LINH	Linfield Hall
MARL	Marsh Research Laboratory
MBB	Molecular Biosciences Building
MCH	McCall Hall
MH	Montana Hall
MILLER	Miller Dining Hall
MSP	Miller Stock Pavilion
MU	Museum of the Rockies
NS	Nursery School
PBB	Plant BioScience Bldg.
PEC	Physical Education Complex
PLGR	Plant Growth Center
REID	Reid Hall
RLIB	Renne Library
ROBH	Roberts Hall
ROM	Romney Gymnasium
SB	S.O.B. Barn
SHC	Student Health Center
SHER	Sherrick Hall
SR	Safety & Risk Management
SUB	Strand Union Building
TAYH	Taylor Hall
TCE	Temporary Classroom East
TCW	Temporary Classroom West
THTR	Black Box Theater, Strand Union
TRAP	Traphagen Hall
VCB	Visual Communications
WIL	Wilson Hall
44 II.	11 110OH 1 1GH

#### **Summer Online Courses**

Online courses offer a flexible alternative to attending the traditional classroom by delivering a variety of educational resources via the Internet. Whether you're working a summer job, leaving Bozeman for a few months, or just trying to fit an extra class into your schedule, you can still begin or continue your MSU education by enrolling in one or more online courses.

*Please note:* The courses listed in the Preliminary Course Listing (p. 32) reflect the summer class schedule as of February 2018. Since that time, some courses may have been added and other courses cancelled. For the most current information, please refer to the following websites:

- For Registrar courses: See the 2018 Summer Schedule of Classes (https://atlas.montana.edu:9000/pls/bzagent/ bzskcrse.PW\_SelSchClass)
- For Academic Technology and Outreach courses: Go to http://eu.montana.edu/online
- Summer Online Courses Offerings (http://www.montana.edu/ summer/documents/Summer%202018%20online%20courselists.pdf)

#### **How Do Online Courses Work?**

Online courses—also known as distance delivery courses—use a personal computer to connect participants from across the country and around the world via the Internet. Distance courses at MSU are offered on Desire2Learn, an online course delivery tool that allows students and instructors to interact with each other as a learning community on the Web.

Generally speaking, in an online course, you can expect to:

- · connect via the Internet with a personal username and password
- participate in a course with set start and end dates (many classes have been developed with a structure similar to traditional on-campus courses with due dates tied to assignments, readings, and other courserelated activities)
- proceed through course requirements together with your class, but be able to access the course at a time of day that is convenient to you
- make a time commitment that is about the same as for an on-campus course

#### Is Online Learning Right for Me?

Learning at a distance requires a different set of resources than traditional face-to-face learning. If you're thinking about taking an online course but are not quite sure if you're ready to make the commitment, take the interactive quiz at http://eu.montana.edu/online/quiz to help you decide.

Whether it's face-to-face or online, a typical three-credit course offered over six weeks requires approximately 20 hours of time per week (in the classroom and outside of class). Such a course is equivalent to a half-time load.

Online instruction provides a level of flexibility that students find attractive. Also, with appropriate effort, the level of student-to-student and student-to-teacher interaction can exceed that of a face-to-face class. However, success in this environment requires a personal commitment and responsibility that is often much greater than that required in a face-to-face class. Before registering for an online course, think carefully about whether or not you have what it takes to be successful.

#### **Learning to Use Desire2Learn**

Information on how to use Desire2Learn is available via the Desire2Learn login page at https://ecat.montana.edu.

#### **Required Equipment**

At a minimum, online courses require:

- A computer running either Windows XP or higher or Mac OS 10.X.X
- · A current browser
- · Internet access

To ensure that you are using a supported browser and your settings are optimized for the best possible online learning experience, go to the Desire2Learn login page (address listed above) and click on the "System Check" link.

#### **How to Register** Registrar Courses

You must be admitted to MSU in order to enroll in online courses offered through the Registrar; refer to the Admissions (p. 7) section starting of this bulletin for more information.

Registration for online courses is done in the same manner as that for on-campus courses. Refer to the Registration section (p. 11) for more information. Online courses and on-campus courses are listed together, along with Course Reference Numbers (CRN), in the Summer Class Schedule (p. 32).

#### **Academic Technology and Outreach**

If you would like to register for a course offered through Academic Technology and Outreach, please visit Academic Technology and Outreach's credit course web page at http://eu.montana.edu/credit for a listing of summer course offerings and information on how to register for Academic Technology and Outreach courses.

#### **Fees**

The fees for online courses are the same as on-campus courses.

#### **Registrar Courses**

Fees for online courses are the same as those charged for on-campus courses. Please refer the summer fee schedule (p. 16).

#### **Academic Technology and Outreach**

Fees for online courses vary; refer to the Academic Technology and Outreach Tuition, Fees and Financial Aid page,http://www.montana.edu/online/cost/index.html, for specific courses and fees.

#### **Getting Started**

Prior to the first day of class, Academic Technology and Outreach students will receive notification (via email or regular mail) with information regarding required materials and how to login. Students enrolled in courses through the Registrar should check their official MSU email box for this notification.

MSU-Bozeman participants may use either their **first.last Desire2Learn** username or their **NetID** to login to Desire2Learn (D2L). *Important*. With either ID, D2L requires participants to use the *password associated with their NetID* to log in to D2L. Find out your first.last D2L username and/or your NetID via the Secure Area of **MyInfo** (www.montana.edu; click on "MyInfo" at bottom of page).

Set your NetID password at MSU's Password Help Page: http://password.montana.edu.

Once you know your NetID, you can login to Desire2Learn by going to http://ecat.montana.edu; use your NetID and password.

Summer courses will be made active by the first day of class.

#### For More Information

For more information about online learning, visit the Distance Learning Resources Web page at http://eu.montana.edu/online/about. You'll find links to information about Desire2Learn as well as a full range of student services, library resources, and a comprehensive FAQ page.

#### **Preliminary Course Listing**

# Summer Session 2018 Preliminary Course Listing (as of February 5, 2018)

The following preliminary course listing was compiled in February, 2018. Since that time, some courses may have been added and other courses cancelled. Please refer to the Summer Session Class Schedule online at www.montana.edu/students (under "Academic Info") for the most current information as well as class dates, times, locations, and instructors.

Enrollment in the courses listed below requires that students be admitted to MSU. Registration will take place through the MSU Registrar's Office.

4x4 Session Days of Instruction: In the case where a holiday falls within a 4x4 session, that session will end on a Friday.

Individual problems, internships, undergraduate research, etc., are not included in this preliminary listing. Please contact individual departments for more information about these opportunities.

#### Accounting

0		
ACTG 201	Principles of Financial Acct <sup>1</sup>	3
ACTG 202	Principles of Managerial Accounting <sup>2</sup>	3
ACTG 223	Principles of Accounting II <sup>2</sup>	3
ACTG 524	International Accounting <sup>1</sup>	3
Activities - General		
ACT 129	Circuit Training <sup>1</sup>	1
ACT 150	Beginning Yoga <sup>2, 3</sup>	1
ACT 173	Beg Fly Fishing/Fly Tying <sup>1</sup>	1
Agricultural Educat	ion	
AGED 494	Seminar <sup>8</sup>	3
Allied Health: Medi	ical Assist	
AHMA 280	Med Assisting Exam Prep (Gallatin College Only) $1^*$	1
Allied Health: Medi	ical Support	
AHMS 144	Medical Terminology (Gallatin College Only) 4*	3
American Studies		
AMST 101D	Introduction to American Studies 1*,6*	3
Animal and Range	Sciences	
ANSC 322	Principles of Animal Breeding and Genetics 7*	3
ARNR 529	Yellowstone Wildlife Habitat Ecology <sup>8</sup>	2
Anthropology		
ANTY 101D	Anthropology and the Human Experience 6*	3
ANTY 343	Popular Culture - Japan <sup>6*</sup>	3
Architecture		
ARCH 121IA	Introduction to Design <sup>1</sup>	3
ARCH 151RA	Design Fundamentals I <sup>2</sup>	4
ARCH 152IA	Design Fundamentals II <sup>3</sup>	4
ARCH 253	Architectural Design I <sup>7</sup>	5
ARCH 254	Architectural Design II 7	5

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ARCH 355	Architectural Design III	5	BMIS 211	Intro to Bus Decision Support 1	3
ARCH 356	Arch Design IV <sup>7</sup>	5	BMIS 311	Management Information Systems 5*	3
ARCH 414	Architectural Study Abroad <sup>7</sup>	9	Business - Marke	•	
ARCH 428	Foreign Study History <sup>7</sup>	3	BMKT 325	Principles of Marketing <sup>5*</sup>	3
ARCH 431	Sustainability in Architecture 8*	3	Chemistry		
ARCH 451	Design for Community <sup>3</sup>	3	CHMY 121IN	Introduction to General Chemistry <sup>2</sup>	4
ARCH 457	Architectural Design V <sup>7</sup>	5	CHMY 123	Introduction to Organic Chemistry and	4
ARCH 543	Advanced Applied Design and Construction <sup>5</sup>	3	CHAW 141	Biochemistry <sup>1</sup>	
ARCH 551	Advanced Arch Studio <sup>8</sup>	6	CHMY 141	College Chemistry I <sup>2</sup> College Chemistry II <sup>1,3</sup>	4
ARCH 564	Adv Arch Graphics <sup>5</sup>	3	CHMY 143		4
Art - Art History			CHMY 321	Organic Chemistry I <sup>1</sup>	4
ARTH 200IA	Art of World Civilization I	4	CHMY 323	Organic Chemistry II <sup>2</sup>	4
ARTH 201IA	Art of World Civilization II <sup>2</sup>	4	CHMY 506	Integrating Computers into Laboratory Instruction <sup>8</sup>	2
ARTH 310	Ancient Art Mesoamerica <sup>3</sup>	3	C 1:	Instruction	
ARTH 460	Contemporary Art & Ecology <sup>1</sup>	3	Coaching	I . I .: . C I: 8*	2
Art - Visual Arts			COA 205	Introduction to Coaching 8*	3
ARTZ 105RA	Visual Language - Drawing <sup>1</sup>	3	COA 395	Practicum:Coaching Application 8*	1
ARTZ 109RA	Visual Language: Comprehensive Foundation	4	COA 405	Advanced Concepts in Coaching <sup>8*</sup>	3
	2		Communications		
ARTZ 110RA	Visual Language: Ideation and Creativity <sup>3</sup>	4	COMX 111US	Introduction to Public Speaking 1,2,5*	3
ARTZ 231RA	Ceramics I <sup>1</sup>	4	Community Heal		
ARTZ 357	Functional Design-Strategies for Fabricating	5	CHTH 205	Drugs and Society 1*	3
Biochemistry	Practical Objects <sup>3</sup>		CHTH 245	Physical Activity, Nutrition and Health in Aging <sup>2*</sup>	3
BCH 380	Biochemistry <sup>5</sup>	5	CHTH 317	Health Behavior Theories 3*	3
		)	CHTH 325	Leadership & Public Policies in Aging 1*	3
Biology - Ecologic		2	CHTH 405	Caregiving & Aging Families <sup>3*</sup>	3
BIOE 103CS	Environmental Science and Society <sup>1</sup>	3	CHTH 435	Human Response To Stress 1*,2*	3
BIOE 416	Alpine Ecology <sup>3</sup>	3	College of Letters		,
BIOE 421	Yellowstone Wildlife Ecology <sup>2†</sup>	3	CLS 201US	Knowledge and Community <sup>6*</sup>	3
BIOE 596	·	2	Computer Science	- · · · · · · · · · · · · · · · · · · ·	J
Biology - Genera			CS 145RA	Web Design <sup>6*</sup>	3
BIOB 260	Cellular and Molecular Biology <sup>1</sup>	4	Computer Science		J
BIOB 375	General Genetics <sup>1</sup>	3	CSCI 107	Joy and Beauty of Computing <sup>1</sup>	2
Biology - Human					3
BIOH 201	Human Anatomy and Physiology I <sup>8</sup>	5	CSCI 112	Programming with C I <sup>1</sup>	3
BIOH 464	Clinical Hematology and Body Fluids <sup>5</sup>	2	CSCI 127	Joy and Beauty of Data <sup>2</sup>	4
BIOH 466	Clin Microbiology I <sup>5</sup>	3	CSCI 132	Basic Data Structures and Algorithms <sup>3</sup>	4
BIOH 467	Clinical Chemistry I <sup>5</sup>	3	CSCI 215CS	Social & Ethical Issues in CS <sup>3</sup>	3
BIOH 468	Clinical Immunohematology I <sup>5</sup>	3	CSCI 232	Data Structures and Algorithms <sup>1</sup>	4
BIOH 469	Essentials of Clinical Lab Practice <sup>5</sup>	1	CSCI 246	Discrete Structures <sup>1</sup>	3
BIOH 491	Special Topics (Mysteries of Human	3	CSCI 338	Computer Science Theory <sup>3</sup>	3
	Skeleton) <sup>1</sup>		CSCI 477	Simulation (cross-listed with EIND 422) <sup>5</sup>	3
Business - Finance			Creative Writing		
BFIN 322	Business Finance 5*	3	CRWR 240RA	Introduction to Creative Writing <sup>2</sup>	3
Business - Genera			Earth Systems		
BGEN 242D	Intro to Int'l Business 5*	3	ERTH 101IN	Earth System Sciences <sup>1</sup>	4
BGEN 361	Principles of Business Law <sup>1</sup>	3	Economics		
BGEN 499	Senior Thesis/Capstone: Strategy Seminar <sup>8*</sup>	4	ECNS 101IS	Economic Way of Thinking 1,1*	3
Business - Manag	,		ECNS 202	Principles of Macroeconomics 1,1*	3
BMGT 205	Prof Business Communication 1*,2*	3	ECNS 204IS	Microeconomics <sup>2,2*</sup>	3
BMGT 240IS	Business Research Methods <sup>2</sup>	3	Education		
BMGT 322	Operations Management <sup>1</sup>	3	EDU 342	Managing the Learning Envir <sup>8†</sup>	3
BMGT 335	Management and Organization <sup>6*</sup>	3	EDU 370	Integrating Tech into Educ <sup>7*</sup>	2
Business - Manag	gement Information Systems		EDU 397	Methods (Creative Arts K-8) <sup>2</sup>	3

EDU 397	Methods (Math K-8) <sup>2</sup>	3	GEO 429R	Field Geology <sup>5</sup>	6
EDU 438	Ltrcy Asmnt, Diagnos and Instr <sup>3</sup>	3	Graphic Design		
EDU 591	(Writing Grant Proposals) <sup>5</sup>	3	GDSN 360	Yellowstone Digital <sup>8</sup>	3
Education, Curric	ulum and Instruction		GDSN 361	Teton Digital <sup>8</sup>	3
EDCI 501	Educational Statistics I 7*	3	GDSN 378	Guerrilla Advertising <sup>8</sup>	5
EDCI 506	Applied Educational Research 7*	3	Health		
EDCI 531	Contemporary Issues in Education 8*	3	HTH 220	Human Sexuality 1*	3
EDCI 537	Contemporary Issues in Science Education 8*	2	HTH 455	The Ethic of Care <sup>1</sup>	3
Education-Early C	hildhood		History - American	n	
EDEC 496	Early Childhood Advanced Practicum <sup>8</sup>	4	HSTA 101IH	American History I <sup>6*</sup>	4
<b>Educational Leade</b>	rship		HSTA 102IH	American History II <sup>1*</sup>	4
EDLD 507	Foundations of Educational Leadership <sup>8†</sup>	3	HSTA 160D	Introduction to the Am West	4
EDLD 515	Planned Change <sup>8†</sup>	3	HSTA 322	Am History: WWII to Present 5*	3
EDLD 565	K-12 Instructional Leadership <sup>5†</sup>	3	History - World		
EDLD 566	Administration and Supervision of Special	3	HSTR 101IH	Western Civilization I 5*	4
	Education Programs 5†		HSTR 205CS	The World Environment 5*	3
EDLD 620	The School Superintendent <sup>7†</sup>	3	HSTR 436	Armed Conflict for Moderan Latin America 5*	3
EDLD 645	Personnel and Collective Bargaining in MT <sup>7†</sup>	3	Horticulture and I	Landscape Design	
EDLD 650	MT Finance & Facilities <sup>7†</sup>	3	HORT 345	Market Gardening <sup>1</sup>	3
EDLD 655	MT Legal & Policy Studies 7 <sup>†</sup>	3	Human Developm	nent - Counseling	
Education - Specia	1		HDCO 502	Cnsl Ethic Prof Orient <sup>3†</sup>	2
EDSP 306	Exceptional Learners <sup>1</sup>	3	HDCO 506	School Counsel Programs <sup>2†</sup>	3
Engineering - Elec	trical		HDCO 508	Counseling Theories I <sup>3†</sup>	3
EELE 203	Circuits II for Engineering <sup>1</sup>	4	HDCO 524	: Theory and Practice <sup>3†</sup>	3
EELE 250	Circuits, Devices and Motors <sup>1</sup>	4	HDCO 526	Adventure Counseling <sup>8†</sup>	3
EELE 261	Intro To Logic Circuits <sup>7*</sup>	4	HDCO 551	Appraisal <sup>2†</sup>	3
Engineering - Gen	eral		HDCO 556	Sexuality Counseling <sup>3†</sup>	3
EGEN 201	Engineering MechanicsStatics 1,1*	3	HDCO 558	Career Counseling 3†	2
EGEN 202	Engineering Mechanics Dynamics 2,2*	3	Human Developm	nent & Family Sciences	
EGEN 203	Applied Mechanics <sup>1</sup>	3	HDFS 101IS	Indiv and Fam Dev: Lifespan 4*,5*	3
EGEN 205	Mechanics of Materials 2,2*	3	HDFS 261	Adult Development and Aging 1*	3
EGEN 208	Applied Strength of Materials <sup>2</sup>	3	HDFS 263	Relationships and Fam Systems <sup>5*</sup>	3
EGEN 310R	Multidisciplinary Engineering Design <sup>1</sup>	3	HDFS 371	Research Methods in HHD 8*	3
EGEN 330	Business Fundamentals for Technical	3	HDFS 450	Curric Dev in FCS Education <sup>7</sup>	3
	Professionals <sup>1</sup>		HDFS 465R	Family Law & Public Policy <sup>5*</sup>	3
EGEN 335	Fluid Mechanics <sup>3*</sup>	3	HDFS 491	Special Topics (Sust Comm Dev/Cult	3
EGEN 350	Applied Engineering Data Analysis <sup>1</sup>	2		Comptnc) 5	
Engineering-Indus	strial		HDFS 588	Professional Development <sup>7</sup>	1
EIND 422	Introduction to Simulation <sup>2</sup>	3	Immunology Infe	ctious Diseases	
Engineering - Mec			IMID 521	Laboratory Rotation I <sup>7</sup>	2
EMEC 403	CAE IVDesign Integration <sup>1</sup>	3	IMID 522	Laboratory Rotation II <sup>7</sup>	2
Fish and Wildlife	Science and Management		IMID 523	Laboratory Rotation III <sup>7</sup>	2
WILD 429	Yellowstone Wildlife Habitat Ecology <sup>8</sup>	2	Kinesiology		
Film			KIN 320	Exercise Physiology <sup>1</sup>	4
FILM 101IH	Understanding Film and Media <sup>2</sup>	3	KIN 322	Kinesiology <sup>2</sup>	4
FILM 581	Special Professional Proj <sup>2</sup>	3	Land Resources &	Environmental Sciences	
French			LRES 536	Ecology of Invasive Plants II 8*	1
FRCH 101	Elementary French I 5*	3	LRES 586	8	2
FRCH 102D	Elementary French II <sup>6*</sup>	3	Liberal Studies		
Geography			LS 101US	Interdisciplinary Ways of Knowing <sup>6*</sup>	3
GPHY 141D	Geography of World Regions <sup>1</sup>	3	LS 301	Integrative Seminar 5*	3
GPHY 284	Intro to GIS Science & Cartog <sup>1</sup>	3	Linguistics		
Geology			LING 210IH	Intro to Language/Linguistics 1*	3
GEO 419	Field Paleontology <sup>8</sup>	2	Literature		

LIT 110IH	Introduction to Literature <sup>6*</sup>	3	NRSG 291	Special Topics (Stress Less Health Promo) 1†	3
LIT 169IH	Literature as Popular Culture <sup>1</sup>	3	NRSG 336	Nursing Pharmacotherapeutics <sup>7</sup>	3
LIT 285D	Mythologies 5*	3	NRSG 341	Psychosocial Nursing Concepts 5,6	3
LIT 335	Women and Literature <sup>6*</sup>	3	NRSG 469	Cultural Applications Apps in Nursing: The	2
Mathematics				(Specific Culture) Experience <sup>8</sup>	
M 096	Survey of Algebra <sup>1,8</sup>	4	NRSG 477	Pop Based Nursing Care in Comm 5,7,7†	6
M 105Q	Contemporary Mathematics (formerly M	3	NRSG 479	Population Health & Leadership <sup>7*</sup>	6
	145Q, Math for Liberal Arts) 8*		NRSG 487	Nursing Ldrshp/Mgmnt Dvlpmnt <sup>7</sup>	6
M 121Q	College Algebra <sup>1,2,8*</sup>	3	NRSG 504	Assmnt and Eval of Education 5*	3
M 151Q	Precalculus 1,2,8*	4	NRSG 609	Adv Practice Nrsg Ldrshp <sup>7†</sup>	2
M 161Q	Survey of Calculus 1,2,3,8*	4	NRSG 620	Adv Pharm II <sup>7†</sup>	3
M 171Q	Calculus I 1,2	4	NRSG 621	Advanced Clinical I-FI <sup>7†</sup>	6
M 172Q	Calculus II 1,2	4	NRSG 623	Advanced Clinical III Primary Care for Aging	6
M 221	Introduction to Linear Algebra <sup>1,2</sup>	3		Families <sup>7†</sup>	
M 273Q	Multivariable Calculus <sup>1,2</sup>	4	NRSG 630	Adv Psychopharm II <sup>7†</sup>	3
M 274	Introduction to Differential Equation <sup>1,2</sup>	4	NRSG 631	Advanced Clinical I – Psych/Mental Health <sup>7†</sup>	6
M 424	Algebraic Thinking and Number Sense in the Middle Grades <sup>8</sup>	3	NRSG 633	Advanced Clinical III, Psych/Mental Health 7†	6
M 518	Statistics For Teaching 8*	3	Nutrition		
M 524	Linear Algebra for Teachers <sup>8</sup>	3	NUTR 221CS	Basic Human Nutrition <sup>7*</sup>	3
Media Arts			NUTR 351	Nutrition and Society <sup>7*</sup>	3
MART 145RA	Web Design <sup>6*</sup>	3	Philosophy		
Microbiology and			PHL 101IH	Intro Phil:Reason and Reality 5*,6*	3
MB 538	Cell & Molecular Biol <sup>8</sup>	2	PHL 110IH	Intro Ethics:Good and Evil 5*,6*	3
MB 541	Microbial Genetics 8*	3	PHL 278CS	Origins of Life 5*	3
MB 591	Special Topics (Scientific Proposal Writing) <sup>8</sup>	3	PHL 322	Philosophy & Envirnmntl Ethics <sup>6*</sup>	3
Modern Language			Photography		
ML 100IH	Intro to World Cultures 5*	3	PHOT 113RA	Understanding Photography <sup>2</sup>	3
ML 344	Instructional Perspectives 1,2	1	PHOT 154IA	Exploring Digital Photography 5*	3
Music -Education			PHOT 494	Seminar/Workshop (Landscape Photography)	3
MUSE 530	Music, Society, Education 5*	3		I	
Music - General	·		Physics		
MUSI 101IA	Enjoyment of Music 5*,6*	3	PHSX 205	College Physics I <sup>1</sup>	4
MUSI 106	Music Theory II 5*	3	PHSX 207	College Physics II <sup>2</sup>	4
MUSI 203IA	American Popular Music 5*,6*	3	PHSX 220	Physics I (w/ calculus) 1	4
MUSI 307IA	World Music 5*	3	PHSX 222	Physics II (w/ calculus) <sup>2</sup>	4
MUSI 348	Ensemble (Bozeman Community Concert	1	PHSX 224	Physics III <sup>3</sup>	4
	Band) <sup>7</sup>		Physics - Astronor	·	
MUSI 495	Applied Music IV <sup>8</sup>	1-2	ASTR 110IN	Introduction to Astronomy: Mysteries of the	3
MUSI 504	Studies in Hist and Analysis <sup>5*</sup>	3		Sky <sup>2</sup>	
MUSI 595	Applied Music <sup>8</sup>	1-2	Political Science	<b>5</b> *	
Music-Technology	7		PSCI 210IS	Introduction to American Government 5*	3
MUST 544	Comp App Mus Ed <sup>6*</sup>	3	PSCI 439	International Human Rights <sup>6*</sup>	3
Native American S	Studies		PSCI 454	Cinema and Political Theory <sup>1</sup>	3
NASX 105D	Introduction to Native American Studies <sup>3,5*</sup>	3	PSCI 491	Special Topics (Culture, Ideaoogy, Prisons) 1	3
NASX 232D	MT Indians: Cultures, Histories, Current	3	PSCI 530	Tools of Public Administration <sup>5*</sup>	3
	Issues <sup>6*</sup>		Psychology		
NASX 455	7*	3	PSYX 100IS	Intro to Psychology <sup>2</sup>	4
NASX 555	7	3	PSYX 223	Research Design and Analysis I <sup>1</sup>	4
Nursing			PSYX 225	Research Design and Analysis II <sup>1</sup>	3
NRSG 115	Nursing as a Profession 5*,5†,7*	2	PSYX 235D	Contemp Issues in Human Sexual <sup>1</sup>	3
NRSG 220	Foundatns Ethcl Nrsng Recitatn 5*,6*,7*	2	PSYX 263CS	The Psychology of Film <sup>1</sup>	3
NRSG 225	Fndtns Plng Prvdng Clin Nrs Cr <sup>6</sup>	4	PSYX 291	Special Topics (Intro Writing-Social Sci) 5*	3
NRSG 238	Hlth Assmnt Across Lifespan <sup>5</sup>	4	PSYX 333	Psychology of Aging <sup>2</sup>	3
NRSG 258	Principles of Pathophysiology 7,7*	3	PSYX 354	Sensation & Perception <sup>3</sup>	3

PSYX 375	Behavior Modification 5*,6*	3
PSYX 380	Memory & Cognition 5*	3
PSYX 400	History & System in Psychology <sup>2</sup>	3
PSYX 462	Psychology of Prejudice 5*	3
PSYX 481	Judgment & Decision Making <sup>5*</sup>	3
PSYX 491	Special Topics (Comparative Psychology) <sup>3</sup>	3
PSYX 499R	Senior Thesis/Capstone <sup>1</sup>	3
Religious Studies		
RLST 100D	Intro to the Study of Religion <sup>5*</sup>	3
RLST 203D	Buddhist Traditions <sup>5*</sup>	3
Sociology		
SOCI 101IS	Introduction to Sociology 5*,5*	3
SOCI 221IS	Criminal Justice System <sup>6*</sup>	3
SOCI 325	Social Stratification 5*	3
SOCI 448	Society and Sport <sup>6*</sup>	3
SOCI 494	Seminar <sup>6*</sup>	1-3
Spanish		
SPNS 101	Elementary Spanish I <sup>1</sup>	3
SPNS 102D	Elementary Spanish II <sup>2</sup>	3
SPNS 250	Spanish for Healthcare Professionals 1*	3
SPNS 335IH	Travel in Latin Am Lit & Film 1*	3
Statistics	Haver in Latin Ain Lit & Pilin	3
	Introduction to Statistics 1,2,3,8*	2
STAT 216Q		3
STAT 217Q	Intermediate Statistical Concepts <sup>1,2</sup>	3
Surveying		2
SRVY 230	Intro to Surveying for Engineers <sup>1</sup>	3
	and Bioenergy Systems	2
SFBS 296	Practicum: Towne's Harvest	3
SFBS 346	Sustainable Food and Bioenergy Systems Summer Field Course <sup>8</sup>	2
SFBS 445R	Culinary Marketing: Farm/Table (Co- Convened with SFBS 541) <sup>6</sup>	3
SFBS 541	Culinary Marketing: Farm to Table (Co- Convened with SFBS 445R) <sup>6</sup>	3
Technology Educ	cation	
TE 250CS	Technology and Society 1*	3
TE 594	Seminar <sup>7</sup>	1
Theatre		
THTR 122IA	Acting for Non-Majors <sup>1</sup>	3
University Studie	es	
COMX 111US	Introduction to Public Speaking 1,2,5*	3
UC 121US	Leadership Foundations 5*	3
Welding Technol		
WLDG 281	Weld Testing Certification Lab (Gallatin College Only) <sup>3</sup>	2
Women's and Ge	-	
WGSS 201IH	Intro to Feminist Theories 5*	3
Writing		
WRIT 101W	College Writing I 1*,2,3,5*,6,6*	3
WRIT 201	College Writing II <sup>2,3</sup>	3
WRIT 205	Intro to Writing Studies <sup>1</sup>	3
WRIT 221	Intermediate Tech Writing 5*	3
WRIT 374	Magazine Editing <sup>7*</sup>	3
WIGI J/T	Tringazine Exitting	3

<sup>&</sup>lt;sup>1</sup> Offered May-start 4x4 Session

- Offered June-start 4x4 Session
- Offered July-start 4x4 Session
- <sup>4</sup> Offered Final 4x4 Session
- Offered First 6-Week Session
- <sup>6</sup> Offered Second 6-Week Session
- Offered Full 12-Week Session
- <sup>8</sup> Offered Intersession and/or Non-Standard Term Dates
- \* Completely Online
- † Blended (Both On-Campus & Online)

# $\underline{4x4\ Session\ Days\ of\ Instruction:}$ In the case where a holiday falls within a 4x4 session, that session will end on a Friday.

Please also see additional course offerings in the following sections:

- Summer Master's Degree Programs (p. 10)
- Non-Degree and Certificate Programs (p. 10)

cedept@ce.montana.edu

994-2111

# **Departmental Contacts**

•					Engineering		
to contact	eeking information regather appropriate academ	ic departments		CHBE	Dept. of Chemical & Biological Engineering	994-2221	chbe@coe.montana.edu
	departments.	one numbers a	nd cman addresses of the	CHMY	Dept. of Chemistry & Biochemistry	994-4801	chemistry@montana.edu
AC	Dept. of Health and Human Development		kathryn.franklin1@montana.e	d <b>CHTH</b>	Dept. of Health & Human Development	994-4001	hhd@montana.edu
ACTG	Jake Jabs College of Business &	994-4681	business@montana.edu	COA	Dept. of Health & Human Development	994-4001	hhd@montana.edu
	Entrepreneurship			COM	University Studies	994-3532	advising@montana.edu
AGBE	Dept. of Agricultural Economics and Economics	994-3702	aboyd@montana.edu	CS	Gianforte School of Computing	994-4780	soc-info@montana.edu
ACED		00/ 2122	10 . 1	CSCI	Gianforte School of	994-4780	soc-info@montana.edu
AGED	Division of Agricultural Education	994-2132	aged@montana.edu	ECNS	Computing Dept. of Agricultural Economics &	994-3702	aboyd@montana.edu
AMST	College of Letters and Science	994-4247	amerstudies@montana.edu	EDCI	Economics Dept. of Education:	994-3120	education@montana.edu
ANTH	Dept. of Sociology & Anthropology	994-4201	kelsey.martin3@montana.edu	22 01	Undergraduate Courses	))131 <u>2</u> 0	
ARCH	School of Architecture	994-5772	rortego@montana.edu	EDCI	Dept. of Education: Graduate Courses	994-6786	edgrad@montana.edu
ARNR	Dept. of Animal & Range Sciences	Range Sciences		EDEC	Dept. of Health & Human Development	994-4001	hhd@montana.edu
ARTH	School of Art			EDEL	Dept. of Education	994-3120	education@montana.edu
ARTZ	School of Art	994-4501	art@montana.edu	EDLD	Dept. of Education	994-6786	edgrad@montana.edu
ASTR	Dept. of Physics	994-6186	sara.barutha@montana.edu	EDSD	Dept. of Education	994-3120	education@montana.edu
ВСН	Dept. of Chemistry & Biochemistry	994-4801	chemistry@chemistry.montana	a. <b>EDSP</b>	Dept. of Health & Human Development	994-4001	hhd@montana.edu
BFIN	Jake Jabs College of Business & Entrepreneurship	994-4421	business@montana.edu	EELE	Dept. of Electrical & Computer Engineering	994-2505	ecedept@ece.montana.edu
BGEN	Jake Jabs College of Business & Entrepreneurship	994-4421	business@montana.edu	EFIN	Dept. of Mechanical & Industrial Engineering	994-2203	mieinfo@montana.edu
BIOB	Dept. of Ecology	994-4548	ecology@montana.edu	EM	Dept. of Civil	994-2111	cedept@ce.montana.edu
BIOE	Dept. of Ecology	994-4548	ecology@montana.edu		Engineering		
BIOH	Dept. of Cell Biology	994-5120	cellbio@msu@gmail.com	ENGL	Dept. of English	994-3768	english@montana.edu
BIOL	& Neuroscience Dept. of Cell Biology	994-5120	cellbio.msu@gmail.com	ENGR	College of Engineering	994-2272	engrinfo@coe.montana.edu
DIOO	& Neuroscience	00//5/0	1 0 1	ENVE	Dept. of Civil	994-2111	cedept@ce.montana.edu
BIOO	Dept. of Ecology	994-4548	ecology@montana.edu	EDTH	Engineering	00/ 2221	10 . 1
BMGT	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu	ERTH ESOF	Dept. of Earth Sciences Gianforte School of	994-3331 994-4780	earth@montana.edu soc-info@montana.edu
BMIS	Jake Jabs College	994-4681	business@montana.edu	ESOF	Computing	<del>774-4</del> /00	soc-imo@montana.edu
Divilo	of Business & Entrepreneurship	))1 1001	ousmess@montaina.ectu	FCS	Dept. of Health & Human Development	994-4001	hhd@montana.edu
BMKT	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu	FRCH	Dept. of Modern Languages and Literatures	994-4448	modernlanguages@montana.ed
BREN	Dept. of Civil	994-2111	cedept@ce.montana.edu	GDSN	School of Art	994-4501	art@montana.edu
CAA	Engineering College of Arts & Architecture	994-4405	caa@montana.edu	GEO	Dept. of Earth Sciences	994-3331	earth@montana.edu
CE	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu	GPHY	Dept. of Earth Sciences	994-3331	earth@montana.edu

CET

Dept. of Civil

Engineering

HDCO	Dept. of Health & Human Development	994-3241	hhdgrad@montana.edu	PSC	
HORT	Dept. of Plant Sciences & Plant Pathology	994-5171	plantsciences@montana.edu	PSI	
HSTA	Dept. of History & Philosophy	994-4395	history@montana.edu	PSY RLS	
HSTR	Dept. of History & Philosophy	994-4395	history@montana.edu	SFE	
НТН	Dept. of Health and Human Development	994-4001	hhd@montana.edu	SO	
IMSE	Dept. of Mechanical & Industrial Engineering	994-2203	mieinfo@montana.edu	SPN	
KIN	Dept. of Health & Human Development	994-4001	hhd@montana.edu	STA	
LIBR	Library	994-3119	brossman@montana.edu		
LING	Dept. of English	994-3768	english@msu.montana.edu		
LIT	Dept. of English	994-3768	english@msu.montana.edu	TE	
LRES	Dept. of Land Resources & Environmental Sciences	994-3090	lresinfo@montana.edu	TH	
M	Dept. of Mathematical Sciences	994-3601	math@math.montana.edu	US WI WR	
MB	Dept. of Microbiology	994-2902	mbi@montana.edu		
MBEH	Dept. of Microbiology	994-2902	mbi@montana.edu		
ME	Dept. of Mechanical & Industrial Engineering	994-2203	mie@montana.edu		
MEDS	WWAMI Medical Program	994-4411	wwami@montana.edu		
MEDS	Health Professions	994-1670	hpa@montana.edu		
MET	Dept. of Mechanical & Industrial Engineering	994-2203	mieinfo@montana.edu		
ML	Dept. of Modern Languages & Literatures	994-4448	modernlanguages@montana.e	du	
MSSE	Intercollege Programs for Science Education	994-5679	msse@montana.edu		
MTA	School of Film & Photography	994-2484	sfp@montana.edu		
MUSE	School of Music	994-3562	music@montana.edu		
MUSI	School of Music	994-3562	music@montana.edu		
MUST	School of Music	994-3562	music@montana.edu		
NASX	Dept. of Native American Studies	994-3881	nas@montana.edu		
NRSG	College of Nursing	994-2660	nursing@montana.edu		
NUTR	Dept. of Health & Human Development	994-4001	hhd@montana.edu		
PHL	Dept. of History & Philosophy	994-4395	history@montana.edu		
PHOT	School of Film & Photography	994-2484	sfp@montana.edu		
PHSX	Dept. of Physics	994-6186	sara.barutha@montana.edu		

PSCI	Dept. of Political Science	994-4141	politicalscience@montana.edu
PSPP	Dept. of Plant Sciences & Plant Pathology	994-5171	plantsciences@montana.edu
PSYX	Dept. of Psychology	994-6052	psydept@montana.edu
RLST	Dept. of History & Philosophy	994-4395	history@montana.edu
SFBS	Dept. of Health & Human Development	994-4001	hhd@montana.edu
SOCI	Dept. of Sociology & Anthropology	994-4201	kelsey.martin3@montana.edu
SPNS	Dept. of Modern Languages & Literatures	994-4448	modernlanguages@montana.edu
STAT	Dept. of Mathematical Sciences	994-3601	math@montana.edu
TE	Dept. of Education: Undergraduate Courses	994-3120	education@montana.edu
THTR	School of Film & Photography	994-2484	sfp@montana.edu
US	University Studies	994-3532	universitystudies@montana.edu
WILD	Dept. of Ecology	994-4548	ecology@montana.edu
WRIT	Dept. of English	994-3768	english@montana.edu

# **Course Descriptions**

- AC Addiction Counselor
- ACT Activities: General
- · ACTG Accounting
- AGED Agricultural Education
- AHMA Allied Health: Medical Assist
- AHMS Allied Health: Medical Support
- AMST American Studies
- ANSC Animal Science
- ANTY Anthropology
- ARCH Architecture
- ARNR Animal & Range Natural Res
- ARTH Art: Art History
- ARTZ Art: Visual Arts
- ASTR Physics-Astronomy
- · BCH Biochemistry
- BFIN Business Finance
- BGEN Business: General
- BIOB Biology-General
- BIOE Biology-Ecological
- BIOH Biology-Human
- BIOL Biology
- BMGT Business: Management
- BMIS Business: Mgmt Info Systems
- BMKT Business: Marketing
- CHMY Chemistry
- CHTH Community Health
- CLS College of Letters & Science
- · COA Coaching
- COMX Communication
- CRWR Creative Writing
- CS Computer Science
- CSCI Computer Science/Programming
- ECNS Economics
- EDCI Education Curriculum & Instr
- EDEC Early Childhood Education
- EDLD Education Leadership
- EDSP Special Education
- EDU Education
- EELE Electrical Engineering
- EGEN General Engineering
- EIND Industrial Engineering
- $\bullet~$  EMEC Mechanical Engineering
- ERTH Earth Systems
- FILM Film & Photography
- FRCH French
- GDSN Graphic Design
- GEO Geology
- · GPHY Geography
- GRMN German
- HDCO Human Devel Counseling
- HDFS Human Development & Family Sciences
- HORT Horticulture & Landscape Des

- HSTA History-American
- HSTR History-World
- HTH Health
- IMID Immunology Infectious Diseases
- KIN Kinesiology
- LING-Linguistics
- LIT Literature
- LRES Land Resources & Env Sci
- LS-Liberal Studies
- M Mathematics
- MART Media Arts
- MB Microbiology
- MEDS Medical Science
- ML Modern Languages
- MUSE Music-Education
- MUSI Music-General
- MUST Music-Technology
- NASX Native American Studies
- NRSG Nursing
- NUTR Nutrition
- PHL Philosophy
- PHOT Photography
- PHSX Physics
- PSCI Political Science
- PSPP Plant Sciences/Plant Pathology
- · PSYX Psychology
- RLST Religious Studies
- SFBS Sustainable Food & Bioenergy
- · SOCI Sociology
- SPNS Spanish
- SRVY Surveying
- STAT Statistics
- TE Technology Education
- THTR Theatre
- UC University College
- WGSS Women's and Gender Studies
- WILD Fish & Wildlife Science & Mgmt
- WLDG Welding Technology
- WRIT Writing

#### **AC - Addiction Counselor**

# AC 505. Cross Cultural & Ethical Considerations in Addictions Counseling, 3 Credits. (3 Lec) $\rm Su$

PREREQUISITE: Admittance to program. This course is designed to examine cultural and ethical constructs related to addictions counseling. The focus will be on current literature, theories, approaches, strategies, and techniques shown to be effective when working with populations of clients with addictions.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11414	801	Intersession	-	-	-
Session						

AC 508. Counseling Theories in Addiction Settings. 3 Credits. (3 Lec) Su PREREQUISITES: Admittance to the program. This course examines multiple counseling theories and their application in the addictions setting. Development across the lifespan and theoretical approaches specific to addiction will also be examined.

1 erm	CRN	Section	Session/Dates	Days	Location	lime
2018 Summer	11415	801	Intersession	-	-	-
Section						

## **ACT - Activities: General**

#### ACT 110. Beginning Weight Training. 1 Credit. (1 Lab; 3 cr max) F,S

Learn proper weight lifting techniques, how to create a personalized weight training program, and the basics of anatomy/physiology as they relate to weight lifting.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11359	001	Second Half	-	-	-
Session			Session			

#### ACT 129. Circuit Training. 1 Credit. (1 Lab; 3 cr max) S

Learn different modes of fitness utilizing a timed sequence of exercises. This includes instruction on weight training and aerobic training. Students will gain knowledge on how to improve muscular strength, body composition, and cardiovascular endurance.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11088	001	First 4 Weeks	MTWR	MHFCS	7:00am - 7:50am
Session					CVM	

#### ACT 150. Beginning Yoga. 1 Credit. (1 Lab; 3 cr max) F,S,Su

This class is designed for the beginning yoga student. Students will learn to demonstrate basic knowledge of yoga postures and philosophy, identify basic anatomy and principles of alignment and identify the values of mind-body fitness toward a healthy lifestyle. Pass/Fail.

Term	CRN	Section	Session/Dates	Days	Location Time
2018 Summer	10932	001	Second 4	MTWR	MHFCSTUDIØ00am - 7:50am
Session			Weeks		3
2018 Summer	11654	002	Third 4 Weeks	MTWR	MHFCSTUDIØ00am - 7:50am
Section					3

#### ACT 173. Beg Fly Fishing/Fly Tying. 1 Credit. (1 Lab)

Basic skills and knowledge of fly fishing including; casting, entomology, habitat, stream ethics, tackle, tactics, and strategy.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11655	001	First 4 Weeks	FS	-	1:00pm - 4:00pm

# **ACTG - Accounting**

#### ACTG 201. Principles of Financial Acct. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: M 121Q or level 4 or 5 math course. An introduction to the principles of financial accounting for students of all business curricula. Specific topics include key accounting concepts, accounting transaction recording, financial statement preparation, accounting systems overview, business entity structures and financial statement analysis.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10030	001	First 4 Weeks	MTWR	JABS111	8:00am - 10:35am
Section						

#### ACTG 202. Principles of Managerial Accounting. 3 Credits. (3 Lec)F,S,Su

PREREQUISITE: ACTG 201. An introduction to the principles of managerial accounting. The majority of the semester will address managerial accounting, the process of providing information to managers for use in planning, control and decision making. Managerial accounting topics include product costing, cost-volume-profit analysis, budgeting, variance analysis, and decision analysis tools. The managerial accounting coverage will be preceded by a brief continuation of study of selected principles of financial accounting.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10031	001	Second 4	MTWR	JABS111	8:00am - 10:35am
Session			Weeks			

## ACTG 223. Principles of Accounting II. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: ACTG 201. A continuation of the financial accounting topics introduced in ACTG 201. The course helps students learn how to prepare and analyze financial statements, and understand the role that accounting plays in business decisions. Additional topics include: stock and bond investments, cash flow reporting, and a study of the conceptual framework and process by which accounting standards are established.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10549	001	Second 4	MTWR	JABS315	8:00am - 10:35am
Session			Weeks			

#### ACTG 524. International Accounting. 3 Credits. (3 Lec) Su

PREREQUISITE: ACTG 328 and admission to MPAc Program. Introduction to international accounting with special emphasis on four major topics: 1) accounting systems as expressions of cultural, political, and ideological forces, 2) comparative international accounting patterns, 3) efforts to harmonize international accounting standards worldwide, and 4) accounting issues faced by multinational corporations.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10598	001	First 4 Weeks	-	-	-
Session						

# **AGED - Agricultural Education**

#### AGED 494. Seminar. 3 Credits. (3 Sem; 6 cr max) S

PREREQUISITE: Junior standing and as determined for each offering and consent of instructor. Focuses on planning and implementing agricultural activities for youth. The emphasis is on planning an event, developing awareness and utilization of resources (people and things), developing a log and records regarding the event, and evaluating the effectiveness of an implementation plan and the actual event.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10488	001	Intersession	-	-	-
Section						

#### AGED 588. Professional Development. 2 Credits. (2 Lec) On Demand

PREREQUISITE: Graduate Standing. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11283	750	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

## **AHMA - Allied Health: Medical Assist**

#### AHMA 201. MA Clinical Procedures I. 4 Credits. (4 Lec) F

Performance of CLIA waived laboratory tests. Topics include specimen collection, phlebotomy, specimen processing, record keeping, universal precautions, infection control, and quality control.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11351	001	First Half	-	-	-
Session			Session			

#### AHMA 280. Med Assisting Exam Prep. 1 Credit. (1 Sem) Su

Preparation for the AMT (Āmerican Medical Technologists) registration exam and/or AAMA (American Association of Medical Assistants) certification exam.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10695	801	First 4 Weeks	-	-	-
Session						

# **AHMS - Allied Health: Medical Support**

## AHMS 144. Medical Terminology. 3 Credits. (3 Lec) F

Offered by Gallatin College. Basic elements, rules of building and analyzing medical words, and medical terms associated with the body as a whole. In addition to medical terms, common abbreviations applicable to each body system will be interpreted.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11688	801	Fourth 4 Weeks	-	-	-
Section						

## AMST - American Studies

**AMST 101D. Introduction to American Studies. 3 Credits.** (2 Lec, 1 Lab) F Introduction to the field of American Studies and to major issues in American history, literature, and the arts.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11095	801	First 4 Weeks	-	-	-
Session						
2018 Summer	11677	802	Second Half	-	-	-
Session			Session			

#### AMST 202RA. The Arts in America. 3 Credits. (2 Lec) F.S.

PREREQUISITE: WRIT 101W. Uses the methodologies of American Studies to question the history, theory, and criticism of various American art forms and movements. Disciplines covered include: film, photography, television, sculpture, painting, architecture, and music.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11096	801	First Half	-	-	-
Session			Session			

## **ANSC - Animal Science**

ANSC 322. Principles of Animal Breeding and Genetics. 3 Credits. (3 Lec)  $\boldsymbol{S}$ PREREQUISITE: ANSC 100, BIOB 160, and STAT 216Q. Genetic improvement of farm animals through performance testing, methods of selection, and application of mating systems such as crossbreeding.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11202	801	Full Semester	-	-	-
Session						

# ANTY - Anthropology

#### ANTY 101D. Anthropology and the Human Experience. 3 Credits. (3 Lec)

Comparative focus on human behavior and human cultural systems from the local to global levels. The nature and sources of diversity associated with the human experience are explored and reinforced using examples from archaeology, biological anthropology, cultural anthropology, and linguistics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10963	801	Second Half	-	-	-
Session			Session			

#### ANTY 343. Popular Culture - Japan. 3 Credits. (3 Lec) On Demand.

PREREQUISITE: ANTY 225IS, or SOCI 374, or any course on Japan, or consent of instructor. This course examines socio-historical and political meanings of mass/ popular culture in our everyday lives in personal, local and global contexts. There is an emphasis on materials originating from or related to Japan including manga, anime, music, performance arts, food, fashion, the internet, toys and television.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11639	801	Second Half	-	-	-
Session			Session			

## **ARCH - Architecture**

## ARCH 121IA. Introduction to Design. 3 Credits. (2 Lec) F,S,Su

PREREQUISITE: For majors and non-majors. Introduction to the design and creative process through global architecture and allied professions. Exploration of the history of design. Emphasis on 20th and 21st century architecture. Individual projects where students apply and explore creative process are required.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10401	001	First 4 Weeks	MTR	CHVR131	8:00am - 10:35am
2018 Summer Session	10402	002	First 4 Weeks	W	CHVR131	8:00am - 10:35am

#### ARCH 151RA. Design Fundamentals I. 4 Credits. (2 Lec, 2 Lab) F,Su

A study of the creative design process with emphasis on two-dimensional design, basic three dimensional design concepts and introduction to the essential tools for graphic communication. Development of students' self-critical skills.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10427	001	Second 4	MTWR	CHVR207	8:00am - 11:50am
Session			Weeks			

#### ARCH 152IA. Design Fundamentals II. 4 Credits. (3 Std, 1 Lec)

A study of the design process and methods employed by design disciplines as an introduction to architectonic principles, architectural graphic skills and further understanding of the creative process. Development of student's ability to make critical and analytical judgments.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11171	001	Third 4 Weeks	MTWR	CHVR207	8:00am - 11:50am
Session						

### ARCH 231CS. Issues in Sustainability. 3 Credits. (3 Lec) On Demand Introduction to concepts and practices intended to create more sustainable communities where present generations are accountable for the needs of future

generations and the natural environment. The course will explore current multidisciplinary practices in "ecological design".

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11257	001	Second Half	-	-	-
Session			Session			

#### ARCH 253. Architectural Design I. 5 Credits. (1 Lec, 4 Lab) F

PREREQUISITE: Successful Completion of ARCH 151RA and ARCH 152IA. Small-scale design projects requiring integration of spatial, visual concepts, emphasizing relationship of architecture to its context with principles of order, constituents of form, light, structural awareness, nature of materials, architectural coherency. Includes inclusive orthographic graphics design drawing conventions.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10955	001	Full Semester	MTR	CHVR207	8:00am - 11:30am
Session						

#### ARCH 254. Architectural Design II. 5 Credits. (1 Lec, 4 Lab) S

PREREQUISITE: ARCH 253 Small to medium-size projects extending the development of the design process to site and adjacency analysis, diagramming, fundamental relationship to landscape and context. Topics include hybrid uses of hand and digital graphic communication including 2D and 3D drawing and modeling.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10956	001	Full Semester	MTR	CHVR207	8:00am - 11:30am
Session						

#### ARCH 355. Architectural Design III. 5 Credits. (1 Lec, 4 Lab) F,Su

PREREQUISITE: ARCH 254. Further exploration of ecologically-sound design with emphasis on the integration of structures, building envelope service systems, and building materials, including design for life safety and accessibility. Building scale and program complexity increases, utilizing long-span structural systems. Notebook computer required. Field trip required.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10957	001	Full Semester	MTR	CHVR207	8:00am - 11:30am
Session						

## ARCH 356. Arch Design IV. 5 Credits. (1 Lec, 4 Lab) S

PREREQUISITE: ARCH 355. Advanced architectural design projects integrating site analysis, programming, building systems, and contemporary design theory. Emphasis placed on the inclusive synthesis of conceptual processes, analysis preliminary design investigation, and design development. Notebook computer required.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11133	001	Full Semester	MTR	CHVR207	8:00am - 11:30am
Session						

# ARCH 414. Architectural Study Abroad. 9 Credits. (6 Lec, 3 Ind) F,Su

PREREQUISITE: ARCH 356. COREQUISITE: ARCH 428. Structured study in foreign countries under the direction of an architecture faculty member to obtain an understanding of modern and historical architecture and the forces shaping them. Holistic study of urban environments combines design, urban design, architectural history, drawing, and pre-travel design and research. Itineraries include opportunities for additional destinations and independent travel.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10752	001	Full Semester	-	-	-
2018 Summer Session	10977	002	Full Semester	-	-	-

ARCH 425. West Architectural History. 3 Credits. (3 Sem; 6 cr max) On Demand PREREQUISITE: ARCH 322IA and ARCH 323IA. A study of events and influences that led to the development of western architectural styles, ideology, and forms of individual expression.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10573	001	Full Semester	-	-	-
Section						

# **ARCH 426.** History of Identity of Contemporary Places. 3 Credits. (3 Lec; 6 cr max) On Demand

PREREQUISITE: ARCH 322IA and ARCH 323IA. A course in applied architectural history and theory. Lectures, discussions, and student projects investigate characteristics which convey a sense of place based on historical development, architectural styles, and urban design.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10574	001	Full Semester	-	-	-
Session						

#### ARCH 428. Foreign Study History. 3 Credits. (2 Lec, 1 Ind) F,Su

PREREQUISITE: ARCH 356. COREQUISITE: ARCH 414. An on-site study in a foreign country of the social, cultural, and historic influences on architectural design. This course is only offered in conjunction with the foreign study program within the School of Architecture. Course shall include research on-site visits documented in an appropriate media form.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10753	001	Full Semester	-	-	-
2018 Summer Session	10960	002	Full Semester	-	-	-

#### ARCH 431. Sustainability in Architecture. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: ARCH 332 and ARCH 356. Architectural and site strategies for reducing the energy footprint of structures and spaces with an emphasis on the profession's ethical responsibility and techniques that maximize the potential of active and passive design strategies to sustain our natural resources.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11136	801	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 06-			
			ШП-18			

# ARCH 450. Community Design Center. 5 Credits. (1 Lec, 4 Lab) F,Su PREREQUISITE: ARCH 356. The CDC assists public and non-profit groups by providing planning, programming, and conceptual design ideas. Emphasis and scope of projects are determined by the community needs. Projects are intended to complement and promote the professional practice of architecture in the State of

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10754	001	Full Semester	-	-	-
2018 Summer	10958	002	First Half	-	-	-

**ARCH 451. Design for Community. 1-3 Credits.** (3 Ind; 6 cr max) On Demand PREREQUISITE: ARCH 355. Students will be engaged in architecturally-related activities with government and non-profit agencies. This will enable students to be involved in a service learning academic experience.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10975	001	Third 4 Weeks	MTWR	CHVR125	8:00am - 10:35an
2018 Summer Session	10976	002	Second Half Session	-	-	-

#### ARCH 457. Architectural Design V. 5 Credits. (1 Lec, 4 Lab) S,Su

PREREQUISITE: ARCH 356. Senior capstone course. Architectural design integrating building, landscape, and urban context using multi-story projects of medium scale and complexity with particular focus on mixed-use. Integrated topics include programming structural and mechanical integration, ecologically-sound design, building envelope systems and building codes.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11134	001	Full Semester	MTR	CHVR207	8:00am - 11:30am
Session						

ARCH 458. Arch Design VI. 5 Credits. (1 Lec, 4 Lab; 12 cr max) On Demand PREREQUISITE: ARCH 356 A continuation of the holistic design synthesis encountered in ARCH 356 with emphasis on development of student's emerging design values and theoretical perspective. Field trip possible. Notebook computer required.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10575	001	Full Semester	-	-	-
Section						

# ARCH 471. Directed Research/Creative Act. 1-6 Credits. (1-6 Ind; max unlimited) F,S,Su

COREQUISITE: ARCH 472. Directed research/creative activity which may culminate in a research paper, journal article, or design project. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10307	001	Full Semester	-	-	-
2018 Summer Session	10555	002	Full Semester	-	-	-
2018 Summer Session	10577	003	Full Semester	-	-	-
2018 Summer Session	10578	004	Full Semester	-	-	-

#### ARCH 494. Seminar. 1-3 Credits. (1-3 Sem; 4 cr max) F,S,Su

PREREQUISITE: Junior standing and as determined for each offering. Topics offered at the upper division level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10560	001	Second Half	-	-	-
Session			Session			

#### ARCH 521. Arch Theory. 3 Credits. (3 Sem; 9 cr max) On Demand

PREREQUISITE: Graduate standing or seniors by petition. Specific architectural, urban, planning and preservation theories, their application and context within contemporary practice will be investigated through the study of essays, drawings, models and built projects. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10658	001	First Half	-	-	-
Session			Session			
2018 Summer	10659	002	Second Half	-	-	-
Session			Session			

# **ARCH 522. Historical Issues in Arch. 3 Credits.** (3 Sem; max unlimited) On Demand

PREREQUISITE: Graduate standing or seniors by petition. Close examination of historic periods and individuals. Emphasis upon in-depth studies of particular personalities and the social, cultural, artistic and scientific developments that influenced the progress of architecture, urban design and city planning. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10660	002	Second Half Session	-	-	-
2018 Summer	10528	001	First Half	-	-	-

**ARCH 525. Special Design Topic. 3 Credits.** (3 Lab; 12 cr max) On Demand PREREQUISITE: Graduate standing or seniors by petition. Students will work under the direction of a faculty member in the research, design, development and presentation of a design, research, or historic preservation project. May be repeated as topics varv.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10661	003	Second Half Session	-	-	-
2018 Summer Session	10662	004	Second Half Session	-	-	-
2018 Summer Session	10561	001	First Half Session	-	-	-
2018 Summer	10562	002	Full Semester	-	-	-

ARCH 527. Architecture: Meaning & Place. 3 Credits. (3 Sem; 9 cr max)
On demand PREREQUISITE: Graduate standing or Seniors by petition Close examination of the psychological, existential and traditional meaning and consequential sense of place in our natural and built environment.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10961	001	First Half Session	-	-	-

# **ARCH 543. Advanced Applied Design and Construction. 3 Credits.** (3 Lab; max unlimited) On Demand

PREREQUISITE: Graduate standing or Seniors by petition. Small scale projects industrial products, furniture, buildings, etc., will be designed and built by students as an exploration of the opportunities and limitations of materials, technology, economics, and construction methods.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10663	001	First Half Session	MW	CHVR131	1:30pm - 5:30pm
2018 Summer Session	10664	002	Second Half Session	-	-	-
2018 Summer Session	10962	003	First Half Session	-	-	-

#### ARCH 551. Advanced Arch Studio. 6 Credits. (4 Lab, 2 Stu) S,Su

PREREQUISITE: Graduate Standing. Design projects which explore specific critical positions with regard to contemporary architectural issues. Research and analysis of theoretical positions are emphasized along with the development of contemporary methods and techniques for analysis. Field trip required.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10579	001	Non-standard term dates 14- MAY-18 06- JUL-18	MTR	CHVR120	8:00am - 4:00pm

#### ARCH 564. Adv Arch Graphics. 3 Credits. (3 Lab; max unlimited)

PREREQUISITE: Graduate Standing or Seniors by petition. Advanced architectural presentation strategies for exploring visual perception and design development through graphic exploration. May be taken more than once as topics vary.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10465	001	Second Half	S	-	9:00am - 5:00pm
Session			Session			
2018 Summer	10465	001	Second Half	W	CHVR131	5:30pm - 7:30pm
Session			Session			

# **ARNR - Animal & Range Natural Res**

#### ARNR 529. Yellowstone Wildlife Habitat Ecology. 2 Credits. (2 Lec) Su

PREREQUISITE: WILD 426 OR WILD 438 or equivalent. This course will describe the native communities of the internationally prominent northern Yellowstone winter range for wild ungulates. The ecology of many organisms, both plant and animal will be studied. Plant identification skills will be incorporated with an emphasis on the recognition of the Yellowstone northern range's flora and its importance as wildlife habitat. Ecosystem interrelationships will form the basis for understanding the ecology of the range and interpreting the consequences of management alternatives.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10748	001	Non-standard	MTWR	ABB	6:00am - 9:00pm
Session			term dates 11-			
			JUN-18 16-			
			IIIN 18			

## **ARTH - Art: Art History**

#### ARTH 200IA. Art of World Civilization I. 4 Credits. (3 Lec) F

This course examines the visual arts from their beginnings to ancient Egypt, Greece, and Rome through the Medieval period. It focuses on an understanding of art as the nonverbal expression of universal cultural concepts.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11607	001	First 4 Weeks	MTWR	WIL1122	11:00am - 1:35pm
Session						

#### ARTH 201IA. Art of World Civilization II. 4 Credits. (3 Lec) S

A survey of Renaissance, Baroque, and 19th and 20th century art which focuses on the evolution of humanistic expression and the emergence of the artist as an individual responding to the impact of modern society.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11606	001	Second 4	MTWR	WIL1122	11:00am - 1:35pm
Session			Weeks			

ARTH 310. Ancient Art Mesoamerica. 3 Credits. (3 Lec) Su alternate years to be offered even years A comparative survey that will examine the art and architecture of selected cultures of Mesoamerica, Central America and South America, commonly grouped under the designation of New World civilizations. The material presented will focus on the Aztecs and Maya of Mesoamerica (southern Mexico and northern Central America) and the Incas of Central Andes of South America.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11374	001	Third 4 Weeks	MTWR	WIL1122	11:00am - 1:35pm
Session						

#### ARTH 460. Contemporary Art & Ecology. 3 Credits. (3 Lec) S

PREREQUISITES: ARTH 200 or ARTH 201 This discussion course will examine the themes and movements in ecological art since 1945. Its primary focus will be on the historiography of land art, and the relationship between nature and technology.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11609	001	First 4 Weeks	MTWR	WIL1122	2:00pm - 4:35pm
Session						

#### **ARTZ - Art: Visual Arts**

#### ARTZ 105RA. Visual Language - Drawing. 3 Credits. (6 Stu)

PREREQUISITES: Consent of department. The development of basic drawing skills and concepts through an emphasis on observation and visual problem-solving. Representation and expression are explored through black and white drawing media. Critiques develop student's ability to formulate and verbalize knowledgeable responses to visual production.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10934	001	First 4 Weeks	MTWR	HAYH107	8:00am - 1:30pm
Session						

# ARTZ 109RA. Visual Language: Comprehensive Foundation. 4 Credits. (1 Lec, 3 Std)

PREREQUISITE: Consent of department. The development of basic two-dimensional and three-dimensional technical and aesthetic concepts through an emphasis on design elements and principles. Visual problem-solving in 2D pictorial construction, 3D form and space, and color theory. Critiques develop student's ability to formulate and verbalize knowledgeable responses to visual production. Required weekly lecture on various aspects of visual arts practice. Art Department.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11044	001	Second 4	MTWR	HAYH107	8:00am - 1:30pm
Session			Weeks			

#### ARTZ 110RA. Visual Language: Ideation and Creativity. 4 Credits. (1 Lec, 3 Std)

PREREQUISITE: Consent of department. Development and understanding of processes for ideation and creative thinking to generate questions and solutions. Develop basic abilities to interpret, recognize, construct, appreciate and negotiate information presented in the form of visible actions, images, objects and symbols, natural or human-made.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11043	001	Third 4 Weeks	MTWR	HAYH107	8:00am - 1:30pm
Session						

#### ARTZ 231RA. Ceramics I. 4 Credits. (2 Lec, 2 Lab) F,S

PREREQUISITE: ARTZ 109RA and Consent of Department. Contemporary ceramics - the history, development, and aesthetics of ceramic vessels and sculpture. The technical aspects of clay, glazes, and the firing of ceramic objects. Problem solving and the development of ideas.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11608	001	First 4 Weeks	MTWR	HAYH108	11:30am - 5:00pm
Session						

# ARTZ 357. Functional Design-Strategies for Fabricating Practical Objects. 5 Credits. (3 Lec, 2 Lab) Su

PREREQUISITES: ARTZ-251 or by instructor approval. During the course students will have the opportunity to work on their level of craftsmanship, technique and skill set involving the creation of practical and functional objects. The course allows students to step back from conceptual concerns and focus on the necessary skills involved in making "clean" cuts, joints and design. The course is intended to help students develop their overall skill set in the shop environment thus giving them a solid introduction to advanced processes in the wood shop.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11503	001	Third 4 Weeks	MTWR	HAYH119	9:00am - 5:00pm
Session						

ARTZ 376. Intermediate Printmaking - Relief. 5 Credits. (3 Std, 2 Rct; 15 cr max) PREREQUISITE: ARTZ 271 and Consent of department. An advanced course in which multiple original prints are made using plank and end grain wood and plastic/ rubber relief plates. Methods include reductive and multi-plate color, shaped and found object (collapgraph), color overlay, split fountain, roller and brush inking, and various hand and press printing methods.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11348	001	First Half	-	-	-
Session			Session			

ARTZ 411. Guided Research- Drawing. 1-5 Credits. (1-5 Ind; 15 cr max) F,S,Su PREREQUISITE: ARTZ 312. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of drawing. Written, signed contract required prior to registering for this course.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10035	001	Full Semester	-	-	-
2018 Summer	10036	002	Full Semester	-	-	-

ARTZ 421. Guided Research- Painting. 1-5 Credits. (1-5 Ind; 15 cr max) F,S,Su PREREQUISITE: ARTZ 322. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of painting. Written, signed contract required prior to registering for this course.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10037	001	Full Semester	-	-	-
Session						

ARTZ 431. Guided Research- Ceramics. 1-5 Credits. (1-5 Ind; 15 cr max) F,S,Su PREREQUISITE: ARTZ 332. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of ceramics. Written, signed contract required prior to registering for this course. Department of Art.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10041	001	Full Semester	-	-	-
Session						

ARTZ 453. Guided Research- Sculpture. 1-5 Credits. (1-5 Ind; 15 cr max) F,S,Su PREREQUISITE: ARTZ 352. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of sculpture. Written, signed contract required prior to registering for this course.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10038	001	Full Semester	-	-	-
2018 Summer Session	10564	002	Full Semester	-	-	-

# ARTZ 461. Guided Research-Metalsmithing. 1-5 Credits. (1-5 Ind; 15 cr max) F,S,Su

PREREQUISITE: ARTZ 361. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of metalsmithing. Written, signed contract required prior to registering for this course.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10039	001	Full Semester	-	-	-
Section						

ARTZ 472. Guided Research- Printmaking. 1-5 Credits. (1-5 Ind; 15 cr max) PREREQUISITE: ARTZ 373, ARTZ 374, ARTZ 376, ARTZ 375, or ARTZ 379. Course in which student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of printmaking. Written, signed contract required prior to registering for this course.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10040	001	Full Semester	-	-	-
Section						

**ARTZ 491. Special Topics. 1-5 Credits.** (1-5 Lec; 12 cr max) On Demand PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on

required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11252	001	Second Half	-	-	-
Session			Session			

#### ARTZ 499R. Senior Thesis: Studio. 1-5 Credits. (1 Ind; 12 cr max) F,S,Su

Senior capstone course. Directed undergraduate research/creative activity which may culminate in a research paper, undergraduate thesis paper, or undergraduate thesis exhibition. Graphic design students must take this course in the spring. Course will address responsible conduct of research.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10370	001	Full Semester	-	-	-
Session						

#### ARTZ 505. Painting. 1-5 Credits. (1-5 Ind) F,S,Su

Maximum 15 cr PREREQUISITE: ARTZ 421, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of painting.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10268	001	Full Semester	-	-	-
Session						

#### ARTZ 515. Ceramics. 1-5 Credits. (1-5 Ind) F,S,Su

Maximum 15 cr PREREQUISITE: ARTZ 431, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of ceramics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10269	001	Full Semester	-	-	-
Section						

## ARTZ 524. Metalsmithing. 1-5 Credits. (1-5 Ind) F,S,Su

Maximum 15 cr PREREQUISITE: ARTZ 461, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of metalsmithing.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10270	001	Full Semester	-	-	-
Session						

#### ARTZ 526. Drawing. 1-5 Credits. (1-5 Ind) F,S,Su

Maximum 15 cr PREREQUISITE: ARTZ 411, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of drawing.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10271	001	Full Semester	-	-	-
Session						

#### ARTZ 527. Printmaking. 1-5 Credits. (1-5 Ind) F,S,Su

Maximum 15 cr PREREQUISITE: ARTZ 472, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of printmaking.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10073	001	Full Semester	-	-	-
2018 Summer Session	10074	002	Full Semester	-	-	-

#### ARTZ 529. Sculpture. 1-5 Credits. (1-5 Ind) F,S,Su

Maximum 15 cr PREREQUISITE: ARTZ 453, graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of sculpture.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10075	001	Full Semester	-	-	-
Session						
2018 Summer	10301	002	Full Semester	-	-	-
Session						

#### ARTZ 530. Intermedia. 1-5 Credits. (1-5 Ind) F.S.Su

Maximum 15 cr PREREQUISITE: ARTZ 352, ARTZ 312, ARTZ 322 and graduate standing. Course in which the student will work on an individual basis with a faculty member in developing imagery and appropriate techniques in a particular area of intermedia

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10076	001	Full Semester	-	-	-
2018 Summer Session	10542	002	Second Half Session	-	-	-

# **ASTR - Physics-Astronomy**

# ASTR 110IN. Introduction to Astronomy: Mysteries of the Sky. 3 Credits. (3 Lec) F.S.Su

An introduction to contemporary astronomy that explores the nature, methods, and limitations of scientific inquiry within the context of our struggle to understand the structure and evolution of the Universe. Topics include the history of astronomy, motions of the night sky, the solar system, stellar evolution, galaxies, and cosmology. Common Exams.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10346	001	Second 4 Weeks	MTWR	BARNAH108	10:10am - 11:25am
2018 Summer Session	10346	001	Second 4 Weeks	MTWR	BARNAH108	12:00pm - 1:15pm
2018 Summer Session	11578	002	Second 4 Weeks	-	-	-

## **BCH** - Biochemistry

#### BCH 380. Biochemistry. 5 Credits. (4 Lec, 1 Lab) F,S,Su

PREREQUISITE: BIOB 160 or BIOB 260, and CHMY 211 or CHMY 323 or CHMY 333. Carbohydrate, lipid, protein, and nucleic acid structure and function; enzyme kinetics; energetics; major metabolic pathways for carbohydrates, lipids, and amino acids; photosynthesis; regulation of gene function. Students who have already taken this course and scored an 80% or better in the lab are eligible to be lab exempt. Contact department to register 994-4884.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10080	001	First Half Session	MTWRI	GH143	8:00am - 9:50am
2018 Summer Session	10081	002	First Half Session	TR	GH349	1:00pm - 3:50pm
2018 Summer Session	10702	050	First Half Session	-	-	-
2018 Summer Session	10082	003	First Half Session	TR	GH349	10:00am - 12:50pm
2018 Summer Session	10999	004	First Half Session	MW	GH349	10:00am - 12:50pm

#### **BFIN - Business Finance**

#### BFIN 322. Business Finance. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Junior standing, ACTG 201, ECNS 204IS, and either M 161Q or STAT 216Q. Study of the principles of finance with emphasis on the application and integration of financial concepts in decision making.

T	erm	CRN	Section	Session/Dates	Days	Location	Time
2	018 Summer	10643	801	First Half	-	-	-
S	ession			Session			

## **BGEN - Business: General**

#### BGEN 242D. Intro to Int'l Business. 3 Credits. (3 Lec) F,S

Introduces topics of globalization: differences in political economies, culture, legal systems, and ethical standards; international trade laws; issues in foreign direct investment trade alliances; global economic, financial, marketing, and human resource challenges; and organizational and strategic issues for international business.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10816	801	First Half	-	-	-
Session			Session			

#### BGEN 361. Principles of Business Law. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Junior standing. Survey of the U.S. legal system, business ethics, and the following areas of law: civil procedure, torts, contracts, UCC Article 2, intellectual property, employment, agency, and organizational forms. Emphasis on written and oral communication skills, critical thinking, and collaborative learning.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10306	001	First 4 Weeks	MTWR	JABS311	11:00am - 1:35pm
Session						

# **BGEN 499. Senior Thesis/Capstone: Strategy Seminar. 4 Credits.** (1 Lec, 3 Sem) F S Su

PREREQUISITE: Senior standing, formal admission to the College of Business, consent of instructor, and completion of BMGT 335, BMIS 311, BMGT 322, BMKT 325, BFIN 322, and BGEN 361. This course is taken the last semester prior to graduation. Explores how firms achieve competitive advantage in the context of single and multi-business firms using the tools of strategic analysis.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10429	801	Non-standard term dates 14- MAY-18 29- JUN-18	-	-	-
2018 Summer Session	10430	802	First Half Session	-	-	-

BGEN - Business: General

# **BIOB** - Biology-General

**BIOB 260.** Cellular and Molecular Biology. 4 Credits. (3 Lec, 1 Lab) F,S PREREQUISITE: CHMY 141 or CHMY 151, and STAT 216Q or M 171Q or M 181Q, with a grade of "C-" or better. COREQUISITE: CHMY 143 or 153. Introduction to biological macromolecules, cell structures and function, and gene structure and expression. The laboratory portion will include both wet labs and computer-based modules.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11565	001	First 4 Weeks	MTWR	LINH113	8:00am - 10:35am
2018 Summer Session	11566	002	First 4 Weeks	MTWR	JONH107	12:00pm - 3:00pm

#### BIOB 375. General Genetics. 3 Credits. (3 Lec)F,S,Su

PREREQUISITE: BIOB 160, BIOB 170IN, BIOB 260, or BIOM 360. Introduction to classical and molecular genetics of eukaryotes, with emphasis on transmission genetics, the structure and regulation of genes, and mechanisms of genetic change.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10905	001	First 4 Weeks	MTWR	LINH125	8:00am - 10:35am
Session						

BIOB 497. Educational Methods: Biology. 2 Credits. (2 Lab; 4 cr max) F,S,Su PREREQUISITE: Junior or senior standing, consent of instructor and department head. Provides deeper contact with a subject for those considering an academic profession. This provides experience in a teaching laboratory under detailed academic supervision in recognition that teaching enhances learning. Includes the preparation, organization, presentation of materials, and student evaluation.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10093	002	Second Half Session	-	-	-
2018 Summer Session	10305	001	First Half Session	-	-	-

# **BIOE** - Biology-Ecological

#### BIOE 103CS. Environmental Science and Society. 3 Credits. (3 Lec)F,S

The relationship between people and the environment using the earth as an ecosystem to show the effects of people's activities on natural ecosystems. Environmental issues such as wilderness, wolf reintroduction, global warming, fire ecology, whirling disease, and grizzlies are covered.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11682	001	First 4 Weeks	MTWR	LEWH306	8:00am - 10:35am
Session						

#### BIOE 416. Alpine Ecology. 3 Credits. (1 Lec, 2 Lab) Su

PREREQUISITE: Junior standing, BIOB 170IN. The ecology characteristics of alpine areas. A three-day field trip will confirm and reinforce material presented in class and is a course requirement.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10605	001	Third 4 Weeks	MTWR	LEWH306	8:00am - 10:35am
Session						

#### BIOE 420. Field Ornithology. 3 Credits. (3 Lab) Su

PREREQUISITE: Junior standing, and either BIOB 100IN or BIOB 170IN. Field identification, habitat affinities and life histories of birds of the northern Rockies. Includes early morning field trips.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11612	001	First 4 Weeks	-	-	-
Session						

# **BIOE 421. Yellowstone Wildlife Ecology. 3 Credits.** (2 Lec, 1 Lab) Su PREREQUISITE: Junior standing, and either BIOB 100IN or BIOB 170IN. Basic ecology of the major animal species of the Yellowstone area and the ecological controversies surrounding their management.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11611	001	Second 4	-	-	-
Session			Weeks			

#### BIOE 513. Terrestrial Ecology of Plains and Prairies. 1 Credit. (1 Rct) $\mbox{Su}$

PREREQUISITE: Either BIOE 408 or BIOL 516, graduate standing, secondary teacher certification, two years teaching experience, and computer access. COREQUISITE: Suggested: ESCI 513. Students will develop plant keys for classroom use, quantitatively analyze two grassland communities, and develop classroom activities

COREQUISTLE: Suggested: ESCL 913. Students will develop plant keys for classroom use, quantitatively analyze two grassland communities, and develop classroom activities on ecology of grasslands. Distance learning, class offered by internet connection. This course is designed for secondary school teachers enrolled in MSSE program and cannot be used in graduate programs in Biological Sciences.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11223	801	Intersession	-	-	-
Session						

#### BIOE 519. Riparian Zones/Wetlands. 2 Credits. (2 Rct) $\mathrm{Su}$

PREREQUISITE: Either BIOL 516 or BIOE 408, secondary teacher certification, two years teaching experience, and computer access. COREQUISITE: Suggested: ESCI 512, ESCI 515. Students will develop plant keys for classroom use, quantitatively analyze two riparian and two wetland areas, and develop classroom activities about ecology of those areas. Distance learning class offered by internet connection. This course is designed for secondary school teachers enrolled in the MSSE program and cannot be used in graduate programs in Biological Sciences.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11224	801	Intersession	-	-	-
Cossion						

#### BIOE 520. Animal Biodiversity in GYE. 2 Credits. (1 Lec, 1 Lab) Su

PREREQUISITE: BIOE 370, WILD 301, BIOE 405, or equivalent and (a) 2 years science technology experience or (b) enrolled in MSSE. Exploration of biodiversity's meaning, importance & determinants; key ecological features of the Greater Yellowstone Ecosystem and patterns of change in those features: & possible strategies for maintaining biodiversity in the Greater Yellowstone Ecosystem.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11203	001	Non-standard	-	-	-
Session			term dates 18-			
			JUN-18 22-			
			IUN-18			

#### BIOE 522. Birds of Prey. 2 Credits. (1 Lec, 1 Lab) Su

PREREQUISITE: BIOE 370, WILD 301, BIOE 405, or equivalent and 2 years science technology experience or enrolled in MSSE. Exploration of the ecology and habitat of avian raptors in the Greater Yellowstone Ecosystem (GYE). Application of the scientific method to the study of raptors. Field identification of raptors, investigation of species life histories, and inquiry methods of species-specific habitat needs. Student will develop methods and skills for classroom based research on wildlife. This course is designed for secondary school teachers enrolled in the MSSE program and cannot be used in graduate programs in Biological Sciences.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11352	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

#### BIOE 523. Wildlife Ecology. 2 Credits. (2 Lec) Su

PREREQUISITE: BIOE 370, WILD 301, BIOE 405, or equivalent and 2 years science technology experience or enrolled in MSSE. Introduction to wildlife species and the range of habitats present in the Northern Rocky Mountain ecosystems. Emphasis on large carnivores and ungulates within montane terrestrial systems. Application of the scientific method to study interactions between predators, prey , and human impacts. This course is designed for middle and high school teachers and cannot be used in graduate programs in Biological Sciences.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11204	001	Non-standard	-	-	-
Session			term dates 25-			
			JUN-18 29-			
			JUN-18			

**BIOE 591. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time			
2018 Summer Session	11205	001	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-			
2018 Summer Session	11207	003	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-			

## **BIOH - Biology-Human**

**BIOH 201. Human Anatomy and Physiology I. 5 Credits.** (3 Lec, 2 Lab) F,S,Su PREREQUISITE: CHMY 121IN, CHMY 141, or CHMY 151, with a grade of "C-" or better: priority given to majors requiring this course. General principles of cell and tissue biology that apply to all living systems. Structure and function of skeletal, muscular, nervous, and endocrine systems. Homeostasis, control, and integration of the human body will be emphasized. Laboratory will cover related systems. This course is not repeatable without prior consent of instructor.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10656	001	Non-standard term dates 14- MAY-18 28- JUN-18	MTWR	GH043	2:00pm - 4:00pm
2018 Summer Session	10657	002	Non-standard term dates 14- MAY-18 28- JUN-18	MTWR	JONH240	10:00am - 11:50am
2018 Summer Session	10755	003	Non-standard term dates 14- MAY-18 28- JUN-18	MTWR	JONH240	12:00pm - 1:50pm

**BIOH 464.** Clinical Hematology and Body Fluids. 2 Credits. (1 Lec, 1 Lab) Su PREREQUISITE: Acceptance in professional training program. Topics include a review of normal hematopoiesis; red blood cell, white blood cell, and platelet disorders; body fluid overview; and an introduction to hematology instrumentation.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10607	001	Full Semester	MTWR	F LEWH204	1:00pm - 5:00pm
Session						

#### BIOH 466. Clin Microbiology I. 3 Credits. (2 Lec, 1 Lab) Su

PREREQUISITE: Acceptance in professional training program. Topics include a review of medical microbiology, virology. mycology, parasitology, and clinical laboratory testing procedures.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10608	001	Full Semester	MTWR	F LEWH204	8:00am - 5:00pm
Session						

#### BIOH 467. Clinical Chemistry I. 3 Credits. (2 Lec, 1 Lab) Su

PREREQUISITE: Acceptance in professional training program. Topics include an introduction to theories and principles with emphasis on all body systems, and the role of instrumentation in the clinical chemistry laboratory.

Term	CRN	Section	Session/Dates	Days Location	n Time
2018 Summer	10609	001	Full Semester	MTWRF LEWH2	8:00am - 12:00pm
Session					

#### BIOH 468. Clinical Immunohematology I. 3 Credits. (2 Lec, 1 Lab) Su

PREREQUISITE: Acceptance in professional training program. Basic techniques in blood banking. Topics to be included are: ABO/Rh typing, antibody identification, transfusion therapy and reactions, donor collection and component preparation.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10606	001	Full Semester	MTWR	F LEWH204	8:00am - 5:00pm
Session						

#### BIOH 469. Essentials of Clinical Lab Practice. 1 Credit. (1 Lab) Su

PREREQUISITE: Acceptance in professional training program. Provides an orientation to the program, safety information, phlebotomy training, and an overview of management practices. Also includes instruction in hemostasis, molecular diagnostics and urinalysis.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10713	001	Full Semester	MTWR	ELEWH204	8:00am - 5:00pm
C !						

#### BIOH 470. Summer Clinical Laboratory. 12-13 Credits. Su

PREREQUISITE: To take this course, students must be accepted into a professional training program. This is a clinical laboratory science course, which will be conducted at affiliate training programs during the summer of a student's senior year. It includes student lecture and laboratory instruction in clinical immunohematology, clinical chemistry, phlebotomy, clinical hemostasis, clinical microscopy and urinalysis, clinical body fluids, transfusion techniques, and clinical microbiology.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10335	002	Full Semester	-	-	-
Session						

**BIOH 491. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand PREREQUISITE: BIOB 260. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11427	001	First 4 Weeks	MTWR	JONH223	8:00am - 10:35am
Section						

#### BIOH 594. Seminar. 1 Credit. (1 Sem; 4 cr max) On Demand

PREREQUISITE: Graduate standing or seniors by petition and course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

Term		CRN	Section	Session/Dates	Days	Location	Time
2018 Sun	nmer	10915	001	Full Semester	-	-	-
Section							

# **BIOL** - Biology

#### BIOL 591. Special Topics. 1-4 Credits. (1-4 Lec) On Demand

PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

0						
Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11148	801	Intersession	-	-	-
2018 Summer Session	11225	802	Intersession	-	-	-

# **BMGT - Business: Management**

#### BMGT 205. Prof Business Communication. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Completion of University Seminar and Writing University Core Requirement. Recognizing and creating effective approaches and styles for written, oral, and nonverbal communications appropriate to organizational situation, nature of message, and co-communicators. Course addresses professional document and presentation designs, choices of media, and tones for individual and organizational communications.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10029	801	First Half Session	-	-	-
2018 Summer Session	11397	802	Second Half Session	-	-	-

#### BMGT 240IS. Business Research Methods. 3 Credits. (3 Lec) F,S

PREREQUISITE: STAT 216Q, and BMIS 211 as pre- or co-requisite. Introduction to the methods of knowledge and knowing regarding business activities and business organizations. Focused on disciplined inquiry using statistics and quantitative analysis; providing the intellectual foundation for further exploration of the business discipline.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11599	001	Second 4	MTWR	JABS211	8:00am - 10:35am
Session			Weeks			

#### BMGT 322. Operations Management. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Junior standing. For business majors: BMIS 211, M 161Q, and STAT 216Q. For non-business majors: M 161Q and consent of instructor. Introduction to the topics and methods of production and operations management. Emphasis is given to critical thinking, business analyses and computer modeling. Application areas include accounting, finance, marketing, and management.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10034	001	First 4 Weeks	MTWR	JABS215	8:00am - 10:35am
Session						

#### BMGT 335. Management and Organization. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Junior standing. A survey of contemporary research-based concepts relevant to management and organization including topics such as motivation, leadership, teamwork, organizational design, communication, decision making, entrepreneurship, diversity, and ethics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10032	801	Second Half	-	-	-
Session			Session			

BMGT 465. International Practicum. 1-12 Credits. (1 Ind) On Demand PREREQUISITE: By application; for business majors: formal admission to the College of Business. Intensive study of culture, customs, politics, history, and business practices of another country. Program culminates with extended visit to location for lectures, and other relevant activities.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10910	001	Full Semester	-	-	-
Session						

# **BMIS - Business: Mgmt Info Systems**

#### BMIS 211. Intro to Bus Decision Support. 3 Credits. (3 Lec) F,S

Su PREREQUISITE: M 121Q. Focuses on best business practices with word-processing, presentation, spreadsheet, and database software. Emphasis on producing and evaluating effective and efficient information designs with applications in finance, accounting, marketing, and management.

1 erm	CKIN	Section	Session/Dates	Days	Location	1 ime
2018 Summer	10576	001	First 4 Weeks	MTWR	JABS415	8:00am - 10:35am
Session						

#### BMIS 311. Management Information Systems. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Junior standing, BMIS 211, and ACTG 201. A survey of the uses of information in organizational management, with emphasis on strategic systems and systems to support managerial decision making. Students apply concepts in practical application projects using currently available software.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10033	801	Full Semester	-	-	-
Session						

# **BMKT - Business: Marketing**

#### BMKT 325. Principles of Marketing. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Junior standing and ECNS 101IS. Marketing management decision-making in the product, price, promotion, and distribution areas. The behavioral, legal, ethical, competitive, technological, and economic environments as they affect decisions in the domestic and international organization.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10904	801	First Half Session	-	-	-
2018 Summer Session	10520	802	First Half Session	-	-	-

# **CHMY - Chemistry**

CHMY 121IN. Introduction to General Chemistry. 4 Credits. (3 Lec, 1 Lab)F,S,Su PREREQUISITE: C- or above in M 096 or M 097 or placement in a Math Level 3 via MPLEX/ACT/SAT (ACT 23 or SAT 540). Introductory general chemistry. Measurement systems, atomic structure, chemical periodicity, bonding, chemical reactions, acid-base chemistry, electrochemistry, nuclear chemistry. Common Exams. Students who have already taken this course and scored an 80% or better in lab are eligible to be lab exempt. Contact the department to register 994-4884.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10705	050	Second 4 Weeks	-	-	-
2018 Summer Session	10758	003	Second 4 Weeks	MTWR	GH218	2:10pm - 5:00pm
2018 Summer Session	10393	001	Second 4 Weeks	MTWR	GH030	8:20am - 10:50am
2018 Summer Session	10394	002	Second 4 Weeks	MTWR	GH216	2:10pm - 5:00pm

# CHMY 123. Introduction to Organic Chemistry and Biochemistry. 4 Credits. (3 Lec, 1 Lab) F,S,Su

PREREQUISITE: C- or above in CHMY 121IN or CHMY 143. An introduction into functional group organic chemistry and important biochemical structures, concepts, and processes. The laboratory is closely integrated with lecture coverage. Students who have already taken this course and scored an 80% or better in lab are eligible to be lab exempt. Contact the department to register 994-4884.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10709	050	First 4 Weeks	-	-	-
2018 Summer Session	10390	001	First 4 Weeks	MTWR	GH043	8:20am - 10:50am
2018 Summer Session	10391	002	First 4 Weeks	MTWR	GH216	2:10pm - 5:00pm
2018 Summer	10392	003	First 4 Weeks	MTWR	GH218	2:10pm - 5:00pm

## $\textbf{CHMY 141. College Chemistry I. 4 Credits.} \ (3 \ Lec, \ 1 \ Lab)$

PREREQUISITE: C- or above in M 121Q or placement in a Math Level 4 (ACT 25 or SAT 580). The first of a two-semester course sequence about the general principles of modern chemistry with emphasis on atomic structure, chemical bonding, the periodic table, equilibria, chemical reactivity, and kinetics. It is recommended that students registering for this course have taken high school chemistry. Common Exams. Students who have already taken this course and scored an 80% or better in lab are eligible to be lab exempt. Contact the department to register 994-4884.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10384	001	Second 4 Weeks	MTWR	GH043	8:20am - 10:50am
2018 Summer Session	10385	002	Second 4 Weeks	MTWR	GH210	2:10pm - 5:00pm
2018 Summer Session	10386	003	Second 4 Weeks	MTWR	GH245	2:10pm - 5:00pm
2018 Summer Session	10538	004	Second 4 Weeks	MTWR	GH247	2:10pm - 5:00pm
2018 Summer Session	10565	050	Second 4 Weeks	-	-	-

#### CHMY 143. College Chemistry II. 4 Credits. (3 Lec, 1 Lab) F,S,Su

PREREQUISITE: C- or above in CHMY 141. The second semester of the two-semester general chemistry sequence. Students who have already taken this course and scored an 80% or better in lab are eligible to be lab exempt. Contact the department to register 994-4884.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10710	050	Third 4 Weeks	-	-	-
2018 Summer Session	10387	001	Third 4 Weeks	MTWR	GH243	8:20am - 10:50am
2018 Summer Session	10388	002	Third 4 Weeks	MTWR	GH245	2:10pm - 5:00pm
2018 Summer Session	10389	003	Third 4 Weeks	MTWR	GH247	2:10pm - 5:00pm
2018 Summer Session	10428	004	Third 4 Weeks	MTWR	GH210	2:10pm - 5:00pm
2018 Summer Session	11573	005	First 4 Weeks	MTWR	GH243	8:20am - 10:50am
2018 Summer Session	11574	006	First 4 Weeks	MTWR	GH245	2:10pm - 5:00pm
2018 Summer Session	11575	007	First 4 Weeks	MTWR	GH247	2:10pm - 5:00pm
2018 Summer Session	11576	008	First 4 Weeks	MTWR	GH210	2:10pm - 5:00pm
2018 Summer Session	11577	051	First 4 Weeks	-	-	-

#### CHMY 321. Organic Chemistry I. 4 Credits. (3 Lec, 1 Lab) F,Su

PREREQUISITE: CHMY 143 or CHMY 153. The first of a two-semester professional sequence in organic chemistry. In-depth coverage of stereochemistry, synthetic organic chemistry, physical organic chemistry, spectroscopy, and nomenclature. Students should register for both semesters. Students who have already taken this course and scored an 80% or better in lab are eligible to be lab exempt. Contact the department to register 994-4884.

Term	CRN	Section	Session/Dates	Days	Location	Time			
2018 Summer Session	10063	001	First 4 Weeks	MTWR	REID102	8:20am - 10:50am			
2018 Summer Session	10064	002	First 4 Weeks	MTWR	GH316	12:10pm - 3:00pm			
2018 Summer Session	10065	003	First 4 Weeks	MTWR	GH318	12:10pm - 3:00pm			
2018 Summer Session	10711	050	First 4 Weeks	-	-	-			
2018 Summer Session	10285	004	First 4 Weeks	MTWR	GH318	3:10pm - 6:00pm			

#### CHMY 323. Organic Chemistry II. 4 Credits. (3 Lec, 1 Lab) S,Su

PREREQUISITE: CHMY 321. The second semester of the two-semester professional sequence in organic chemistry. Students who have already taken this course and scored an 80% or better in lab are eligible to be lab exempt. Contact the department to register 994-4884.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10712	050	Second 4 Weeks	-	-	-
2018 Summer Session	10272	001	Second 4 Weeks	MTWR	GH243	8:20am - 10:50am
2018 Summer Session	10273	002	Second 4 Weeks	MTWR	GH316	12:10pm - 3:00pm
2018 Summer Session	10274	003	Second 4 Weeks	MTWR	GH318	12:10pm - 3:00pm
2018 Summer Session	10291	004	Second 4 Weeks	MTWR	GH318	3:10pm - 6:00pm

# CHMY 506. Integrating Computers into Laboratory Instruction. 2 Credits. (1 Lec, 1 Lab) Su

PREREQUISITE: Secondary teacher certification and 2 years teaching experience. One year introductory chemistry course (CHMY 142 and 143) and coursework or experience equivalent to one semester physical chemistry (CHMY 361). A baccalaureate degree and experience teaching science at the secondary level are required. The course will examine and discuss fundamental and critical concepts in chemistry. A practical laboratory component will enable students to develop laboratory and/or demonstration projects for each concept. Individual student-generated presentations are a key course component.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11662	001	Non-standard	-	-	-
Session			term dates 09-			
			JUL-18 13-			
			JUL-18			

CHMY 591. Special Topics. 1-4 Credits. (1-4 Lec; 12 cr max) On Demand PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11226	801	Intersession	-	-	-
2018 Summer Session	11227	803	Intersession	-	-	-
2018 Summer Session	11331	851	Full Semester	-	-	-
2018 Summer Session	11353	805	Intersession	-	-	-

#### CHMY 594. Seminar. 1 Credit. (1 Sem; 4 cr max) On Demand

Max 4 cr. PREREQUISITE: Graduate standing or seniors by petition. Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material. Cross-Listed with BCH 594.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11208	001	Non-standard	-	-	-
Session			term dates 02-			
			JUL-18 06-			
			JUL-18			

# **CHTH - Community Health**

#### CHTH 205. Drugs and Society. 3 Credits. (3 Lec) F,S

Su On Demand Individual and social implications of psychoactive drug use. Basic pharmaceutical concepts, legal issues, common pharmaceutical preparations, and over-the-counter products are studied.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10327	801	First 4 Weeks	-	-	-
Session						

CHTH 245. Physical Activity, Nutrition and Health in Aging. 3 Credits. (3 Lec) On-Line Only To understand the intersection between nutrition, physical activity and health in an aged population. Theories of aging, physiological processes, nutritional needs, chronic health conditions and components of physical activity will be explored.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11009	801	Second 4	-	-	-
Session			Weeks			

#### CHTH 317. Health Behavior Theories. 3 Credits. (3 Lec) F,S

PREREQUISITE: PSYX 100IS or SOCI 101IS. The study and application of theoretical models of exercise and health with emphasis on behavior change in the individual and group levels.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10948	801	Third 4 Weeks	-	-	-
Session						

## CHTH 325. Leadership & Public Policies in Aging. 3 Credits. (3 Lec) $\ensuremath{\mathsf{S}}$

To understand leadership needs of agencies focused on assisting older adults. To develop leadership skills needed to promote the health and wellbeing of older adults. To understand public policies associated with the politics of aging.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11008	801	First 4 Weeks	-	-	-
Session						

#### CHTH 405. Caregiving & Aging Families. 3 Credits. (3 Lec) S

This class will explore the demographic characteristics of aging individuals and families in America. Specific topics will include family relationships in caregiving, stress and burden, caring for those with complicated health care needs and end-of-life care.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11403	801	Third 4 Weeks	-	-	-
Session						

# CHTH 435. Human Response To Stress. 3 Credits. (3 Lec) F,S,Su On Demand PREREQUISITE: Junior standing. Analysis of human response to stress in relation to a variety of biopsychosocial factors; techniques for managing stress are also investigated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10720	801	First 4 Weeks	-	-	-
2018 Summer	10858	802	Second 4	-	-	-

#### CHTH 494. Seminar. 1 Credit.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11413	001	Full Semester	-	-	-
Session						

#### CHTH 495. Practical Experience in Aging. 3 Credits. (3 Ind) F,S,Su

PREREQUISITE: Completion of 12-credits of coursework in the online gerontology certificate program. This class will provide students the opportunity to gain practical experience in working with older adults as well as provide students the opportunity to develop as professionals in the field of aging.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11131	801	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 21-			
			AUG-18			

# **CLS - College of Letters & Science**

### CLS 201US. Knowledge and Community. 3 Credits. (3 Sem) F,S

CLS 201 is similar to CLS 101 but is designed for students beyond their freshman year. CLS 201 is open to students who have completed at least 30 credits; students will not receive credit if they have passed CLS 101 with a grade of C- or better. Small seminar-style classes.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11405	801	Second Half	-	-	-
Session			Session			

# COA - Coaching

#### COA 205. Introduction to Coaching. 3 Credits. (3 Lec) F,S

Introductory coaching course which will cover basic information from the beginning level in the American Coach Effectiveness Program.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10550	801	Non-standard	-	-	-
Session			term dates 07-			
			MAY-18 27-			
			IUL-18			

COA 395. Practicum: Coaching Application. 1-2 Credits. (1-2 Lec; 3 cr max) F,S,Su PREREQUISITE: COA 205 with a grade of at least a "C", declared Coaching minor, and consent of instructor. Assignment of prospective coaches to specific sports. Discussion and feedback on planning and implementation in practical setting.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10486	801	Non-standard term dates 07- MAY-18 27-	-	-	-
			JUL-18			

#### COA 405. Advanced Concepts in Coaching. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: COA 205 with a grade of at least a "C" or consent of instructor. The class is intended for student in the MSU coaching minor and/or experienced coaches who wish to examine current issues in coaching such as dealing with athletes with concussions, coaching the female athlete, emphasizing sportsmanship and ethics in sport, or coach/parent relationships in detail.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10487	801	Non-standard	-	-	-
Session			term dates 07-			
			MAY-18 27-			
			JUL-18			

## **COMX - Communication**

COMX 111US. Introduction to Public Speaking. 3 Credits. (1 Lec, 2 Rec) F,S,Su Overview of the theories, concepts, and principles of public speaking, to include audience analysis, evidence, sensory aids, small group communication, ethics and listening. Application of concepts and principles through preparation and delivery of impromptu, informative, persuasive, and group presentations.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10953	002	Second 4 Weeks	MTWR	AJM238	8:00am - 10:35am
2018 Summer Session	10954	001	First 4 Weeks	MTWR	AJM238	8:00am - 10:35am
2018 Summer Session	11617	801	First Half Session	-	-	-

## **CRWR - Creative Writing**

CRWR 240RA. Introduction to Creative Writing. 3 Credits. (3 Rec)F,S,Su PREREQUISITE: WRIT 101W Introduction to the principles and techniques of creative writing, aimed at developing literary craft and the creative process. Includes lectures, readings, and writing exercises in genres that may include fiction, poetry, and creative nonfiction.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11391	001	Second 4 Weeks	MTWR	WIL1117	11:00am - 1:35pm
2018 Summer Session	11613	002	Second 4 Weeks	-	-	-

# **CS - Computer Science**

#### $\textbf{CS 145RA. Web Design. 3 Credits.} \ (2 \ Lec, \ 1 \ Lab) \ F, S$

Basic design principles and how these principles apply to website construction. HTML, HTML editors and Cascading Style Sheets. Laboratory projects reflect practical usage of course concepts. Cross-listed with MART 145RA.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10649	801	Second Half Session	-	-	-
2018 Summer Session	10650	002	Second Half Session	-	-	-
2018 Summer Session	10651	802	Second Half Session	-	-	-

# **CSCI - Computer Science/Programming**

#### CSCI 107. Joy and Beauty of Computing. 3 Credits. (3 Lec) F

Examines the computing field and how it impacts the human condition. Introduces exciting ideas and influential people. Provides a gentle introduction to computational thinking using the Python programming language.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11583	001	First 4 Weeks	MTWR	ROBH218	8:00am - 10:35am
Section						

#### CSCI 111. Programming with Java I. 4 Credits. (3 Lec, 1 Lab) F,S

COREQUISITE: M 151Q. Introduction to programming: program design, analysis, and implementation in Java, including I/O, assignment, decision, iteration, scalar types, arrays, control structures, methods, classes, and common data types. No previous programming experience required.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10928	001	Second 4	-	-	-
Session			Weeks			

#### CSCI 112. Programming with C I. 3 Credits. (2 Lec, 1 Lab) S

PREREQUISITE: CSCI 111 or CSCI 127 or EELE 101. C Programming knowledge. Introduces imperative programming and the C standard library. Course covers pointers, memory management and structures.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10757	001	First 4 Weeks	MTWR	ROBH209	8:00am - 10:35am
Session						

#### CSCI 127. Joy and Beauty of Data. 4 Credits. (3 Lec, 1 Lab) F,S

COREQUISITE: M 151Q Provides a gentle introduction to the exciting world of big data and data science. Students expand their ability to solve problems with Python by learning to deploy lists, files, dictionaries and object-oriented programming. Data science libraries are introduced that enable data to be manipulated and displayed. To succeed in this course, either basic computer literacy or CSCI 107 is recommended.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11584	001	Second 4	MTWR	BARNAH126	8:00am - 10:35am
Session			Weeks			
2018 Summer	11584	001	Second 4	MTWR	BARNAH254	2:00pm - 5:00pm
Session			Weeks			

#### CSCI 132. Basic Data Structures and Algorithms. 4 Credits. (3 Lec, 1 Lab)

PREREQUISITE: CSCI 111 or CSCI 127 and M 151Q. An examination of advanced Java and basic data structures and their application in problem solving. Data structures include stacks, queues and lists. An introduction to algorithms employing the data structures to solve various problems including searching and sorting, and recursion. Understanding and using Java class libraries. The laboratory uses Java. Introduces Big-O Notation.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10929	001	Third 4 Weeks	MTWR	ROBH208	8:00am - 10:35am
2018 Summer Session	10929	001	Third 4 Weeks	MTWR	BARNAH254	2:00pm - 5:00pm

#### CSCI 215CS. Social & Ethical Issues in CS. 3 Credits. (2 Lec, 1 Rec) F

PREREQUISITE: W core and US core. Social and ethical issues as they relate to computing, including privacy, risks, computer abuse, commerce, professionalism, free speech, intellectual property, social justice, and current issues. History of computing.

1 erm	CKN	Section	Session/Dates	Days	Location	Time
2018 Summer	10930	001	Third 4 Weeks	MTWR	ROBH307	11:00am - 1:35pm
Session						

#### $\textbf{CSCI 232. Data Structures and Algorithms. 4 Credits.} \ (3 \ Lec, \ 1 \ Lab) \ S$

PREREQUISITE: CSCI 132. Advanced data structures and programming techniques and their application. Topics include: trees, balanced trees, graphs, dictionaries, hash tables, heaps. Examines the efficiency and correctness of algorithms. The laboratory uses Java. CSCI 246 is recommended as a prerequisite.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10592	001	First 4 Weeks	MTWR	ROBH301	8:00am - 10:35am
2018 Summer Session	10592	001	First 4 Weeks	MTWR	BARNAH254	2:00pm - 5:00pm

#### $\textbf{CSCI 246. Discrete Structures. 3 Credits.} \ (3 \ \text{Lec}) \ F$

PREREQUISITE: M 171Q. COREQUISITE: CSCI 132. This course covers logic, discrete probability, recurrence relations, Boolean algebra, sets, relations, counting, functions, maps, Big-O notation, proof techniques including induction, and proof by controlliction.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11356	001	First 4 Weeks	MTWR	ROBH218	11:00am - 1:35pm
Session						

#### CSCI 338. Computer Science Theory. 3 Credits. (3 Lec) S

PREREQUISITE: CSCI 246 and M 171Q. Formal languages, theory, automata, Turing Machines, computability, the Church-Turing thesis, computational complexity, and NP-completeness.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11585	001	Third 4 Weeks	MTWR	ROBH208	2:00pm - 4:35pm
Session						

#### CSCI 477, Simulation, 3 Credits, (3 Lec) F

PREREQUISITE: CSCI 112, consent of instructor, and a probability or statistics course. Discrete and continuous simulation modeling methodology using a computer simulation language; random number generation, output analysis, validation, and verification; application to varied system design and analysis problems. Cross-listed with EIND 422.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11268	001	First Half	-	-	-
Session			Session			

CSCI 491. Special Topics. 1-4 Credits. (1-4 Lec; 12 cr max) On Demand Max 12 cr. PREREQUISITE: To be determined based on actual topic offered. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number. Co-convened with CSCI 591.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11358	001	First Half	-	-	-
Session			Session			

CSCI 591. Special Topics. 1-4 Credits. (1-4 Lec; 12 cr max) On Demand Max 12 cr. PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number. Co-convened with CSCI 491.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11520	002	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11209	001	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-

CSCI 599. Graduate Consultation. 1-3 Credits. (1-3 Ind; 3 cr max) On Demand PREREQUISITE: Master's standing, consent of instructor and approval of director of the School of Computing. This course may be used only by students who have completed all of their course work, and thesis, if on a thesis plan but who need additional faculty or staff time or help.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10101	001	Full Semester	-	-	-
Session						

## **ECNS** - Economics

#### ECNS 101IS. Economic Way of Thinking. 3 Credits. (3 Lec) F,S

Introduces important tools and methods of economics, including the core reasoning that underlies decision-making, analytical thinking and problem solving, demand and supply analysis, and indicators of economic performance. Emphasis is on application of the tools of economics to current issues of social and personal importance. LEVEL III MATH SUGGESTED.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11594	801	First 4 Weeks	-	-	-
2018 Summer	11595	001	First 4 Weeks	MTWR	LINH234	11:00am - 1:35pm

ECNS 202. Principles of Macroeconomics. 3 Credits. (3 Lec) F,S,Su PREREQUISITE: ECNS 1011S. COREQUISITE: M 121Q. Topics include inflation, unemployment, interest rates, money, and the impact of government surpluses or deficits. Government policies of growth, employment, income distribution, and international trade are examined.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10409	001	First 4 Weeks	MTWR	LINH234	8:00am - 10:35am
2018 Summer Session	11596	801	First 4 Weeks	-	-	-

#### ECNS 204IS. Microeconomics. 3 Credits. (3 Lec)

PREREQUISITE: ECNS 101IS or ECNS 251IS, M 121Q. Consumer theory and the theory of the firm are utilized to show how independent decisions by consumers and firms interact in markets to determine the price and output of goods and services.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10554	001	Second 4 Weeks	MTWR	LINH113	11:00am - 1:35pm
2018 Summer Session	11597	801	Second 4 Weeks	-	-	-

## **EDCI - Education Curriculum & Instr**

#### EDCI 501. Educational Statistics I. 3 Credits. (3 Lec) F,Su

PREREQUISITE: STAT 216, graduate standing or consent of instructor. The application of statistical processes to the analysis of educational data. Educational problems that require hypothesis testing, regression, estimation and the T-distribution, analysis of frequencies, and ANOVA in their solution will be included.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11284	802	Full Semester	-	-	-
Session						

#### EDCI 506. Applied Educational Research. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Graduate standing. Students are introduced to systematic scientific inquiry, its purpose in an educational environment, the different approaches to conducting educational research, and the major components of an educational research study. Providing a foundation for further study of research methodologies, students will identify and evaluate existing literature on a topic and conduct an educational research study. Course will address responsible conduct of research.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10490	801	Full Semester	-	-	-
Session						

#### EDCI 531. Contemporary Issues in Education. 3 Credits. (3 Lec) Su

This course is designed to establish the necessary social, technical, and research, foundations for cohort groups in the Master's degree program. This course will examine critical issues in education including advanced pedagogy, Indian Education for All. and school law.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10491	801	Intersession	-	-	-
Session						

#### EDCI 536. Construction of Curriculum. 3 Credits. (3 Lec) Su

PREREQUISITE: Graduate standing. The development and evaluation of curriculum based on psychological and social foundations of curriculum, curriculum theory, developmental models, design issues, purposes, implementation plans and techniques for assessing the impact of curriculum change.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11354	801	Intersession	-	-	-
Session						

EDCI 537. Contemporary Issues in Science Education. 2 Credits. (2 Lec) Su PREREQUISITE: Graduate standing. This seminar style course focuses on current problems and controversial issues in science education. Emphasis is placed on those issues which relate directly to science teaching, learning and curriculum. Students investigate a variety of issues especially as they relate to their own teaching practices and student learning in their classroom.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11650	801	Intersession	-	-	-
Session						

EDCI 540. American Indian Studies for Ed. 3 Credits. (3 Lec) On Demand This course serves to equip teachers with the skills, knowledge, and dispositions to meet Indian Education for All requirements for the state of Montana, and fulfills similar expectations in surrounding states. Instruction pertains to the history, traditions, customs, values, beliefs, and contemporary affairs of American Indians, particularly tribal groups in the Northern Plains Region.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11240	801	Intersession	-	-	-
Session						

#### EDCI 546. School Library Media Specialist. 3 Credits. (3 Lec) Su

PREREQUISITE: Graduate standing. This course will examine the management and leadership role of the school library media specialist and how the library media center fits into the educational setting. Restricted to Library Media Certificate students.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11663	802	Non-standard term dates 14- MAY-18 20- JUL-18	-	-	-
2018 Summer Session	10435	801	Non-standard term dates 14- MAY-18 20- JUL-18	-	-	-

# EDCI 548. Management of Information & Resources. 3 Credits. (3 Lec) Su PREREQUISITE: Graduate standing. Students learn the management, development, use, and evaluation of materials for building library collections in K-12 library media centers. Restricted to Library Media Certificate students.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11200	802	Non-standard term dates 14- MAY-18 20- JUL-18	-	-	-
2018 Summer Session	10531	801	Non-standard term dates 14- MAY-18 20- JUL-18	-	-	-

# EDCI 557. Brain Science, Educational Research, and Teaching. 3 Credits. (3 Lec) $S_{\rm II}$

This course examines key theories and concepts on the psychology of learning, from behaviorism through gestalt psychology to current variations of constructivism and cognitive science. Topics include brain imaging, cognitive science, a taxonomy of knowledge types, the power of narrative in learning, and a practical study in establishing curricular coherence through the use of foundational perspectives of the subject matter.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11236	801	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

#### EDCI 564. The Comprehensive Portfolio. 3 Credits. (3 Lec) S

This course guides the process of creating the capstone Comprehensive Portfolio in which students summarize all of their learning from the NPTT program and demonstrate how that learning has manifested in the success of the K-12 learners they teach. We study the use of portfolios as a mechanism for authentic assessment of professional practice by various professional organizations. Students engage in self-critique, peer evaluations, and the professional evaluation of your portfolio by faculty and other professional evaluators, and model the habits of self-study, reflection, and critique expected of teachers as life-long learners.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11238	801	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

# EDCI 571. In-Service Education. 1-4 Credits. (1-4 Lec; 4 cr max) On Demand PREREQUISITE: Graduate standing and employment by sponsoring school organization. An approved supervised group study of an educational problem within a local school supervised by an MSU faculty member which culminates in a special report to be filed with the local district and the.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10553	001	Full Semester	-	-	-
Session						

# EDCI 578. Internship-BPE Teacher Certification-Library Media. 1-2 Credits. (1-2 Ind: 7 max)F.S.Su

PREREQUISITE: Must be in the An internship course restricted to BPE teacher certification students enrolled in the Library Media Certificate program.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11201	801	Full Semester	-	-	-
Session						

# **EDCI 588. Professional Development. 1-3 Credits.** (1-3 Lab; 3 cr max) On Demand

Courses offered on a one-time basis to fulfill professional development needs of in service educators. A specific focus is given to each course which is appropriately subtitled.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11504	752	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11513	754	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11554	755	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11272	751	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11285	753	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-

# **EDCI 591. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11484	001	First Half Session	-	-	-
2018 Summer Session	11488	803	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11511	804	Intersession	-	-	-
2018 Summer Session	11140	801	Intersession	-	-	-
2018 Summer Session	11396	802	Intersession	-	-	-

## **EDEC - Early Childhood Education**

EDEC 496. Early Childhood Advanced Practicum. 4 Credits. (1 Lec, 3 Lab;) S,Su on demand PREREQUISITE: Senior standing in major and student teaching applicant screening required. Criminal background check required. Senior capstone course. Supervised experience in programs for young children and collaboration with early childhood professionals in the community. Students will be responsible for lesson planning and teaching, as well as supervision and evaluation of young children in an NAEYC-accredited classroom.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10886	001	Non-standard term dates 14- MAY-18 06- JUL-18	M	HH210C	12:10pm - 1:00pm
			JUL-10			

# **EDLD** - **Education** Leadership

#### EDLD 507. Foundations of Educational Leadership. 3 Credits. (3 Lec)Su

PREREQUISITE: Graduate standing, BA/BS in Education. This is the entry course for the K-12 Educational Leadership program. Topics included are leadership theory and practice; instructional leadership; basic organization theory; working with students, staff, parents, and community; creating a vision and a strategic plan for realizing the vision; and the identification and initial development of leadership skills, including a personal and professional code of ethics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11167	001	Intersession	MTWR	F REID425	8:30am - 4:30pm
2018 Summer Session	11168	002	Intersession	MTWR	F REID425	8:30am - 4:30pm

#### EDLD 515. Planned Change. 3 Credits. (3 Lec)Su

PREREQUISITE: Graduate standing. A study of the change process as applied to schools. Includes the theory and process of change, research about change, roles and practice, change models and systems, and leadership in school improvement planning and implementation, and evaluation of changed systems.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11169	001	Intersession	MTWRI	REID301	8:00am - 4:00pm
Session						
2018 Summer	11170	002	Intersession	MTWRI	REID301	8:00am - 4:00pm
Session						

#### EDLD 534. Data Driven Decisions. 3 Credits. (3 Lec)S

PREREQUISITE: Graduate standing. The course focuses on instructional leadership actions and behaviors which guide school personnel in sound decision making practices for continuous school improvement. Students will be required to collect, analyze (using statistical methods) and utilize classroom, school and district level data from local contexts as a means of increasing student achievement across all contexts.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11483	001	First Half	-	-	-
Session			Session			

## $\textbf{EDLD 565. K-12 Instructional Leadership. 3 Credits.} \ (3 \ \text{Lec}) \ Su$

PREREQUISITES: EDLD 508 and EDLD 534. Students will examine issues, challenges, and processes in K-12 curriculum and instruction in elementary and secondary schools. The course prepares school leaders for the role of instructional leader at the building level, and the specific leadership behaviors demonstrated to improve student achievement.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11165	001	First Half	MTWRI	REID126	1:00pm - 5:30pm
Session			Session			
2018 Summer	11166	002	First Half	MTWRI	REID126	1:00pm - 5:30pm
Session			Session			

# EDLD 566. Administration and Supervision of Special Education Programs. 3

PREREQUISITE: EDLD 532. Administration and Supervision of Special Education Programs is a master's level course designed to provide school principals and special education supervisors with the knowledge and skills to effectively and ethically plan, organize and manage special education and related services in their schools. This is a required course for K-12 Principal licensure in Montana.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11477	001	First Half	MTWR	F REID126	8:00am - 12:00pm
Session			Session			

# EDLD 571. In-Service Education. 1-4 Credits. (1-4 Lec, 1-4 Lab; 6 cr max) On Demand

PREREQUISITE: Graduate standing and employment by sponsoring school organization. A carefully supervised group study of an educational problem. The study will culminate in a special report, syllabus, blueprint, course of study or guide book or report to be filed with the local administrator and with the.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10499	001	Full Semester	-	-	-
Session						

# **EDLD 591. Special Topics. 1-4 Credits.** (1-4 Lec, or 1-4 Sem; 12 cr max) On Demand

COREQUISITE: Student must be enrolled in a graduate program. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11476	001	Non-standard term dates 14- MAY-18 03- AUG-18	=	-	-

#### EDLD 620. The School Superintendent. 3 Credits. (3 Lec) Su

PREREQUISITE: Master's degree, Principal licensure, or consent of instructor. This course focuses on the leadership skills necessary for the school superintendent. There is emphasis on superintendent relations with the school board and the school community, and on working with stakeholders to identify school priorities. The development of effective and appropriate communication strategies and interpersonal skills that promote public confidence for schools is stressed.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11159	001	Full Semester	-	REID223	-
Session						

#### EDLD 645. Personnel and Collective Bargaining in MT. 3 Credits. (3 Lec)Su

PREREQUISITE: Principal's Certification or concurrent enrollment in EDLD 508. This course is designed to prepare educational leaders to apply effective job analysis procedures, to understand performance appraisal for instructional and non-instructional staff, formulate professional growth plans, negotiate union agreements, and apply appropriate policies, criteria, processes for recruitment, selection, induction, and compensation of personnel with an emphasis on equity and diversity.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11160	001	Full Semester	MTWR	F REID223	8:00am - 12:00pm
Session						

#### EDLD 650. MT Finance & Facilities. 3 Credits. (3 Lec) Su

PREREQUISITE: Master's degree in Educational Leadership and principal licensure. This course is designed to facilitate a more in depth understanding of the efficient and effective use of finances, facilities, and other tangible and intangible resources at the school district level. An emphasis will be placed on Montana school finance structures, equitable distribution of resources and the alignment of resources to strategic plans and district vision. This course fulfills the Montana Chapter 57 licensure requirements for superintendents educated in out of state preparation programs.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11161	001	Full Semester	MTWR	F REID223	8:00am - 12:00pm
Session						

#### EDLD 655. MT Legal & Policy Studies. 3 Credits. (3 Lec) Su

PREREQUISITE: Master's degree in Educational Leadership. This course is designed to facilitate a more in-depth understanding of legal issues relative to education in Montana and their policy implications. Students will increase their understanding of how legal decisions impact their school. They will explore policy analysis and implementation, and develop an understanding of how laws, policies, and systemic organizational life are intertwined. This course fulfills the Montana Chapter 57 licensure requirements for superintendents educated in out of state preparation programs.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11162	002	Full Semester	MTWR	F REID223	1:00pm - 5:00pm
Session						

## **EDSP - Special Education**

#### EDSP 306. Exceptional Learners. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: EDEC 160 or EDU 222IS or EDU 223IS, and junior standing. Categories of exceptionality and implications for educators. Historical, societal, familial and educational attitudes; legal requirements of Preschool Amendments, IDEA and ADA including IEPs, IFSPs, 504s, FBAs, and BIPs. Identification, intervention, and best practices including multi-tiered systems of support (MTSS) and RTI.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10853	001	First 4 Weeks	MTWR	WIL1121	8:00am - 10:35am
Session						

## **EDU** - **Education**

#### EDU 342. Managing the Learning Envir. 3 Credits. (3 Lec)

PREREQUISITE: Good standing in the Teacher Education Program. This course examines key factors in establishing a healthy learning environment for K-12 students. The course will explore factors that contribute to student success such as school law and policy and their relationship to the establishment of effective and respectful management, engaging classroom instruction, and meaningful learning for all students.

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	Term	CRN	Section	Session/Dates	Days	Location	Time	
	2018 Summer	10867	001	Non-standard	-	-	-	
	Session			term dates 07-				
				MAY-18 01-				
				JUN-18				

#### EDU 370. Integrating Tech into Educ. 2 Credits. (1 Lec, 1 Lab)

PREQUISITE: EDU 222IS or EDU 223IS. Exploration of technology use in society and effects on teaching and learning. Includes strategies for developing technology-rich curriculum and techniques for enhancing learning through integration of technology and 21 century skills.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10489	801	Full Semester	-	-	-
C:						

#### EDU 395. Practicum. 1-3 Credits. (3 Lab; 12 cr max) F,S,Su

PREREQUISITE: M 133Q (elementary education majors only), EDU 382, and good standing in Teacher Education Program. Students will be assigned to school classrooms to observe children, teachers, and teaching strategies and to co-teach lessons in classrooms. Sections will be specific to grade level 5-12, K-8, or K-12. See advisor for appropriate section and information on term offerings.

11 1					U	
Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10741	001	Non-standard term dates 07- MAY-18 01- JUN-18	MTWR	F -	8:00am - 4:00pm
2018 Summer Session	10742	002	Non-standard term dates 07- MAY-18 01- IUN-18	MTWR	F -	8:00am - 4:00pm

#### EDU 397. Methods. 3 Credits. (1-3 Lec, 0-2 Lab; 25 cr max)

PREREQUISITE: EDU 382 and good standing in Teacher Education Program. This course is divided into multiple sections that cover specific elementary content areas. Sections include K-5 Art, K-8 Creative Arts, K-4 and K-8 Health Enhancement, K-8 Language Arts, K-8 Math, and K-8 Science. Students explore the methods of teaching content, skills, and attitudes in the elementary classroom and learn best practices for teaching in each content area.

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Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11666	050	Second 4 Weeks	MTWR	-	8:30am - 11:30am
2018 Summer Session	11667	002	Second 4 Weeks	MTWR	-	12:30pm - 3:30pm
2018 Summer Session	11402	004	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	10744	003	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-

# **EDU 397R. Methods:K-8 Social Studies. 3 Credits.** (3 Lec) F,S,Su odd years 3 cr. Lec 3 PREREQUISITE: EDU 382, completion of 3 required social science courses, and good standing in the Teacher Education Program. Identification of goals, objectives, and instructional strategies for elementary social studies.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11481	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

#### EDU 438. Ltrcy Asmnt, Diagnos and Instr. 3 Credits. (2 Lec, 1 Lab)

PREREQUISITE: EDU 330 and good standing in Teacher Education Program. Current theory and techniques in literacy assessment and individualization. Emphasis will be on specific instructional strategies that focus on independence in reading and writing. A practicum is included.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11665	001	Third 4 Weeks	MTWR	REID223	8:30am - 11:30am
Session						

# EDU 511. Teaching Culturally and Linguistically Diverse K-12 Students. 3 Credits. (3 Lec) Su

PREREQUISITES: A student needs to be a current K-12 teacher, licensed in Montana with at least two years of teaching experience (or instructor approval). COREQUISITES: EDU 512. In-service k-12 teachers will learn how they will be able to enhance their instruction and adapt their materials to make their content comprehensible to English Language Learners (ELLs) in regular classroom settings. An examination of second language development and socio-cultural factors that affect ELLs' academic performance will be conducted. American Indian ELLs, who make up the majority of ELLs in Montana, will be the focus. Best practices for helping ELLs develop academic language and literacy skills will be addressed. The SIOP (Sheltered Instruction Observation Protocol) Model, a comprehensive, research-validated approach to making content comprehensible for ELLs, will be reviewed.

Term	CRN	Section	Session/Dates	Days Lo	cation	Time
2018 Summer Session	11490	001	Full Semester	MTWRF RE	EID425	8:00am - 12:00pm
2018 Summer	11490	001	Full Semester	MTWRF RE	EID425	8:00am - 12:00pm

# EDU 512. Literacy Development for Culturally & Linguistically Diverse K-12 Students. 3 Credits. (3 Lec) $\rm Su$

PREREQUISITES: A student needs to be a current K-12 teacher, licensed in Montana with at least two years of teaching experience. Or instructor approval. COREQUISITES: EDU 511. Literacy Development for Culturally and Linguistically Diverse K-12 Students is a 3-credit graduate course designed to extend teachers' knowledge of literacy instruction to secondary ELLs. Participants will analyze and apply linguistic instructional approaches specific to orthography, phonology, morphology, vocabulary, syntax, semantics, and pragmatics applied to English language development. They will also develop reading strategies to facilitate the learning and literacy development of ELLs in secondary core content classrooms, applying these strategies to modify lessons and adapting textbooks to help ELLs succeed academically.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11491	001	Full Semester	MTWR	F REID425	1:30pm - 5:30pm
Session						
2018 Summer	11491	001	Full Semester	MTWR	F REID425	1:30pm - 5:30pm
Session						

# **EELE - Electrical Engineering**

#### **EELE 203. Circuits II for Engineering. 4 Credits.** (3 Lec, 1 Lab) S

PREREQUISITE: EELE 201, M 274. Natural and forced response of R-L-C circuits, frequency response of R-L-C circuits and Bode plots, frequency response, slew-rate and DC imperfections of real op-amps; Laplace Transform, Fourier series and Fourier Transform techniques in circuit analysis; basic R-L-C and op-amp filters; two port networks.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10724	001	First 4 Weeks	MTWR	ROBH208	9:00am - 11:00am
2018 Summer Session	10724	001	First 4 Weeks	MTWR	ROBH208	4:00pm - 5:00pm
2018 Summer	10725	002	First 4 Weeks	MTWR	COBH601	1:00pm - 3:00pm

**EELE 250.** Circuits, Devices and Motors. 4 Credits. (3 Lec, 1 Lab) F,S PREREQUISITE: M 166Q or M 172Q and PHSX 207 or PHSX 222. Introduction for non-majors to electrical circuit principles, voltage and current laws, frequency response; introduction to electronic circuits including operational amplifiers, and power electronics; introduction to electromechanical energy conversion devices, DC and AC machines.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11619	001	First 4 Weeks	MTWR	ROBH312A	8:00am - 9:00am
2018 Summer Session	11619	001	First 4 Weeks	MTWR	ROBH312A	10:00am - 11:00am
2018 Summer Session	11619	001	First 4 Weeks	MTWR	ROBH312A	12:00pm - 1:00pm
2018 Summer Session	11620	002	First 4 Weeks	MTWR	COBH601	3:10pm - 5:10pm

#### EELE 261. Intro To Logic Circuits. 4 Credits. (3 Lec, 1 Lab) F,S

An introductory course in the fundamental concepts of classical digital design. Course covers design and implementation of combinational logic circuits, synchronous sequential circuits and information storage circuits. Basic concepts of Hardware Description Languages(HDLs), design and simulation of digital systems using HDLs, and digital system implementation with programmable logic devices are presented.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11248	801	Full Semester	-	-	-
Session						

#### EELE 591. Special Topics. 1-4 Credits. (1-4 Lab; 12 cr max)

-- Special Topics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11479	801	Intersession	-	-	-
2018 Summer Session	11211	001	Non-standard term dates 14- MAY-18 03- AUG-18	-	Ē	-

# **EGEN - General Engineering**

EGEN 201. Engineering Mechanics--Statics. 3 Credits. (3 Lec) F,S,Su On Demand. PREREQUISITE: PHSX 220 or PHSX 240. COREQUISITE: M 273Q or M 283Q. Equilibrium of particles and rigid bodies; static analysis of structures including trusses, beams, frames and machines; coulomb friction; area and mass centroids, moments and products of inertia.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10706	801	First 4 Weeks	-	-	-
2018 Summer	10276	001	First 4 Weeks	MTWR	ROBH307	11:00am - 1:35pm

# EGEN 202. Engineering Mechanics -- Dynamics. 3 Credits. (3 Lec) F,S,Su On Demand.

PREREQUISITE: EGEN 201 or EGEN 221 and M 273Q or M 283Q. Kinematics, kinetics, work-energy, and impulse-momentum for particles and rigid bodies. Common Exams.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10707	801	Second 4 Weeks	-	-	-
2018 Summer Session	10437	001	Second 4 Weeks	MTWR	ROBH307	11:00am - 1:35pm

EGEN 203. Applied Mechanics. 3 Credits. (3 Lec) F,S,Su On Demand. PREREQUISITE: PHSX 205 or PHSX 220 or PHSX 240. COREQUISITE: M 166Q, M 172Q or M 182Q. Force systems in equilibrium and applications to structural trusses and frames; section properties; distributed force systems; shear and moment distributions in beams; basic particle dynamics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10759	001	First 4 Weeks	MTWR	ROBH210	8:00am - 10:35am
Section						

**EGEN 205. Mechanics of Materials. 3 Credits.** (3 Lec) F,S,Su On Demand PREREQUISITE: EGEN 201 or EGEN 221. Stress and strain, Hooke's Law, thermal strain, torsion, bending of beams, combined stress, limit analysis, energy methods, virtual work, column theory.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10708	801	Second 4 Weeks	-	-	-
2018 Summer Session	10455	001	Second 4 Weeks	MTWR	ROBH312A	8:00am - 10:35am

**EGEN 208.** Applied Strength of Materials. 3 Credits. (3 Lec) F,S,Su On Demand PREREQUISITE: EGEN 201 or EGEN 203 or EGEN 221. Equilibrium and deformation of structural elements; concepts of stress and strain and interrelationship; representation and transformation of combined stress states; axial, torsional and flexural stresses and deformation; column buckling.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10773	001	Second 4	MTWR	ROBH301	8:00am - 10:35am
Session			Weeks			

**EGEN 310R. Multidisciplinary Engineering Design. 3 Credits.** (3 Lec) F,S PREREQUISITE: Junior standing in an Engineering curriculum or consent of instructor. Introduces engineering students to topics such as design process, creative design, project management, teamwork, and technical leadership while highlighting the skills needed to work in an multi-disciplinary environment.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10869	001	First 4 Weeks	MTWR	JABS111	11:00am - 1:35pm
2018 Summer Session	11188	002	First Half Session	-	-	-

# EGEN 330. Business Fundamentals for Technical Professionals. 3 Credits. (3 Lec) F.S.Su

PREREQUISITES: Junior Standing; and M 171Q or M 165Q. Basic business topics for engineers and other technical professionals. Introduces key topics related to financial statements, accounting practices, project management, and evaluation of capital investment alternatives including present worth, rate of return, and after-tax analysis methods.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11407	001	First 4 Weeks	MTWR	ROBH301	11:00am - 1:35pm
Session						

**EGEN 335. Fluid Mechanics. 3 Credits.** (3 Lec) F,S,Su On Demand. PREREQUISITE: EGEN 202, EGEN 205. Introduction to modern fluid mechanics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10751	802	Second Half Session	-	-	-
2018 Summer Session	11089	801	Third 4 Weeks	-	-	-

EGEN 350. Applied Engineering Data Analysis. 2 Credits. (2 Lec) F,S,Su PREREQUISITE: M 166Q or M 172Q. An overview of data variability and applied statistical analysis techniques for a broad range of engineering disciplines. Topics include fundamentals of probability, essential probability distributions, hypothesis testing, experimental design strategies, and regression in the context of engineering applications. Evening exams required. Common final.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10296	001	First 4 Weeks	MTWR	ROBH307	9:00am - 10:45am
Session						

# **EIND** - Industrial Engineering

#### EIND 422. Introduction to Simulation. 3 Credits. (3 Lec) F

PREREQUISITE: CSCI 111 or equivalent, and EIND 354 or equivalent. Discrete simulation modeling methodology; sampling, output analysis, validation, and verification; application to varied systems design and analysis problems. Cross-listed with CSCI 477.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11269	001	Second 4	MTWR	ROBH312A	11:00am - 1:35pm
Session			Weeks			

# **EMEC - Mechanical Engineering**

EMEC 203. CAE II-Mechanical Engineering Computations. 2 Credits. (1 Lec, 1 Lab) F.S

PREREQUISITE: EMEC majors only, EMEC 103. COREQUISITE: M 172Q. Computer methodology, use of various computer software packages in mechanical engineering applications.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11501	001	First Half	-	-	-
Session			Session			

#### EMEC 403. CAE IV--Design Integration. 3 Credits. (1 Lec, 2 Lab) F

S PREREQUISITE: EMEC 103 or EMEC 303; or instructor's consent; junior standing. Develop the ability to use solid and parametric modeling to design and document machine parts. Geometric dimensioning and tolerancing, auxiliary views, analysis of models, advanced modeling techniques and customization are covered through hands-on experiences.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11003	001	First 4 Weeks	MTWR	BARNAH134	8:00am - 8:50am
Session						

# **ERTH - Earth Systems**

#### ERTH 101IN. Earth System Sciences. 4 Credits. (3 Lec, 1 Lab) F,S,Su

Examination of basic geologic processes, Earth and planets through geologic time, internal geosystems, and surficial geosystems.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10912	001	First 4 Weeks	MTWR	GH030	9:00am - 11:30am
2018 Summer Session	10913	002	First 4 Weeks	MTWR	GH145	1:00pm - 4:00pm

#### ERTH 516. North Rocky Mtn Geology. 2 Credits. (1 Lab) Su

PREREQUISITE: ERTH 101IN, early history and evolution (GEO 211); graduate standing; secondary teaching certification plus two years teaching experience; a computer with modem. Geologic history of Northern Rocky Mountains, and landscapes from Archean to present. Structural, tectonic, and surficial elements. Field examination of geologic evidence for history of the Gallatin Range, Bridger Range, and Yellowstone National Park. Exploration and development of teaching methods and resources for the K-12 classroom.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11213	001	Non-standard term dates 11-	-	-	-
56331011			JUN-18 15-			
			JUN-18			

# **ERTH 588. Professional Development. 1-3 Credits.** (1-3 Lec; 3 cr max) On Demand

Max 3 cr. PREREQUISITE: Graduate standing, teaching experience and/or current employment in a school organization, consent of instructor and Dean of Graduate Studies. Courses offered on a one-time basis to fulfill professional development needs of in service educators. A specific focus is given to each course which is appropriately subtitled. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11264	750	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

#### ERTH 591. Special Topics. 1-4 Credits. (1-4 Sem; 12 cr max)

PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11137	801	Full Semester	-	-	-
2018 Summer Session	11138	802	Full Semester	-	÷	-
2018 Summer Session	11139	803	Intersession	-	÷	-
2018 Summer Session	11355	001	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-

#### ERTH 594. Seminar. 1-4 Credits. (1 Sem; 4 cr max) F,S

PREREQUISITE: Graduate standing, consent of instructor, or seniors by petition. Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material. Co-convened with ERTH 494.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11212	001	Non-standard term dates 16- JUN-18 16- JUN-18	S	-	-

# FILM - Film & Photography

#### FILM 100IH. Intro to Film & Photography. 3 Credits. (2 Lec) F,S,Su

An exploration of the historical, artistic and critical connections between photography and film as profoundly influential media shaping the 20th century and as the foundation of "new media" in the 21st century.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11456	001	Second 4	-	-	-
Session			Weeks			

#### FILM 101IH. Understanding Film and Media. 3 Credits. (1 Lec, 2 Lab) F

This course provides students with the tools of film and media analysis as a foundation for future cinema study and practice. Close analysis of films from different countries and time periods will be used to recognize the formal elements of film production, principally style and narrative.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10959	001	Second 4	MTWR	VCB182	11:00am - 1:35pm
Session			Weeks			

#### FILM 295. Practicum. 1-3 Credits. (1-3 Ind; 12 cr max) F,S,Su

PREREQUISITE: Consent of instructor. Max 12 cr. Practical experience associated with production and research project in motion pictures, television/video, photography, and theatre. May include rehearsal or performance activity. Credit will be offered to students doing basic work on faculty members' productions or on student productions under direct faculty supervision. Credit will be offered to students giving basic technical support to: a)faculty teaching courses, b)faculty engaged in creative activities, or c)advanced students' productions (while supervised by an SFP faculty member)

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10647	001	First 4 Weeks	MTWR	VCB148	2:00pm - 4:35pm
Session						

#### FILM 395. Practicum. 1-3 Credits. (1 Ind; 12 cr max) F,S,Su

Max 12 cr. PREREQUISITE: Junior Standing in Film and consent of instructor. Practical experience associated with production and research projects in motion pictures, television/video, photography, and theatre. May include rehearsal or performance activity. Credit will be offered to students doing advanced work on faculty members' productions or on student productions under direct faculty supervision.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10872	001	Full Semester	-	-	-
Session						

# FILM 481. Advanced Studies in Film. 1-12 Credits. (1-12 Sem; 9 cr max) F,S, On Demand

PREREQUISITE: Any 300 level film studies course or permission of instructor. COREQUISITE: Sophomore level. Studies topics offered at the upper division level that are not covered in regular courses. Students participate in preparing and presenting discussion material. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11417	001	First Half	-	-	-
Session			Session			

**FILM 494. Seminar/Workshop. 1-4 Credits.** (1-4 Sem; 12 cr max) On Demand PREREQUISITE: Consent of instructor. Advanced topics in film production or film studies. Topics Vary. School of Film and Photography.

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Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11621	003	Second 4 Weeks	MTWR	VCB233	2:00pm - 4:35pm
2018 Summer Session	10874	001	First 4 Weeks	MTWR	VCB150	11:00am - 1:35pm
2018 Summer Session	10916	002	First 4 Weeks	MTWR	VCB159	2:00pm - 4:35pm
2018 Summer Session	11154	004	Second 4 Weeks	MTWR	VCB233	11:00am - 1:35pm

**FILM 581. Special Professional Proj. 1-4 Credits.** (1-3 Lab; 6 cr max) F,S Max 6 cr. PREREQUISITE: FILM 510. Special Professional Projects provides students with special funded projects the opportunity for professional level supervision and assistance from the faculty and other students. Funding must be in place before the class begins.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11623	001	Second 4	MTWR	VCB182	2:00pm - 4:35pm
Session			Weeks			

## FRCH - French

#### FRCH 101. Elementary French I. 3 Credits. (3 Lec)

NOTE: Offered on a rotating basis with German and Spanish in Summer. An elementary level course designed to help students acquire basic proficiency in communicating within culturally significant contexts. An integrated approach to teaching language skills with emphasis on vocabulary acquisition and basic grammatical structures.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11587	801	First Half	-	-	-
Session			Session			

#### FRCH 102D. Elementary French II. 3 Credits. (3 Lec)

PREREQUISITE: FRCH 101 or equivalent, or two years of high school French. Offered on a rotating basis with German and Spanish in Summer This course builds upon the foundation established in 101. Greater emphasis is placed upon oral and written expression. Reading and discussions are designed to increase comprehension of more linguistically complex texts and more conceptually complex cultural issues.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11588	801	Second Half	-	-	-
Session			Session			

#### FRCH 193. Study Abroad. 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11315	001	Full Semester	-	-	-

#### FRCH 293. Study Abroad. 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11316	001	Full Semester	-	-	-
C!						

#### FRCH 393. Study Abroad: 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11317	001	Full Semester	-	-	-
Session						

#### FRCH 493. Study Abroad: 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11318	001	Full Semester	-	-	-
Session						

# **GDSN - Graphic Design**

#### GDSN 360. Yellowstone Digital. 3 Credits. (3 Lab)

PREREQUISITE: GDSN 224 or ARTZ 211RA or MTA 265 or ARCH 261 and Consent of department. A field workshop located along the Yellowstone river using either 35mm or a Digital camera to create fine art digital prints. This course is designed for individuals with a working knowledge of photographic basics and a fundamental familiarity with their own equipment that desire to explore the new media of the fine art digital print.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10726	001	Non-standard	MTWR	F -	8:00am - 5:00pm
Session			term dates 11-			
			JUN-18 15-			
			IUN-18			

#### GDSN 361. Teton Digital. 3 Credits. (3 Lec)

PREREQUISITE: GDSN 224, ARTZ 211RA, or MTA 260, or ARCH 261 and Consent of department. An intensive field workshop located in the Jackson, Wyoming area and Grand Teton National Park using a Digital camera to create fine art digital prints. This course is designed for individuals with a working knowledge of photographic basics and a fundamental familiarity with their own equipment that desire to explore the new media of the digital print.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10727	001	Non-standard	MTWRI	FS	8:00am - 5:00pm
Session			term dates 09-			
			JUL-18 18-			
			JUL-18			

#### GDSN 378. Guerrilla Advertising. 5 Credits. (5 Lab) Su

PREREQUISITE: GDSN 224 or consent of instructor. Photo and marketing majors are highly encouraged. Students stretch the boundaries of traditional advertising solutions by placing their work in unusual contexts for maximum impact. The workshop-like atmosphere involves quick-fire problem solving sessions, working outdoors, guest critiques and socially-driven solutions. Graphic Design, Film & Photography, and Marketing majors are particularly encouraged to apply.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10644	001	Non-standard term dates 14- MAY-18 31- MAY-18	MTWR	CHVR102	8:00am - 5:00pm

## **GEO** - Geology

**GEO 111IN. Dinosaurs. 3 Credits.** (2 Lec) S alternate years, to be offered even years. This course provides an introduction to dinosaur paleontology. Students will learn how hypotheses about extinct animals are formulated and tested, with comparisons to modern sedimentary environments and living animals. Recitation sections allow discussion of current research and hands-on experience with sedimentary rocks and fossils. Field trips provide additional education opportunities.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11378	001	First Half	-	-	-
Session			Session			

# **GEO 419. Field Paleontology. 2 Credits.** (1 Lec, 1 Lab) Su alternate years, to be offered even years.

PREREQUISITE: GEO 208IN. This two-week class provides field experience in vertebrate paleontology, including sedimentology, facies analysis, measuring stratigraphic sections, microsite screening, field identification of vertebrate and invertebrate fossils, excavation of fossil specimens, and taphonomic data collecting.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11610	001	Non-standard	-	-	-
Session			term dates 11-			
			JUN-18 24-			
			JUN-18			

#### GEO 429R. Field Geology. 6 Credits. (6 Lab) Su

PREREQUISITE: ERTH 307, GEO 211, GEO 309, and GEO 315. Must receive a minimum grade of "C" in these courses. A senior capstone course for the geology, geohydrology and paleontology options. Summer field course with application of field procedures and mapping techniques to a variety of field problems and exercises. Extensive hiking and outdoor physical challenges require that students be physically fit. A fee for supplies, transportation, and other logistical expenses is required.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10914	001	First Half	-	-	-
Session			Session			
2018 Summer	11337	002	First Half	-	-	-
Session			Session			

#### GEO 521. Dinosaur Paleontology. 2 Credits. (1 Lec, 1 Lab) Su

PREREQUISITE: Graduate Standing. This course is an introduction to Dinosaur Paleontology and Hell Creek Formation of Eastern Montana. It will provide information and hands-on experience in field techniques used in vertebrate paleontology, including interpretation of sedimentary environments and taphonomy.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11214	001	Non-standard term dates 25- JUN-18 30-	-	-	-
			JUN-18			

# **GPHY** - Geography

## GPHY 141D. Geography of World Regions. 3 Credits. (3 Lec) F,S,Su

Resume of major world regions; their cultures, populations, resources, utilization of land; emphasis on regions outside Anglo-America.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10371	001	First 4 Weeks	MTWR	LINH301	11:00am - 1:35pm
Session						

#### GPHY 284. Intro to GIS Science & Cartog. 3 Credits. (2 Lec, 1 Lab) F,S

Concepts of spatial thinking; understanding spatial relationships and interaction in the natural and built environment. Spatial data principles, data models, relational database concepts, contemporary digital cartography, map design and composition, spatial data conversion, introduction to spatial analysis and synthesis.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10941	001	First 4 Weeks	MTWR	GH144	8:00am - 10:00am
Session						
2018 Summer	10941	001	First 4 Weeks	MW	TRAP201	10:30am -
Session						12:30pm

#### **GRMN** - German

### GRMN 193. Study Abroad: 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11307	001	Full Semester	-	-	-
Cossion						

#### GRMN 293. Study Abroad:. 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11308	001	Full Semester	-	-	-
Section						

#### GRMN 393. Study Abroad:. 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11309	001	Full Semester	-	-	-
Session						

#### GRMN 440IH. German Cultural Studies. 3 Credits. (3 Lec)

Students acquire expertise in social, philosophical, and cultural concepts that inform the evolution of German cultural theory from the 18th century to the present. Topics covered include nation-building narratives, Marxism, psychoanalysis, feminism, critical theory, and contemporary cultural studies. (Conducted entirely in English).

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11381	801	First Half	-	-	-
Session			Session			

#### GRMN 493. Study Abroad: 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11310	001	Full Semester	-	-	-
Section						

# **HDCO - Human Devel Counseling**

#### HDCO 502. Cnsl Ethic Prof Orient. 2 Credits. (2 Rct) Su

PREREQUISITE: Graduate standing in counseling program. This course will prepare the student with a strong orientation to professional and ethical issues as they apply to counseling. Contents of the course will examine historical aspects of counseling professions, professional counseling roles, professional organizations, consultation models, professional preparation standards, and credentialing. It will also introduce appropriate ethical codes for conduct and study case studies representing ethical dilemmas a counselor may face in schools, agencies, and private practice.

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Term	CRN	Section	Session/Dates	Days	Location	Time		
2018 Summer	10480	001	Third 4 Weeks	MW	HH314	2:00pm - 4:35pm		
Session								

#### HDCO 506. School Counsel Programs. 3 Credits. (3 Lec) Su

PREREQUISITE: Graduate standing in counseling program. Foundations of the school counseling profession including historical and conceptual perspectives of the field, and the knowledge and skills necessary to be a professional school counselor. Particular emphasis will be placed on a thorough understanding of planning, design, implementation, and evaluation of comprehensive school counseling programs.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10481	001	Second 4	MTW	WIL1130	8:00am - 11:30am
Session			Weeks			

#### HDCO 508. Counseling Theories I. 3 Credits. (3 Lec) Su

PREREQUISITE: Graduate standing in counseling program. Students will learn a wide range of systems theories used in the diagnosis and treatment of individuals, couples, children, and families.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10482	001	Third 4 Weeks	MW	HH314	8:00am - 10:35am
Session						

#### HDCO 524.: Theory and Practice. 3 Credits. (3 Lec) Su

PREREQUISITE: Graduate standing in counseling program. The study of consultation and crisis counseling theories, strategies, and models. Includes specific applications related to collaboration among schools, mental health agencies, and private practitioners.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11094	001	Third 4 Weeks	MW	WIL1121	11:00am - 1:35pm
C:						

#### HDCO 526. Adventure Counseling. 3 Credits. (3 Lec) On Demand

PREREQUISITE: Graduate standing in counseling program. An introduction to the theory and practice of adventure-based counseling and experiential learning. The course will focus on the goals, concepts, and techniques of adventure work. Students will learn numerous adventure games, problem-solving initiatives, and how to design adventure programs.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10483	001	Intersession	R	ROBH210	8:00am - 9:00am
2018 Summer Session	10483	001	Intersession	R	ROM304	9:10am - 11:40am

#### HDCO 551. Appraisal. 3 Credits. (2 Lec, 1 Lab) Su

PREREQUISITE: HDCO 571 and graduate standing in counseling program. Topics include test standardization, reliability and validity; developing understanding of appraisal instruments and needs assessment used with individuals and systems; using information derived from selected appraisal instruments.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10484	001	Second 4	MW	HH314	2:00pm - 4:35pm
Session			Weeks			

**HDCO 556. Sexuality Counseling. 3 Credits.** (2 Lec, 1 Lab) On Demand PREREQUISITE: HDCO 510, Graduate standing in counseling program. Exploration of sexual issues and the counseling process. Examination of foundations needed to respond to clients' sexual concerns.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11362	001	Third 4 Weeks	MW	HH117	2:00pm - 4:35pm
C:						

#### HDCO 558. Career Counseling. 2 Credits. (2 Lec) Su

PREREQUISITE: Graduate standing in counseling program. This course will prepare the student in the area of career guidance and counseling. Emphasis will be placed on the understanding of career development theories, use of occupational informational sources including computer programs, assessment of the individual and various working environments, and the design of career developmental programs from elementary school through retirement. The student will also be introduced to the impact social issues have on work, leisure and families.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10485	001	Third 4 Weeks	TR	HH314	2:00pm - 4:35pm
Cassian						

# HDFS - Human Development & Family Sciences

## HDFS 101IS. Indiv and Fam Dev: Lifespan. 3 Credits. (3 Lec) F,S

Su, On Demand Examination of individual growth, development, and well-being within families across the lifespan from conception to death. Emphasis on classical and contemporary individual developmental, and family theories, current research, and practical applications for practitioners, teachers, and parents.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11439	802	First Half	-	-	-
Session			Session			
2018 Summer	11440	801	First Half	-	-	-
Session			Session			
2018 Summer	11656	803	Fourth 4 Weeks	-	-	-
Session						

#### HDFS 261. Adult Development and Aging. 3 Credits. (3 Lec) $\boldsymbol{S}$

PREREQUISITE: HDFS 101IS or EDEC 160 for majors and social science core for non-majors. Focus on the adult stages of the life span and families with adult children; issues include intergenerational relationships; gender differences in individual, family, and career development; and the demographic and economic consequences of an aging population.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11437	801	First 4 Weeks	-	-	-
Session						

### HDFS 263. Relationships and Fam Systems. 3 Credits. (3 Lec) $F,\!S$

PREREQUISITE: Sophomore standing. Relationship development across the life cycle from a family systems perspective. Relationship dynamics through major relationship transitions including couple formation, cohabitation, marriage, parenthood, death, divorce, and remarriage will be examined. The diversity of family experiences will be emphasized.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11436	801	First Half	-	-	-
Session			Session			

HDFS 371. Research Methods in HHD. 3 Credits. (3 Lec) F,S,Su, On Demand PREREQUISITE: Math core completed with a grade of C or better and junior standing in major. Prepares Health and Human Development students to become informed consumers of research. Research principles for both quantitative and qualitative research are covered. Readings and other class materials ensure that students will understand how research in HHD enriches human well-being.

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Term	CRN	Section	Session/Dates	Days	Location	Time			
2018 Summer Session	11434	802	Non-standard term dates 07- MAY-18 27- JUL-18	-	-	-			
2018 Summer Session	11435	801	Non-standard term dates 14- MAY-18 06- IUL-18	-	-	-			

#### HDFS 450. Curric Dev in FCS Education. 3 Credits. (2 Lec, 1 Lab) S

How to plan, develop, teach, supervise, and evaluate programs in family and consumer sciences education. A second focus will be to learn about responsible actions and decision making as leaders in family, community, and work settings through the use of ECCLA

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11657	001	Full Semester	-	-	-
Session						

#### HDFS 465R. Family Law & Public Policy. 3 Credits. (3 Lec) F

PREREQUISITE: HDFS 263, HDFS 371 or equivalent, senior standing or permission of instructor. An in-depth review of current laws and public policies impacting family well-being including marriage, domestic partnership, divorce, child custody, welfare, foster care, ICWA, and adoption. The impact of workplace and health care policies on families is also examined.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11432	801	First Half	-	-	-
Session			Session			

# **HDFS 491. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand Max 12 cr. PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need,

Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11674	001	First Half	-	-	-
Session			Session			

**HDFS 494. Seminar/Workshop. 1 Credit.** (1 Sem; 4 cr max) On Demand Max 4 cr. PREREQUISITE: Senior standing. Topics offered at the upper division level that are not covered in regular courses. Students participate in preparing and presenting class materials.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11428	001	Full Semester	R	JABS407	8:45am - 9:50am
Session						

HDFS 572. Professional Practicum. 2-6 Credits. (2-6 Lab; 9 cr max) F,S Max 9 cr. PREREQUISITE: EDEC 555, HDCO 554, graduate standing and consent of instructor. Practicum experience in the field of human development.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11425	001	Intersession	-	-	-
Session						

# HDFS 588. Professional Development. 1-3 Credits. (1-3 Lec; 3 cr max) On

Demand

Max 3 cr. This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11423	850	Full Semester	-	-	-
Session						

# **HORT - Horticulture & Landscape Des**

## $\textbf{HORT 345. Market Gardening. 3 Credits.} \ (3 \ Lec) \ Su$

PREREQUISITE: HORT 105. Focus is on the production of quality vegetable, herb and flower products for sale through local, regional or non-traditional marketing avenues. Special attention is made to present and analyze sustainable food crop production systems.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10548	001	First 4 Weeks	MTWR	HORTFARM	8:00am - 10:35am
Session						

# **HSTA** - History-American

#### $\textbf{HSTA 101IH. American History I. 4 Credits.} \ (3 \ Lec)$

An examination of the colonial world of the Americas and the development of the United States as a nation.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11626	801	Second Half	-	-	-
Session			Session			

#### HSTA 102IH. American History II. 4 Credits. (3 Lec)

An examination of the United States after the Civil War through the 20th Century.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11100	801	First Half	-	-	-
Session			Session			

#### HSTA 160D. Introduction to the Am West. 4 Credits. (3 Lec)

Alternate Even Years Introduction to the American West examines the conquest, settlement, and development west of the Mississippi River.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11389	801	Second Half	-	-	-
Session			Session			

#### HSTA 322. Am History: WWII to Present. 3 Credits. (3 Lec)

Political, cultural, and economic history of the U.S. since the end of WWII.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11101	801	First Half	-	-	-
Session			Session			

# **HSTR** - History-World

#### HSTR 101IH. Western Civilization I. 4 Credits. (3 Lec, 1 Rct) F,S,Su

Survey of the ancient Near East, Greece, Rome, and the European world through 1600. Emphasis on social, economic, and cultural history.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10413	801	First Half	-	-	-
Session			Session			

#### HSTR 205CS. The World Environment. 3 Credits. (3 Lec)

Examines the history, science, and ethics of risk, focusing on the complex relationship of science, technology, and risk in modern age. Includes exploration of knowledge production in science and technology; case studies such as industrial health and safety, the atomic age, "natural" disasters, and global warming to understand how risk has been defined, perceived, and remedied; and team research projects on such topics as automobile safety, earthquakes, and maquiladores.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11102	801	First Half	-	-	-
Session			Session			

## HSTR 436. Armed Conflict for Moderan Latin America. 3 Credits. (3 Lec, D)

PREREQUISTIE: HSTR 130 or HSTR 102IH or junior standing or consent of instructor. Considers the roots and outcomes of different armed conflicts in modern Latin America, including foreign intervention, revolutionary conflict, state violence, and extralegal violence.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11000	801	First Half	-	-	-
Session			Session			

#### HTH - Health

#### HTH 220. Human Sexuality. 3 Credits. (3 Lec) F,S Su On Demand

A study of all aspects of human sexuality including the sexual reproductive systems, sexual behaviors, contraception, gender roles, sexual functioning, and sexually transmitted diseases.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10596	801	First 4 Weeks	-	-	-
Session						

#### HTH 455. The Ethic of Care. 3 Credits. (3 Lec) F,S,Su On Demand

PREREQUISITE: HDFS 101IS, PSYX 100 or SOCI 101 and junior standing. This course, intended for students interested in working in human service professions (education, health, social work, counseling, human relations and resources) will focus on understanding and applying the theory of the ethic of care in real world situations. Theoretical support for the ethic of care found in diverse areas of philosophy, social justice, education, feminism, parenting, nursing, theology, and medicine will be explored. Utilizing a service learning approach, students will be engaged in understanding theories related to the ethic of care through both in-class lecture and discussion and outreach in the community.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10581	001	First 4 Weeks	MTWR	HH117	8:00am - 10:35am
Section						

# **IMID - Immunology Infectious Diseases**

#### IMID 521. Laboratory Rotation I. 2 Credits. (1 Lab) F

PREREQUISITE: Must be a first year IMID Graduate Student. An independent scientific project within a IMID research laboratory. Student should identify a question, master the necessary methods, collect and analyze data, and interpret how the data addresses the question. Final results are presented in a 15-minute departmental seminar.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11295	001	Full Semester	-	-	-
Session						

#### IMID 522. Laboratory Rotation II. 2 Credits. (1 Lab) S

PREREQUISITE: Must be a first year IMID Graduate Student. The IMID laboratory in which IMID 522 is performed must be different from the laboratories in which IMID 521 was performed. An independent scientific project within a IMID research laboratory. Student should identify a question, master the necessary methods, collect and analyze data, and interpret how the data addresses the question. Final results are presented in a 15-minute departmental seminar.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11296	001	Full Semester	-	-	-
Cassian						

#### IMID 523. Laboratory Rotation III. 2 Credits. (1 Lab) S

PREREQUISITE: Must be a first year IMID Graduate Student. The IMID laboratory in which IMID 523 is performed must be different from the laboratories in which IMID 521 and IMID 522 were performed. An independent scientific project within a IMID research laboratory. Student should identify a question, master the necessary methods, collect and analyze data, and interpret how the data addresses the question. Final results are presented in a 15-minute departmental seminar. An independent scientific project with a IMID research laboratory.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11297	001	Full Semester	-	-	-
Session						

#### IMID 594. Seminar. 1 Credit. (1 Sem; 4 cr max) F,S

Max 4 cr. PREREQUISITE: Graduate standing or seniors by petition. Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11406	001	Full Semester	T	-	2:00pm - 2:50pm
Session						

# **KIN - Kinesiology**

## KIN 221. Hlth Anatomy & Physiology. 3 Credits. (3 Lec) F,Su On Demand

This course will focus on the key elements of anatomy and physiology necessary for students in allied health professions, specifically those who will work the areas of community health, health enhancement education, health promotion, and kinesiology. The aim of this course is for students to demonstrate working knowledge of the muscular, skeletal, nervous, cardiovascular, and respiratory, endocrine, and digestive systems, as well as body metabolism.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11398	801	Full Semester	-	-	-
Session						

#### KIN 320. Exercise Physiology. 4 Credits. (3 Lec, 1 Lab) F,S

PREREQUISITE: Grade of "C" or better in BIOH 201 or KIN 221, or permission of instructor. Topics include factors and mechanisms involved with causing changes and adaptations in the physiological responses to training and participating in strength and endurance sports and activities. Lectures and labs emphasize explaining common observations and practices from the physiological view point.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11658	001	First 4 Weeks	MTWR	ROM203	8:00am - 10:35am
2018 Summer Session	11659	002	First 4 Weeks	MTWR	ROM203	10:45am - 12:45pm

#### KIN 322. Kinesiology. 4 Credits. (3 Lec, 1 Lab) F,S

PREREQUISITE: BIOH 201 or KIN 221, and M core or permission of instructor. Emphasis on the effects of joint structures and muscles on movement of the upper extremity, lower extremity, and spine while providing an introduction to the principles of hiomechanics

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11660	001	Second 4 Weeks	MTWR	ROM203	8:00am - 10:35am
2018 Summer Session	11661	002	Second 4 Weeks	MTWR	ROM203	10:45am - 12:45pm

#### KIN 325R. Biomechanics. 4 Credits. (3 Lec, 1 Lab) F,S

PREREQUISITE: HDFS 371, KIN 322, M 151Q or M 161Q, and PHSX 205. COREQUISITE: STAT 216Q. This course emphasizes the effects of structure, motion, forces, and their effects on and within the human body using both qualitative and quantitative analyses. Additional emphasis will be placed on the development of critical thinking skills associated with biomechanics-related research and interpretation.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11399	001	First Half Session	-	-	-
2018 Summer Session	11400	002	First Half Session	-	-	-

#### KIN 491. Special Topics. 3 Credits. (1-4 Lec; 12 cr max) On Demand

Max 12 cr. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11364	003	First Half Session	-	-	-
2018 Summer	11365	002	First Half	-	-	-

# **LING-Linguistics**

#### LING 210IH. Intro to Language/Linguistics. 3 Credits. (3 Lec) F,S

Examines the nature and function of linguistic systems, the psychology of language, the relationship between language and culture, usage patterns, linguistic variety and change, and levels of linguistic analysis.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11176	801	First 4 Weeks	-	-	-
Section						

#### LIT - Literature

#### LIT 110IH. Introduction to Literature. 3 Credits. (3 Lec) F,S

Introduction to basic concepts including but not limited to: plot, character, theme, symbol, and the primary literary modes of poetry, fiction, and drama. Students will be introduced to terms through a standard handbook which should accommodate all future English courses.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11679	801	Second Half	-	-	-
Session			Session			

#### LIT 169IH. Literature as Popular Culture. 3 Credits. (3 Lec) S

An exploration of the interrelationship between high and low (popular) cultural traditions, emphasizing the social and artistic significance of popular cultural texts.

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	Term	CRN	Section	Session/Dates	Days	Location	Time	
	2018 Summer	11392	001	First 4 Weeks	MTWR	WIL1125	2:00pm - 4:35pm	
	Session							

#### LIT 202CS. The Environmental Imagination. 3 Credits. (3 Lec) $\boldsymbol{S}$

An exploration of major developments in the study of environmental literature that introduces students to current debates and discussions about how diverse cultures have imagined the human place in the nonhuman world.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11393	801	First Half	-	-	-
Session			Session			

#### LIT 285D. Mythologies. 3 Credits. (3 Lec) F,S

The study of specific cultural mythologies to explore the nature, function, and theory of myth

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10547	801	First Half	-	-	-
Session			Session			

#### LIT 308. Multicultural Literature. 3 Credits. (3 Lec) S

PREREQUISITES: Sophomore standing and any 200-level Literature course. Focuses on literature by American minorities, women, and ethnic subcultures.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11680	001	Second 4	-	-	-
Session			Weeks			

#### LIT 335. Women and Literature. 3 Credits. (3 Lec) F

Alternate Odd Years PREREQUISITE: Sophomore standing and a 200-level LIT course. A study of the relationship between women and literature, with some attention to feminist approaches to critical interpretation.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11177	801	Second Half	-	-	-
Session			Session			

# LIT 382. Literature for Children and Adolescents. 3 Credits. (3 Lec) F alternate years, to be offered even years.

PREREQUISITE: Sophomore standing and a 200-level LIT course. Studies in selected literary works for children and young adults. The course may focus on genres, authors, themes, and/or critical approaches.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11178	801	First Half	-	-	-
Session			Seccion			

#### **LRES - Land Resources & Env Sci**

#### LRES 536. Ecology of Invasive Plants II. 1 Credit. (1 Lec)Su

PREREQUISITES: LRES 569 Through this course, students will learn to organize plant population data and analyze it to determine population temporal and spatial dynamics. In addition they will learn how to apply the conclusions drawn from the analysis to invasive species management decisions.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11395	801	Non-standard	-	-	-
Session			term dates 08- JUN-18 22-			
			JUN-18			

## LRES 557. Thermal Biology in YNP. 2 Credits. (1 Lec, 1 Lab) Su

2 cr. LEC 1 RCT/DIS 1 PREREQUISITE: B.S. Science/Science Education; Enrollment limited to M.S. Science Education Graduate Program A survey of the ecology of important organisms common in thermal habitats of Yellowstone National Park, including a review of different life forms (prokaryotes and eukaryotes) and their modes of metabolism, and the physical, and chemical habitats that define their environment. Course includes lecture, laboratory, and field components. Students will be asked to design curricula for K-12 audiences.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11215	001	Non-standard	-	-	-
Session			term dates 09- IUL-18 13-			
			JUL-18			

#### LRES 562. Land Rehab Field Problem. 2 Credits. (2 Lab) Su

alternate even years. PREREQUISITE: ENSC 460, ENSC 461. Extended field trip to numerous drastically disturbed sites across the Northern Plains. On-site review of land rehabilitation problems, solutions, and methodologies. Participation by industry, regulatory agency staff, and rehabilitation professionals will occur at most sites.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11675	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 25-			
			MAY-18			

#### LRES 569. Ecol of Invasive Plants in GYE. 2 Credits. (1 Lec, 1 Lab) Su

2 cr. LEC 1 LAB 1 Current theories on what makes species invasive and what ecosystem conditions invite or resist non-indigenous plant species will be considered. Direct involvement in field research associated with testing methodology for monitoring the invasive potential of several exotic species in the otherwise pristine mountain environments.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11217	001	Non-standard	-	-	-
Session			term dates 18-			
			JUN-18 22-			
			JUN-18			

#### LRES 591. Special Topics. 1-4 Credits. (1 Rct; 12 cr max) On Demand

1 - 4 cr. Maximum 12 cr. PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11508	002	Intersession	-	-	-
2018 Summer Session	11199	802	Intersession	-	-	-
2018 Summer Session	11218	003	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-

## **LS-Liberal Studies**

#### LS 101US. Interdisciplinary Ways of Knowing. 3 Credits. (3 Sem) F

Introduction to the processes of academic inquiry through examination of topics in disciplines encompassed by the Fine Arts, Humanities, Natural Sciences, and Social Sciences.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11384	801	Second Half	-	-	-
Session			Session			

#### LS 301. Integrative Seminar. 1-3 Credits. (1-3 Sem; 6 cr max) F,S

PREREQUISITE: University Seminar and sophomore standing. The integration of knowledge, theories, and concepts across different disciplines in the Fine Arts, Humanities, Natural Sciences, and Social Sciences.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11515	803	Second Half	-	-	-
Session			Session			
2018 Summer	11146	801	First Half	-	-	-
Session			Session			

#### $\textbf{LS 460. Teaching Internship. 2 Credits.} \ (2 \ \text{Ind}) \ F, S$

PREREQUISITE: US core and consent of instructor. As co-facilitators of a section of LS 101US, students will acquire and have the opportunity to practice classroom teaching strategies and mentoring skills.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11509	001	Full Semester	-	-	-
Session						

## M - Mathematics

#### M 065. Pre-Algebra. 4 Credits. (4 Lec) F,S

Offered by Gallatin College. This instructor-taught course covers basic concepts relating to fractions, decimals, ratios, proportions, percent, selected geometry topics, topics of signed numbers, and 1-variable linear equations. The course is offered as a review and/or preparation for further studies in Mathematics. This course is equivalent to M 085. Common final.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11339	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

#### M 096. Survey of Algebra. 4 Credits. (4 Lec) F,S,Su

Offered by Gallatin College. PREREQUISITE: M 065 or M 085 or Math Placement Test within the past 12 months. Intended for students pursuing majors requiring the M 121Q track and/or chemistry. This instructor-taught course initiates development in students' ability to organize thought processes and systematically solve problems while preparing students for studies in other courses. Topics include linear equations and inequalities and their graphs, systems of linear equations, exponents, polynomials, factoring, rational expressions, and square roots. This course is equivalent to M 097.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10900	002	First 4 Weeks	MTWR	JABS305	9:00am - 10:45am
2018 Summer Session	10900	002	First 4 Weeks	MTWR	JABS305	2:00pm - 3:45pm
2018 Summer Session	10453	001	Non-standard term dates 14- MAY-18 06- JUL-18	MTWR	HAM228	8:45am - 10:30am
2018 Summer Session	11340	099	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-

# M 105Q. Contemporary Mathematics (formerly M 145Q, Math for Liberal Arts). 3 Credits. (3 Lec)F, S, Su

PREREQUISITE: M 088, M 096, M 097 or Math Placement Test within the past 12 months. Formerly M 145Q. Designed to give liberal arts students the skills required to understand and interpret quantitative information that they encounter in the news and in their studies, and to make numerically-based decision in their lives. Topics include working with large numbers and units, linear and exponential relations, financial mathematics, and essentials of probability and statistics. Common final.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11232	001	First Half Session	-	-	-
2018 Summer Session	11233	002	Second Half Session	-	-	-
2018 Summer Session	11234	801	Non-standard term dates 14- MAY-18 06- JUL-18	-	-	-

## M 121Q. College Algebra. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: M 096, M 097 or Math Placement Test within the past 12 months. Intended for students preparing for precalculus or calculus. Further development of algebraic skills through the study of linear, quadratic, polynomial, exponential, and logarithmic functions. COMMON EXAMS.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10745	003	Second 4 Weeks	MTWR	WIL1125	11:00am - 1:35pm
2018 Summer Session	10964	002	First 4 Weeks	MTWR	WIL1125	8:00am - 10:35am
2018 Summer Session	11189	801	Non-standard term dates 14- MAY-18 06- JUL-18	-	-	-
2018 Summer Session	11190	004	Third 4 Weeks	MTWR	WIL1125	2:00pm - 4:35pm
2018 Summer Session	10594	001	First 4 Weeks	MTWR	WIL1116	11:00am - 1:35pm

#### M 133Q. Geometry & Measure K-8 Teachers. 3 Credits. (3 Lec)

PREREQUISITE: A grade of C or better in M 132. The study of geometry and geometric measurement for prospective elementary and middle school teachers, including synthetic, transformational, and coordinate geometry, constructions, congruence and similarity, 2-dimensional and 3-dimensional measurement, and problem solving, COMMON FINAL ONLY.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11369	001	First Half	-	-	-
Session			Session			

#### M 151Q. Precalculus. 4 Credits. (4 Lec) F,S,Su

PREREQUISITE: M 121Q or Math Placement Test within the past 12 months. Functions, graphs, and the use symbols for expressing mathematical thoughts. Polynomials, rational, exponential, logarithmic, and trigonometric functions. COMMON EXAMS.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10352	001	First 4 Weeks	MTWR	WIL1148	9:00am - 10:45am
2018 Summer Session	10352	001	First 4 Weeks	MTWR	WIL1148	2:00pm - 3:45pm
2018 Summer Session	10353	002	Second 4 Weeks	MTWR	WIL1121	9:00am - 10:45am
2018 Summer Session	10353	002	Second 4 Weeks	MTWR	WIL1121	2:00pm - 3:45pm
2018 Summer Session	11191	801	Non-standard term dates 14- MAY-18 06- JUL-18	-	-	-

#### M 161Q. Survey of Calculus. 4 Credits. (4 Lec) F,S,Su

PREREQUISITE: M 121Q or Math Placement Test within the past 12 months. A survey of basic calculus including limits, differentiation, and integration with applications to business, biology, and social science problems. COMMON FINAL ONLY.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10354	001	First 4 Weeks	MTWR	WIL1142	11:00am - 12:45pm
2018 Summer Session	10354	001	First 4 Weeks	MTWR	WIL1142	6:00pm - 7:45pm
2018 Summer Session	10355	002	First 4 Weeks	MTWR	WIL1124	9:00am - 10:45am
2018 Summer Session	10355	002	First 4 Weeks	MTWR	WIL1124	2:00pm - 3:45pm
2018 Summer Session	11192	801	Non-standard term dates 14- MAY-18 06- JUL-18	-	-	-
2018 Summer Session	11193	003	Second 4 Weeks	MTWR	WIL1138	11:00am - 12:45pm
2018 Summer Session	11193	003	Second 4 Weeks	MTWR	WIL1138	6:00pm - 7:45pm
2018 Summer Session	11194	802	Intersession	-	-	-
2018 Summer Session	11567	004	Third 4 Weeks	MTWR	WIL1134	9:00am - 10:45am
2018 Summer Session	11567	004	Third 4 Weeks	MTWR	WIL1134	2:00pm - 3:45pm

#### M 171Q. Calculus I. 4 Credits. (4 Lec) F,S,Su

PREREQUISITE: M 151Q or Math Placement Test within the past 12 months. Functions, elementary transcendental functions, limits and continuity, differentiation, applications of the derivative, curve sketching, and integration theory. COMMON EXAMS.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10714	003	Second 4 Weeks	MTWR	WIL1123	9:00am - 10:45am
2018 Summer Session	10714	003	Second 4 Weeks	MTWR	WIL1123	2:00pm - 3:45pm
2018 Summer Session	11478	004	Second Half Session	-	-	-
2018 Summer Session	10356	001	First 4 Weeks	MTWR	WIL1143	9:00am - 10:45am
2018 Summer Session	10356	001	First 4 Weeks	MTWR	WIL1143	2:00pm - 3:45pm
2018 Summer Session	10357	002	Second 4 Weeks	MTWR	WIL1125	9:00am - 10:45am
2018 Summer Session	10357	002	Second 4 Weeks	MTWR	WIL1125	2:00pm - 3:45pm

#### M 172Q. Calculus II. 4 Credits. (4 Lec) F,S,Su

PREREQUISITE: M 171Q. Methods of integration, applications of the integral, infinite sequences and series including Taylor series, parametric and polar equations. COMMON EXAMS.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10715	003	Second 4 Weeks	MTWR	WIL1124	9:00am - 10:45am
2018 Summer Session	10715	003	Second 4 Weeks	MTWR	WIL1124	2:00pm - 3:45pm
2018 Summer Session	10358	001	First 4 Weeks	MTWR	WIL1141	9:00am - 10:45am
2018 Summer Session	10358	001	First 4 Weeks	MTWR	WIL1141	2:00pm - 3:45pm
2018 Summer Session	10359	002	Second 4 Weeks	MTWR	WIL1138	9:00am - 10:45am
2018 Summer Session	10359	002	Second 4 Weeks	MTWR	WIL1138	2:00pm - 3:45pm
2018 Summer Session	11195	004	Second Half Session	-	-	-

#### M 221. Introduction to Linear Algebra. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: M 166Q or M 172Q. Matrix algebra, systems of linear equations, determinants, vector algebra and geometry in Euclidean 3-space, eigenvalues, eigenvectors.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10173	001	First 4 Weeks	MTWR	WIL1123	11:00am - 1:35pm
2018 Summer Session	11258	002	Second 4 Weeks	MTWR	WIL1116	11:00am - 1:35pm

#### M 273Q. Multivariable Calculus. 4 Credits. (4 Lec) F,S,Su

PREREQUISITE: M 172Q. Topics in two and three dimensional geometry. Manipulation and application of vectors. Functions of several variables, contour maps, graphs, partial derivatives, gradients, double and triple integration, vector fields, line integrals, surface integrals, Green's Theorem, Stokes' Theorem, the Divergence Theorem. COMMON FINAL ONLY.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10360	001	First 4 Weeks	MTWR	WIL1139	9:00am - 10:45am
2018 Summer Session	10360	001	First 4 Weeks	MTWR	WIL1139	2:00pm - 3:45pm
2018 Summer Session	10443	002	Second 4 Weeks	MTWR	WIL1143	9:00am - 10:45am
2018 Summer Session	10443	002	Second 4 Weeks	MTWR	WIL1143	2:00pm - 3:45pm
2018 Summer Session	11568	003	Second 4 Weeks	-	-	-

## M 274. Introduction to Differential Equation. 4 Credits. (4 Lec) F,S,Su

PREREQUISITE: M 172Q. An introduction to qualitative, quantitative, and numerical methods for ordinary differential equations. Topics include modeling via differential equations, linear and nonlinear first order differential equations and systems, elementary phase plane analysis, forced oscillations, and Laplace transform techniques. COMMON FINAL ONLY.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10174	001	First 4 Weeks	MTWR	WIL1144	9:00am - 10:45am
2018 Summer Session	10174	001	First 4 Weeks	MTWR	WIL1144	2:00pm - 3:45pm
2018 Summer Session	10175	002	First 4 Weeks	MTWR	WIL1134	9:00am - 10:45am
2018 Summer Session	10175	002	First 4 Weeks	MTWR	WIL1134	2:00pm - 3:45pm
2018 Summer Session	11569	003	Second 4 Weeks	MTWR	WIL1134	9:00am - 10:45am
2018 Summer Session	11569	003	Second 4 Weeks	MTWR	WIL1134	2:00pm - 3:45pm

M 419. Ratio and Proportion in School Mathematics. 3 Credits. (3 Lec) Su Alternate Odd Years PREREQUISITE: For undergraduate credit: A grade of C or better in M 242 or M 234 and junior standing. For graduate credit: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Develop knowledge of ratio and proportion necessary to teach standards-based school mathematics. Connect ratio, rate, and proportion to elementary, middle, and high school topics. Explore use of manipulative materials and technologies, and discuss related pedagogical issues and national standards.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11411	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

# M 424. Algebraic Thinking and Number Sense in the Middle Grades. 3 Credits. $(3\ Lec)$

PREREQUISITE: A grade of C or better in M 234 or M 242, and junior standing. Develop algebraic knowledge necessary to teach standards-based middle school mathematics. Investigate the underlying conceptual structure of topics in algebra and number appropriate to middle school. Explore the use of manipulative materials and technologies, and discuss related pedagogical issues and national standards.

Term	CRN	Section	Session/Dates	Days	Location	Time	
2018 Summer	11570	001	Non-standard	-	WIL1133	-	
Session			term dates 18-				
			JUN-18 06-				
			II II -48				

#### M 491. Special Topics. 1-4 Credits. (1-4 Lec; 12 cr max) On Demand

PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11370	002	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

#### M 517. Advanced Mathematical Modeling for Teachers. 3 Credits. (3 Lec) Su

for two consecutive years; alternates with M 526 PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Focus on the use of modeling to solve real-world problems. Topics include the modeling process, an overview of relevant technology, strategies to engage students in modeling in the secondary classroom, and classroom assessment of modeling activities. Extensive use of mathematics to explore application areas, leading to the construction of original models.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11571	801	Intersession	-	-	-
Consinu						

#### M 518. Statistics For Teaching. 3 Credits. (3 Lec) Su

Distance format PREREQUISITE: Graduate standing in mathematics or science education, teaching endorsement in mathematics or science, or consent of instructor. Stochastic concepts including probabilistic underpinnings of statistics, measures of central tendency, variability, correlation, distributions, sampling, and simulation. Exploratory data analysis including experiments, surveys, measures of association and inferential statistics. Discussion of methods for teaching statistics in secondary mathematics and science.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10334	801	Intersession	-	-	-
Session						

# M 519. Ratio and Proportion in School Mathematics. 3 Credits. (3 Lec)Su alternate years, to be offered odd years.

PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Develop knowledge of ratio and proportion necessary to teach standards-based school mathematics. Connect ratio, rate, and proportion to elementary, middle, and high school topics. Explore use of manipulative materials and technologies, and discuss related pedagogical issues and national standards.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11412	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

# M 520. Standards-Based Mathematics for Teaching. 3 Credits. (3 Lec) Su, to be offered odd years.

Distance format. PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Study of key content themes and connections in algebra, geometry, probability/data analysis, number, and measurement with a focus on mathematical practices. Exploring, extending, designing, and teaching standards-based classroom activities for middle/high school students and reflecting on student outcomes.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11372	801	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

# M 523. Number Structure for Teachers. 3 Credits. (3 Lec) Su, to be offered even

Distance format. PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Develop the relationship and distinction between the mathematics that underlies the structure of number and the learning and teaching of number structure in schools. Explore representation, abstraction, and basic proof in the context of number and operations. Develop foundations of the real number system and examine relevant research about students' understanding of number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11572	001	Non-standard	-	WIL1133	-
Session			term dates 18-			
			JUN-18 06-			
			II II -18			

#### M 524. Linear Algebra for Teachers. 3 Credits. (3 Lec)

Su. Distance format. PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. Algebraic systems, special matrices, determinants, vector spaces, and linear programming. Includes applications relevant to industry and business and connections to topics in secondary mathematics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11373	001	Non-standard	-	-	-
Session			term dates 18-			
			JUN-18 06-			
			JUL-18			

#### M 570. Individual Problems. 1-3 Credits. (1-3 Ind; 6 cr max) F,S,Su

PREREQUISITE: Graduate standing, consent of instructor, approval of department head and Dean of Graduate Studies. Directed research and study on an individual

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10177	001	Full Semester	-	-	-
Session						

#### M 576. Internship. 2-12 Credits. (2-12 Ind; unlimited max) F,S,Su

PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10324	001	Full Semester	-	-	-
Session						

M 588. Professional Development. 1-3 Credits. (1-3 Lec; 3 cr max) On Demand PREREQUISITE: Graduate standing, teaching experience and/or current employment in a school organization, consent of instructor and Dean of Graduate Studies. Courses offered on a one time basis to fulfill professional development needs of in-service educators. A specific focus is given to each course which is appropriately subtitled. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11500	754	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11028	850	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-

## MART - Media Arts

#### MART 145RA. Web Design. 3 Credits. (2 Lec, 1 Lab) F,S

Basic design principles and how these principles apply to web site construction. HTML and HTML editors. Laboratory projects reflect practical usage of course concepts. Cross-listed with CS 145RA.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10652	801	Second Half	-	-	-
Session			Session			
2018 Summer	10653	002	Second Half	-	-	-
Session			Session			
2018 Summer	10654	803	Second Half	-	-	-
Session			Session			

# **MB** - Microbiology

#### MB 538. Cell & Molecular Biol. 2 Credits. Su

PREREQUISITE: BIOM 360, BCH 380 or BIOL 402, MB 536, or the equivalent. COREQUISITE: Graduate standing or petition approval from the Vice Provost of Graduate Education. An inquiry-based laboratory in prokaryotic and eukaryotic C&MB provides training in microbiological techniques: recombinant DNA, phylogenetic analyses, growth, cell cycle regulation, gene expression, protein purification, and immunoassays. Current literature and laboratory discussions cover molecular approaches for investigating complex cellular mechanisms.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11652	001	Non-standard	-	-	-
Session			term dates 16-			
			JUL-18 20-			
			JUL-18			

## MB 540. Environmental Microbiology. 3 Credits. (3 Ind) F

PREREQUISITE: MB 536 and MB 541 or equivalent course. COREQUISITE: BS in biology or equivalent; Graduate standing or petition approval from the Vice Provost of Graduate Education. Biotechnology, industrial microbiology, antimicrobial chemotherapy, public health, epidemiology, climate change, food water, wastewater, extreme environments, space travel, biodegradation, bioremediation and bioaugmentation. Ideal for middle/high school/college teachers, and others in education/outreach, e.g., museums, zoos, National Parks, nature preserves, environmental health.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11142	801	Intersession	-	-	-
Session						

# MB 541. Microbial Genetics. 3 Credits. (3 Lec) Su alternate years, to be offered odd years.

Prokaryotes provide much of the understanding of fundamental genetics for all organisms, especially through in vivo and in vitro genetic tools. Transcription, translation, mutation and recombination are considered, so that science teachers understand of fundamentals of genetics. This course is intended for practicing teachers and those in the MSSE program.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11228	801	Intersession	-	-	-

## MB 547. Thermal Biology of YNP. 2 Credits. (1 Lec, 1 Lab) Su

Thermal Biology, an interdisciplinary science that incorporates biology, geology, and chemistry to discover where and under what conditions life can exist in the thermal features of Yellowstone National Park. As such, it lends itself easily to incorporation to most science curricula. The two goals of this are to: 1)provide a basic understanding of the ecology of a variety of life forms and their thermal habitats, and 2) provide a survey of observational techniques and hands-on activities appropriate for science educators.

CRN	Section	Session/Dates	Days	Location	Time
11216	001	Non-standard	-	-	-
		term dates 14-			
		MAY-18 03-			
		AUG-18			
		<b>CRN Section</b> 11216 001	Non-standard term dates 14- MAY-18 03-	11216 001 Non-standard - term dates 14- MAY-18 03-	11216 001 Non-standard term dates 14- MAY-18 03-

#### MB 591. Special Topics. 1-4 Credits. (1-4 Lec; 12 cr max) On Demand

PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11262	850	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11267	001	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-

#### MB 594. Seminar. 1 Credit. (1 Sem; 4 cr max) F,S

PREREQUISITE: Graduate standing or seniors by petition. Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material. There are separate sections for departmental seminar, general/environmental and biomedical microbiology journal clubs and graduate reading; consult the.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11444	001	Full Semester	-	-	-
Section						

#### **MEDS - Medical Science**

#### MEDS 440. Clinical Observation. 2 Credits. (2 Lab) F,S

PREREQUISITE: CHMY 141 and CHMY 143; BIOB 256 and BIOB 260; at least junior standing, GPA >3.0 and consent of instructor. This shadowing experience will provide students with the opportunity to observe providers in a clinical setting and position them to meet, in part, the requirements for application to health professional school.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11390	801	Full Semester	-	-	-
Session						

#### MEDS 500. Seminar. 1 Credit. (1 Sem; 4 cr max) On Demand

Max 4 cr. PREREQUISITE: WWAMI medical student or consent of the WWAMI Medical Program and Dean of The Graduate School. Yearly conference dealing with topics related to Montana's colorful medical history.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10201	001	Full Semester	-	-	-
Cossion						

MEDS 540. Blood, Cancer, Musculoskeletal. 7 Credits. (5 Lec, 2 Lab) Su PREREQUISITE: WWAMI Medical Student. This course familiarizes students with basic pathophysiologic mechanisms leading to disturbances of red cell, white cell, and platelet production, as well as abnormalities of hemostasis presenting clinical problems. The Musculoskeletal content will focus on clinical manifestations in the musculoskeletal system and pathophysiology of trauma, aging, infection, and inflammation. Pass/Fail only. WWAMI.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11671	001	Non-standard term dates 14-	-	-	-
Session			MAY-18 15-			
			JUN-18			

#### MEDS 541. Clinical Practicum. 1 Credit. (1 Lab) F.S.Su

PREREQUISITE: Graduate level standing and acceptance into Post-Bacc Pre-Med or M.S. Health Sciences program. A practical course for students going into the medical field to observe and learn about the services provided by different health care professionals at various stages of patient care. Prior to Summer 2015, MEDS 541 was MEDS 540.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10989	001	Full Semester	-	-	-
Session						

MEDS 550. Energetics & Homeostasis. 8 Credits. (4 Lec, 1 Lab, 3 Rct) Su PREREQUISITE: WWAMI Medical Student This course will involve integrated content in metabolism, nutrition, obesity, diabetes, gastrointestinal/liver physiology, and endocrinology. Additionally, this course includes relevant fundamental scientific principles in anatomy, pathology, and pharmacology. WWAMI Medical Education Program.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11031	001	First Half	-	-	-
Session			Session			

# **ML** - Modern Languages

#### ML 100IH. Intro to World Cultures. 3 Credits. (3 Lec)

Introduces students to a range of issues in the field of international studies through an interdisciplinary approach to world regions. Through lectures, discussion, and project-based learning, students gain knowledge of key cultural, historical, and economic concepts in an international context. Students develop an understanding of national, regional, and area studies models for learning about global issues.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11589	801	First Half	-	-	-
Session			Session			

#### ML 344. Instructional Perspectives. 1 Credit. (1 Lec; 3 cr max)

PREREQUISITE: FRCH 323 or FRCH 324; GRMN 330 or GRMN 331; SPNS 323 or SPNS 324. Max 3 cr. Students learn how various pedagogical approaches are realized through class discussion, observation, and practice under the direction of the faculty mentor.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11590	001	First 4 Weeks	-	-	-
2018 Summer Session	11591	002	Second 4 Weeks	-	-	-

#### **MUSE - Music-Education**

MUSE 530. Music, Society, Education. 3 Credits. (3 Lec) Su alternate years, to be offered odd years.

PREREQUISITE: EDEL 410, EDSD 410 Philosophical, historical, psychological and social foundations of music education. Music in public education, music curricula, aesthetics, and music learning theory.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10996	801	First Half	-	-	-
Session			Session			

# **MUSE 588. Professional Development. 1-3 Credits.** (1-3 Lec; 3 cr max) On Demand

PREREQUISITE: Graduate standing, teaching experience and/or current employment in a school organization, consent of instructor and Dean of Graduate Studies. Courses offered on a one-time basis to fulfill professional development needs of in service educators. A specific focus is given to each course which is appropriately subtitled. May be repeated.

be repeated.								
Term	CRN	Section	Session/Dates	Days	Location	Time		
2018 Summer Session	11551	750	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-		
2018 Summer Session	11330	850	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-		

#### MUSE 594. Seminar. 1 Credit. (1 Sem: 4 cr max) On Demand

Max 4 cr. PREREQUISITE: Graduate standing or seniors by petition. Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10601	001	Second Half	-	-	-
Session			Session			

## **MUSI - Music-General**

#### MUSI 101IA. Enjoyment of Music. 3 Credits. (3 Lec) S

Introduces students to the rich legacy of Western Art Music, defined as notated musical traditions in Europe and later in the USA from liturgical chant to the present. Explores the historical context that led to the development of important genres and influenced the lives of composers. Facilitates active listening and curious inquiry into the language of music.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11672	803	First Half Session	-	-	-
2018 Summer Session	11673	804	Second Half Session	-	-	-
2018 Summer Session	10852	801	First Half Session	-	-	-
2018 Summer Session	10918	802	Second Half Session	-	-	-

#### MUSI 106. Music Theory II. 3 Credits. (3 Lec) S

PREREQUISITE: MUSI 105. Continuation of study of materials used in the previous semester: diatonic harmony and analysis in the common practice style, musical notation and language, function and interaction of the elements of music.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10998	801	First Half	-	-	-
Session			Session			

#### MUSI 136. Keyboard Skills II. 1 Credit. (1 Lab) S

PREREQUISITE: MUSI 135 or placement audition and music major. COREQUISITE: MUSI 106. Continued study of keyboard theory and technique, creative activities, sight reading, and piano repertoire. For music majors.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11253	001	First Half	-	-	-
Session			Session			

#### MUSI 141. Aural Perception II. 1 Credit. (1 Lab) S

PREREQUISITE: MUSI 140. COREQUISITE: MUSI 106. Continuation of studies in ear training and sight-singing to develop aural perception of tonal and temporal relationships. Primarily for students with planned concentration in music.

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Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11254	001	First Half	-	-	-
Session			Session			

#### MUSI 203IA. American Popular Music. 3 Credits. (3 Lec) F,S

A study of the way in which American popular music is a product of the social, political, and historical context in which it developed, and in turn how this context was shaped by this music.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10746	801	First Half	-	-	-
Session			Session			
2018 Summer	10997	802	First Half	-	-	-
Session			Session			
2018 Summer	11015	803	Second Half	-	-	-
Session			Seccion			

#### MUSI 307IA. World Music. 3 Credits. (3 Lec) F,S

PREREQUISITE: Junior standing. Music, culture, and meaning within different traditions and styles from around the world.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10590	801	First Half	-	-	-
Session			Session			

#### MUSI 348. Ensemble. 1 Credit. (1 Lab. Max 8 cr)

PREREQUISITE: Successful audition. Selected students perform in small, coached instrumental and vocal ensemble performance. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10225	002	Full Semester	-	-	-
Session						

#### MUSI 450. Recital. 1 Credit. (1 Ind; max unlimited) F,S,Su

COREQUISITE: MUSI 395 or MUSI 495. Selection of appropriate program of works suited to student's abilities, preparation for performance. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10496	001	Intersession	-	-	-
Session						

#### MUSI 495. Applied Music IV. 1-2 Credits. (1-2 Stu; Max 8 Enrollments)

PREREQUISITE: MUSI 395 and successful audition. Continued study of techniques of performance and interpretation to develop musical ability, expressivity, accuracy, and stylistic awareness in student's performance area. May be repeated (maximum of eight enrollments).

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10497	001	Intersession	-	-	-
Cossion						

# MUSI 504. Studies in Hist and Analysis. 3 Credits. (3 Lec) Su alternate years, to be offered even years.

PREREQUISITE: MUSI 206, MUSI 301, MUSI 302. Review and study of the history of music, with an emphasis on specific works. Review and practice of analytical and theoretical procedures and concepts in a variety of musical genres and styles.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11653	801	First Half	-	-	-
Session			Session			

#### MUSI 550. Graduate Recital. 1 Credit. (1 Ind) F,S,Su

PREREQUISITE: MUED 560. Formal recital to include works from different eras.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10603	001	Full Semester	-	-	-
Session						

#### MUSI 595. Applied Music. 1-2 Credits. (1-2 Stu)F,S,Su

PREREQUISITE: MUSI 495 or demonstrated proficiency and consent of instructor. Advanced studies of techniques of performance and interpretation to develop musical ability, expression, accuracy and stylistic awareness in student's performance area. May be repeated.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10602	001	Intersession	-	-	-
Session						

# **MUST - Music-Technology**

#### MUST 544. Comp App Mus Ed. 3 Credits. (1 Lec, 2 Lab) Su

PREREQUISITE: Admission to the Master of Education with emphasis in Music program. Other graduate programs and non-degree-seeking graduate students by permission of instructor. An introduction to computer applications in music, including music notation, audio recording, and basic composition with audio and MIDI. This course is particularly geared toward music educators.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11557	801	Second Half	-	-	-
Session			Session			

## **NASX - Native American Studies**

# NASX 105D. Introduction to Native American Studies. 3 Credits. (2 Lec, 1 Rct) $F,\!S$

Su A survey of traditional and contemporary American Indian cultures, the historical development of the unique relationship between the federal government and Indian nations, and current issues among Indian peoples.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11116	001	Third 4 Weeks	MTWR	WIL1122	2:00pm - 4:35pm
2018 Summer Session	10524	801	First Half Session	-	-	-

#### NASX 232D. MT Indians: Cultures, Histories, Current Issues. 3 Credits. (3 Lec)

Movements of Indians into Montana. Social structures including kinship, political affiliations; military, warrior societies, and religion. Establishment of Montana's reservations; treaties and agreements with the federal government; vested rights of Indians; sovereignty and self-government; contemporary tribal governments; contemporary Indian societies; socioeconomic problems.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10678	801	Second Half	-	-	-
Session			Session			

# NASX 491. Special Topics. 1-4 Credits. (1-4 Lec; 12 cr max) On Demand PREREQUISITE: Course prerequisite as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number. Co-convened with NASX 591.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11117	801	Full Semester	-	-	-
Session						

## NASX 591. Special Topics. 1-4 Credits. (1-4 Lec; 6 cr max) On Demand

PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number. Co-convened with NASX 491.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11244	801	Full Semester	-	-	-
Session						

# **NRSG - Nursing**

#### NRSG 115. Nursing as a Profession. 2 Credits. (2 Lec) F,S

Su The purpose of this course is to initiate and foster the professional socialization process. Content and activities expose students to issues surrounding the profession of nursing, multiple roles of nursing in society and health care, and concepts related to the dimensions of nursing practice: nurse, client, health and environment.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11443	081	First Half Session	-	-	-
	11446	084	First Half Session	-	-	-
2018 Summer	10813	075	First Half	-	-	-
	10814	078	Session First Half	-	-	-
Session 2018 Summer	10446	001	Session Full Semester	-	-	-
Session 2018 Summer	10447	002	Full Semester	-	-	-
Session 2018 Summer	10448	040	Full Semester	-	_	-
Session 2018 Summer	10449	004	Full Semester	_	-	_
Session						

NRSG 220. Foundatns Ethcl Nrsng Recitatn. 2 Credits. (1 Lec, 1 Rct) F,S,Su PREREQUISITE: Consent of Instructor. Drawing on contemporary issues in bioethics this foundational course explores influential moral values, philosophical principles and theories as formal grounding for ethical decision making and action in health care. A broad historical, cultural and societal perspective is emphasized to provide the background for understanding the everyday ethical problems that health professionals encounter in their practices. A psychological and social framework of analysis is used to foster sensitivity, skills of analysis and ethical behavior in situations of moral conflict.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11447	081	First Half Session	-	-	-
2018 Summer Session	11449	082	First Half Session	-	-	-
2018 Summer Session	11450	084	First Half Session	-	-	-
2018 Summer Session	11451	085	Full Semester	-	-	-
2018 Summer Session	10815	075	First Half Session	-	-	-
2018 Summer Session	10817	078	Second Half Session	-	-	-
2018 Summer Session	10818	079	Second Half Session	-	-	-
2018 Summer Session	10822	076	First Half Session	-	-	-
2018 Summer Session	10450	001	First Half Session	-	-	-
2018 Summer Session	10451	002	First Half Session	-	-	-
2018 Summer Session	10452	020	First Half Session	-	-	-
2018 Summer Session	10551	021	First Half Session	-	-	-

NRSG 225. Fndtns Plng Prvdng Clin Nrs Cr. 4 Credits. (2 Lec, 2 Lab) F,S,Su PREREQUISITES: BIOH 201, BIOH 211, FCS 101IS, and BIOM 250. COREQUISITES: NRSG 238 or consent of instructor. Application of nursing principles, concepts and related skills for care of the individual needing assistance. The clinical decision-making process is utilized in the provision of nursing care in clinical settings.

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Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11452	081	Second Half Session	-	-	-
2018 Summer Session	11453	082	Second Half Session	-	-	-
2018 Summer Session	11454	084	Second Half Session	-	-	-
2018 Summer Session	11455	085	Second Half Session	-	-	-
2018 Summer Session	10819	075	Second Half Session	-	-	-
2018 Summer Session	10820	076	Second Half Session	-	-	-
2018 Summer Session	10821	077	Second Half Session	-	-	-
2018 Summer Session	10823	078	Second Half Session	-	-	-
2018 Summer Session	10824	079	Second Half Session	-	-	-
2018 Summer Session	10825	080	Second Half Session	-	-	-

NRSG 238. Hlth Assmnt Across Lifespan. 4 Credits. (2 Lec, 2 Lab) F,S,Su PREREQUISITES: BIOH 201 and BIOH 211. COREQUISITE: NRSG 225 or consent of instructor. This course is designed to teach the student a health oriented approach to nursing assessment of clients across the life span in a variety of community based settings. The primary focus of the course is on normal health assessment findings, with recognition of abnormal variations. This course emphasizes development of the skills needed to perform a comprehensive health assessment of children, adults, and the elderly. Data collection through comprehensive history taking and physical assessment is emphasized. Utilizations of assessment findings in clinical decision making is discussed throughout the course.

Term	CRN		Session/Dates		Location	Time
2018 Summer	11459	081	First Half	-	-	-
Session			Session			
2018 Summer	11460	082	First Half	-	-	-
Session			Session			
2018 Summer	11461	084	First Half	-	-	-
Session			Session			
2018 Summer	11462	085	First Half	-	-	-
Session			Session			
	10826	075	First Half	-	-	-
Session			Session			
2018 Summer	10827	076	First Half	-	-	-
Session			Session			
2018 Summer	10828	077	First Half	-	-	-
Session			Session			
2018 Summer	10829	078	First Half	-	-	-
Session			Session			
2018 Summer	10830	079	First Half	-	-	-
Session			Session			
2018 Summer	10831	080	First Half	-	-	-
Session			Session			

NRSG 258. Principles of Pathophysiology. 3 Credits. (3 Lec) F,S,Su 3 cr. LEC 3 PREREQUISITES: BIOH 201, BIOH 211, CHMY 121IN, and CHMY 123. This course provides an introduction to the abnormal functioning of human cells, tissues, and organ systems, and the physiological adaptations that occur. Commonly encountered age-related variations are addressed. The influences of environment, genetics, nutrition, and culture are emphasized. Current research that explains the changes that accompany a particular syndrome or disease is considered.

Term	CRN	Section	Session/Dates	Days	Location	Tim
2018 Summer Session	11463	081	Full Semester	-	-	-
2018 Summer Session	11464	084	Full Semester	-	-	-
2018 Summer Session	10832	075	Full Semester	-	-	-
2018 Summer Session	10833	078	Full Semester	-	-	-
2018 Summer Session	10919	040	Full Semester	-	-	-
2018 Summer Session	11004	001	Full Semester	-	-	-

NRSG 291. Special Topics. 1-4 Credits. (1-4 Lec; 12 cr max) On Demand PREREQUISITE: As determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11689	001	First 4 Weeks	-	-	-
Session						

NRSG 336. Nursing Pharmacotherapeutics. 3 Credits. (2 Lec, 1 Lab) F,S,Su PREREQUISITES: CHMY 121, CHMY 123, NUTR 221, NRSG 258, and NRSG 238. The focus of this course is to examine pharmacotherapeutics in nursing practice. Clinical application of pharmacological and pathophysiological principles are integrated. Physical, psychological, social and cultural factors; age related variations; and alternative therapies are highlighted.

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Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11465	081	Full Semester	-	-	-
2018 Summer Session	11466	082	Full Semester	-	-	-
2018 Summer Session	11467	084	Full Semester	-	-	-
2018 Summer Session	11468	085	Full Semester	-	-	-
2018 Summer Session	10834	075	Full Semester	-	-	-
2018 Summer Session	10835	076	Full Semester	-	-	-
2018 Summer Session	10836	077	Full Semester	-	-	-
2018 Summer Session	10837	078	Full Semester	-	-	-
2018 Summer Session	10838	079	Full Semester	-	-	-
2018 Summer	10839	080	Full Semester	-	-	-

NRSG 341. Psychosocial Nursing Concepts. 3 Credits. (2 Lec, 1 Lab) F,S,Su PREREQUISITES: PSYX 100, SOCI 101, NRSG 115, NRSG 220, NRSG 225, NRSG 258 and NRSG 238. This course explores selected psychosocial concepts and theories basic to nursing practice with clients in a variety of settings. Topics include family theory, palliative care, crisis theory, anxiety, loss, grief & other human responses; and related psychosocial nursing strategies.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11469	081	Second Half Session	-	-	-
2018 Summer Session	11470	082	Second Half Session	-	-	-
2018 Summer Session	11471	084	Second Half Session	-	-	-
2018 Summer Session	11472	085	Second Half Session	-	-	-
2018 Summer Session	10840	075	First Half Session	-	-	-
2018 Summer Session	10841	076	First Half Session	-	-	-
2018 Summer Session	10842	077	First Half Session	-	-	-
2018 Summer Session	10843	078	First Half Session	-	-	-
2018 Summer Session	10844	079	First Half Session	-	-	-
2018 Summer Session	10845	080	First Half Session	-	-	-

# NRSG 469. Cultural Applications Apps in Nursing: The (Specific Culture) Experience. 2 Credits. (1-6 Lec/Lab) F,S,Su

PREREQUISITE: Enrolled in the undergraduate nursing program. This course is designed as an intense, but time limited, immersion into another culture and is focused on health beliefs, healthcare, and nursing applications. The experience will be preceded by analysis of cultural and healthcare principles applicable to nursing, and concluded by analysis of, or participation in, healthcare delivery in another culture.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10987	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

NRSG 477. Pop Based Nursing Care in Comm. 6 Credits. (3 Lec, 3 Lab) F,S,Su PREREQUISITES: NRSG 437 and NRSG 454. The focus of this course is the health and well-being of the community. Global and national health problems are examined from a public health perspective. Community assessment and epidemiologic methods are used to identify populations at risk and potential areas for intervention.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11506	010	Full Semester	-	-	-
2018 Summer Session	11507	011	Full Semester	-	÷	-
2018 Summer Session	10846	075	First Half Session	-	-	-
2018 Summer Session	10847	076	First Half Session	-	-	-
2018 Summer Session	10848	077	First Half Session	-	-	-
2018 Summer Session	10920	078	Full Semester	-	-	-
2018 Summer Session	10921	079	Full Semester	-	-	-
2018 Summer Session	10922	080	Full Semester	-	-	-

#### NRSG 479. Population Health & Leadership. 6 Credits. (4 Lec, 2 Lab) S

The purpose of this course is to apply a population-based, epidemiological approach to discover risk factors and evidence-based health promotion and disease prevention practices. Interdisciplinary leadership and management concepts will be incorporated to guide improved outcomes for populations. College of Nursing.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11187	801	Full Semester	-	-	-
Session						

management of health care using the community based philosophy.

NRSG 487. Nursing Ldrshp/Mgmnt Dvlpmnt. 6 Credits. (3 Lec, 2 Lab) F,S PREREQUISITES: NRSG 437, NRSG 444 and NRSG 454. Senior capstone course. The focus of this course is to provide an integration of theory and skill development in leadership, management and organizational concepts for the design, coordination, and

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10849	075	Full Semester	-	-	-
2018 Summer Session	10850	076	Full Semester	-	-	-
2018 Summer Session	10851	077	Full Semester	-	-	-
2018 Summer Session	10923	078	Full Semester	-	-	-
2018 Summer Session	10924	079	Full Semester	-	-	-
2018 Summer	10925	080	Full Semester	-	-	-

NRSG 504. Assmnt and Eval of Education. 3 Credits. (3 Lec) Su, alternate years to be offered Su odd years. PREREQUISITE: Graduate Standing. Students engage in discussions around design, assessment, and evaluation of instruction by nurses. Topics include writing instructional objectives and constructing activities to assess student learning outcomes. Students complete a project to gain skills in evaluating learning related to a specific unit of study.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11473	001	First Half	-	-	-
Session			Session			

#### NRSG 594. Seminar. 1 Credit. (1 Sem; 4 cr max)

PREREQUISITE: Graduate standing or seniors by petition. Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10625	001	Full Semester	-	-	-
Session						

#### NRSG 609. Adv Practice Nrsg Ldrshp. 2 Credits. (2 Lec) Su

PREREQUISITE: NRSG 602, NRSG 603. Prepares doctor of nursing practice students for direct and indirect advanced practice nursing roles and core competencies in organizational and systems leadership. Emphasis on leadership, communication, collaboration, negotiation, team functioning, conflict resolution and scholarship.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10982	001	Full Semester	-	-	-
Section						

#### NRSG 620. Adv Pharm II. 3 Credits. (3 Lec) Su

PREREQUISITE: NRSG 602, NRSG 603. Focuses on pharmacologic effects and clinical use of selected drug classifications for the treatment and management of acute and chronic illnesses. Ethical and legal responsibilities, pharmacologic mechanisms, contraindications, complimentary alternative medicine and patient education will be addressed.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10983	001	Full Semester	-	-	-
Session						

#### NRSG 621. Advanced Clinical I-FI. 6 Credits. (3 Lec, 3 Lab) Su

PREREQUISTIE: NRSG 601, 602, 603, 604, 605 and 607. Focus on comprehensive assessment, intervention and preventive care for childbearing and childrearing families in primary health care. Includes content on physiological, pathophysiological, psychological, developmental, sociocultural and spiritual primary health care needs of childbearing and childrearing families.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10984	001	Full Semester	-	-	-
Session						

# NRSG 623. Advanced Clinical III Primary Care for Aging Families. 6 Credits. (3 Lec. 3 Lab) Su

PREREQUISITES: NRSG 622. Focus on assessment, treatment and preventative care for aging families in primary health care settings. Physiological, pathophysiological, psychological, developmental, sociocultural and spiritual responses to acute and chronic conditions will be explored emphasizing the importance of advocacy.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10933	001	Full Semester	-	-	-
Session						

#### NRSG 630. Adv Psychopharm II. 3 Credits. (2 Lec) Su

PREREQUISITE: NRSG 602, NRSG 603. Advanced concepts in the clinical management of psychiatric symptoms. Analyze psychotropic interventions, mechanisms of action and indications of use, dosing, side effects, drug-drug interactions, contraindications, and patient education. Psychotropic agents and complimentary alternative medicine.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10985	001	Full Semester	-	-	-
Section						

# NRSG 631. Advanced Clinical I – Psych/Mental Health. 6 Credits. (3 Lec, 3 Lab) Su

PREREQUISITE: NRSG 601, 602, 603, 604, 605, 607. The role and scope of advanced psychiatric nursing practice and foundational legal and ethical issues are explored. The neuroanatomy and neurophysiology of psychiatric disorders are reviewed. Conduct comprehensive and systematic psychiatric assessments in complex situations.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10986	001	Full Semester	-	-	-
Session						

# NRSG 633. Advanced Clinical III, Psych/Mental Health. 6 Credits. (3 Lec, 3 Lab) $S_{11}$

PREREQUISITES: NRSG 632 In this course, students will explore the conceptual and theoretical foundations for providing psychotherapy with families and couples. Continuation of psychopharmacology concepts presented in Advanced Clinical I and II will be provided with an emphasis on expanded pharmacology concepts.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10947	001	Full Semester	-	-	-
c ·						

NRSG 675. Professional Paper and Project. 1-6 Credits. (1-6 Ind; 6 cr max) F,S,Su PREREQUISITE: NRSG 602, NRSG 603, NRSG 604, NRSG 674. Professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11531	004	Full Semester	-	-	-
2018 Summer Session	11532	005	Full Semester	-	-	-
2018 Summer Session	11533	006	Full Semester	-	-	-
2018 Summer Session	11534	007	Full Semester	-	-	-
2018 Summer Session	11535	008	Full Semester	-	-	-
2018 Summer Session	11536	009	Full Semester	-	-	-
2018 Summer Session	11537	010	Full Semester	-	-	-
2018 Summer Session	11538	011	Full Semester	-	-	-
2018 Summer Session	11539	012	Full Semester	-	-	-
2018 Summer Session	11540	013	Full Semester	-	-	-
2018 Summer Session	11541	014	Full Semester	-	-	-
2018 Summer Session	11542	015	Full Semester	-	-	-
2018 Summer Session	11543	016	Full Semester	-	-	-
2018 Summer Session	11544	017	Full Semester	-	-	-
2018 Summer Session	11545	018	Full Semester	-	-	-
2018 Summer Session	11546	019	Full Semester	-	-	-
2018 Summer Session	11547	020	Full Semester	-	-	-
2018 Summer Session	11548	021	Full Semester	-	-	-
2018 Summer Session	11549	022	Full Semester	-	-	-
2018 Summer Session	11550	023	Full Semester	-	-	-
2018 Summer Session	11006	001	Full Semester	-	-	-
2018 Summer Session	11197	002	Full Semester	-	-	-
2018 Summer Session	11198	003	Full Semester	-	-	-

## **NUTR** - Nutrition

## NUTR 221CS. Basic Human Nutrition. 3 Credits. (3 Lec) F,S,Su

Basic concepts of human nutrition which include carbohydrates, lipids, proteins, vitamins, minerals, absorption, digestion, metabolism, and energy utilization as they relate to health and food consumption at different stages of the life cycle.

Term	CRN	Section	Session/Dates	Days	Location	Tim
2018 Summer Session	10676	802	Full Semester	-	-	-
2018 Summer Session	10677	803	Full Semester	-	-	-

#### NUTR 351. Nutrition and Society. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: NUTR 221CS. Social and cultural, economic, policy, and environmental factors in the community influencing nutritional status, and public health, techniques to assess community nutritional needs, and methodology for designing, implementing, and evaluating community nutrition programs, practices, and policies. Major service-learning project completed for a public or private agency.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11132	801	Full Semester	-	-	-
Session						

# PHL - Philosophy

#### PHL 101IH. Intro Phil:Reason and Reality. 3 Credits. (3 Lec) F,S

Exploration of the nature of reality and human knowledge. A critical look at the presuppositions of our common sense world view.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11627	802	Second Half Session	-	-	-
2018 Summer	11103	801	First Half	-	-	-
Session			Session			

#### PHL 103D. Philosophy and Popular Culture. 3 Credits. (2 Lec) S

alternate odd years Introduces philosophy to students through popular culture. Basic philosophical concepts, methods, and theories will be learned through discussion of technology, video games, films, television, therapy, sports, race, gender, alternative sexuality and drug use.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11107	801	First Half	-	-	-
Session			Session			

#### PHL 110IH. Intro Ethics:Good and Evil. 3 Credits. (3 Lec) F,S,Su

An examination of traditional and contemporary conceptions of good and evil.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11105	801	Second Half Session	-	-	-
2018 Summer Session	11106	802	First Half Session	-	-	-

#### PHL 278CS. Origins of Life. 3 Credits. (3 Lec) ${\sf F}$

Examination of philosophical theories regarding the nature of life and the methods for scientific discovery of its origin. What are the defining characteristics of life? How would we look for life on other planets? Is artificial life possible?.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11628	801	First Half	-	-	-
Session			Session			

#### PHL 322. Philosophy & Environmentl Ethics. 3 Credits. (3 Lec)

PREREQUISITE: Previous course in Philosophy or consent of instructor. This course reviews the major readings, both classical and contemporary, on environmental ethics, and isolates the major issues. It provides the appropriate theoretical background. It applies these readings and this background to the investigation and resolution of several environmental policy questions.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11108	801	Second Half	-	-	-
Session			Session			

#### PHL 327. Aesthetics and the Arts. 3 Credits. (3 Lec)

PREREQUISITE: Previous course in Philosophy or consent of instructor. Philosophical examination of the nature and function of the arts and the aesthetic experience.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10868	801	Second Half	-	-	-
Session			Session			

# **PHOT - Photography**

PHOT 113RA. Understanding Photography. 3 Credits. (2 Lec, 1 Lab) F,S,Su An introduction to traditional black and white photographic practice, theory and visual principles, including camera operation, use of B&W darkroom technique. Photography majors must take this class fall semester to fit into the sequential nature of the Photography program. A 35mm film camera is required for this class. School of Film and Photography.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11624	001	Second 4	MTWR	VCB148	11:00am - 1:35pm
Session			Weeks			

## PHOT 154IA. Exploring Digital Photography. 3 Credits. (1 Lec) F,S,Su

(non-majors only) Introduces technical and aesthetic ways of creating digital photographic images. Emphasis is on the production of photographic images, from acquiring them with digital cameras to manipulating them using computer software for manipulating digital images. Instructor and peer critique of student work is an integral part of the course.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11625	801	First Half	-	-	-
Session			Session			

#### PHOT 395. Practicum. 1-3 Credits. (1-3 Ind; 12 cr max) F,S,Su

Max 12 cr. total for both PHOT 395 & FILM 395 combined. PREREQUISITE: PHOT 255 and PHOT 258. Practical experience associated with research projects in photography.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10880	001	Full Semester	-	-	-
Consinu						

#### PHOT 494. Seminar/Workshop. 1-4 Credits. (1-4 Sem; 12 cr max)

PREREQUISITE: PHOT 255 and PHOT 258 or consent of instructor. Topics offered at the upper division level that are not covered in regular courses. Students participate in preparing and presenting discussion material.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10879	001	First 4 Weeks	MTWR	VCB148	11:00am - 1:35pm
Session						

## **PHSX - Physics**

#### PHSX 205. College Physics I. 4 Credits. (3 Lec, 1 Lab) F,S,Su

PREREQUISITE: High school trigonometry or M 151Q. First semester of sequence. Topics include kinematics and dynamics of linear and rotational motion; work and energy; impulse and momentum; and fluids. Students will not receive credit if they have passed PHSX 220 or PHSX 240. Common exams.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10347	001	First 4 Weeks	MTWR	BARNAH103	9:00am - 9:50am
2018 Summer Session	10347	001	First 4 Weeks	MTWR	BARNAH103	11:00am - 11:50am
2018 Summer Session	10347	001	First 4 Weeks	MTWR	BARNAH103	1:10pm - 2:00pm
2018 Summer Session	10348	002	First 4 Weeks	MTWR	AJM137	2:10pm - 4:00pm
2018 Summer Session	10349	003	First 4 Weeks	MTWR	AJM137	4:10pm - 6:00pm
2018 Summer Session	10537	004	First 4 Weeks	MTWR	AJM137	6:10pm - 8:00pm

## PHSX 207. College Physics II. 4 Credits. (3 Lec, 1 Lab) F,S,Su

PREREQUISITE: PHSX 205 or PHSX 220. Second semester of sequence. Topics include simple harmonic motion; electric forces and fields; dc electric circuits; magnetic forces and fields; and magnetic induction and motors. Students will not receive credit if they have passed PHSX 222 or PHSX 242. Common exams.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11582	004	Second 4 Weeks	-	-	-
2018 Summer Session	10350	001	Second 4 Weeks	MTWR	BARNAH103	12:00pm - 12:50pm
2018 Summer Session	10350	001	Second 4 Weeks	MTWR	BARNAH103	2:00pm - 2:50pm
2018 Summer Session	10350	001	Second 4 Weeks	MTWR	BARNAH103	4:00pm - 4:50pm
2018 Summer Session	10351	002	Second 4 Weeks	MTWR	AJM137	6:10pm - 8:00pm
2018 Summer Session	10558	003	Second 4 Weeks	MTWR	AJM138	6:10pm - 8:00pm

#### PHSX 220. Physics I (w/ calculus). 4 Credits. (3 Lec, 1 Lab) F,S,Su

COREQUISITE: M 171Q or M 181Q First semester of a three-semester sequence primarily for engineering and physical science students. Covers topics in mechanics (such as motion, Newton's laws, conservation laws, work, energy, systems of particles, and rotational motion) and in mechanical waves (such as oscillations, wave motion, sound, and superposition). Common exams.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11032	001	First 4 Weeks	MTWR	BARNAH108	8:30am - 10:00am
2018 Summer Session	11032	001	First 4 Weeks	MTWR	BARNAH108	3:00pm - 4:30pm
2018 Summer Session	11033	002	First 4 Weeks	MTWR	AJM138	10:10am - 12:00pm
2018 Summer Session	11034	003	First 4 Weeks	MTWR	AJM138	12:10pm - 2:00pm
2018 Summer Session	11580	004	First 4 Weeks	MTWR	AJM138	6:10pm - 8:00pm

#### PHSX 222. Physics II (w/ calculus). 4 Credits. (3 Lec, 1 Lab) F,S,Su

PREREQUISITE: PHSX 220 or PHSX 240; M 171Q or M 181Q. COREQUISITE: M 172Q or M 182Q. Covers topics in electricity and magnetism (such as Coulomb's law, Gauss' law, electric fields, electric potential, dc circuits, magnetic fields, Faraday's law, ac circuits, and Maxwell's equations) and optics (such as light, geometrical optics, and physical optics). Common exams.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11581	004	Second 4 Weeks	MTWR	AJM146	6:10pm - 8:00pm
2018 Summer Session	11035	001	Second 4 Weeks	MTWR	BARNAH108	8:30am - 10:00am
2018 Summer Session	11035	001	Second 4 Weeks	MTWR	BARNAH108	3:00pm - 4:30pm
2018 Summer Session	11036	002	Second 4 Weeks	MTWR	AJM146	10:10am - 12:00pm
2018 Summer Session	11037	003	Second 4 Weeks	MTWR	AJM146	12:10pm - 2:00pm

#### PHSX 224. Physics III. 4 Credits. (3 Lec, 1 Lab) F,Su

PREREQUISITE: PHSX 222 or PHSX 242; M 172Q or M 182Q. Covers topics in thermodynamics (such as temperature, heat, laws of thermodynamics, and the kinetic theory of gases) and modern physics (such as relativity; models of the atom; quantum mechanics; and atomic, molecular, solid state, nuclear, and particle physics).

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11492	003	Third 4 Weeks	MTWR	AJM137	12:10pm - 2:00pm
2018 Summer Session	11038	001	Third 4 Weeks	MTWR	BARNAH103	8:30am - 10:00am
2018 Summer Session	11038	001	Third 4 Weeks	MTWR	BARNAH103	3:00pm - 4:30pm
2018 Summer Session	11039	002	Third 4 Weeks	MTWR	AJM137	10:10am - 12:00pm

#### PHSX 401. Physics by Inquiry I. 3 Credits. (3 Lab) Su

PREREQUISITE: Teacher Certification. An in-depth and hands-on exploration of basic physics principles. Scientific model building and proportional reasoning skills will be developed in the context of dc electrics, one and two dimensional kinematics, and dynamics. For middle school and high school science teachers.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11219	001	Non-standard term dates 09-	-	-	-
			JUL-18 20-			
			JUL-18			

#### PHSX 403. Physics by Inquiry III. 3 Credits. (3 Lab) Su

PREREQUISITE: Science Teacher Certification. COREQUISITE: PHSX 401. PHSX 403 is a continuation of the PHSX 401 experience, but it may also be taken concurrently with PHSX 401. The course will begin with a careful investigation of geometrical optics, leading to an understanding of pinhole cameras, lenses, and prisms. This will be followed by an exploration of magnetic interactions and magnetic materials.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11005	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

# PHSX 491. Special Topics. 1-4 Credits. (1-4 Lec; 12 cr max) On Demand Max 12 cr. PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need

Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10345	801	Intersession	-	-	-
Session						

#### PHSX 511. Astronomy for Teachers. 3 Credits. (3 Rct) F,S,Su

PREREQUISITE: Graduate standing: Currently certified middle and high school teachers with one year of teaching experience. This is an online, distance education course primarily intended for science educators. Topics include: the laws of gravity and orbital dynamics, a survey of the solar system, stars and stellar evolution, galaxies, and Big Bang cosmology.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11014	801	Non-standard	-	-	-
Session			term dates 29-			
			MAY-18 03-			
			AUG-18			
2018 Summer	11249	850	Full Semester	-	-	-

# PHSX 513. Quantum Mechanics Online. 3 Credits. (3 Lec) Su alternate years, to be offered even years

PREREQUÍSITE: Graduate standing; Currently certified high school teachers with one year of teaching experience; an introductory physics course; and a working knowledge of elementary differential and integral calculus. This online course addresses the key ideas behind quantum mechanical observations and devices, including the fundamental behavior of electrons and photons. Designed for practicing high school physics teachers. Assignments and discussions use electronic computer conferencing and simulation software.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10317	801	Full Semester	-	-	-
Section						

PHSX 591. Special Topics. 1-4 Credits. (1 Lec; 12 cr max) On Demand Max 12 cr. PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11013	802	Full Semester	-	-	-
2018 Summer Session	11143	801	Intersession	-	-	-
2018 Summer Session	11147	803	First Half Session	-	-	-
2018 Summer Session	10636	003	Non-standard term dates 14- MAY-18 03- AUG-18	-	-	-
2018 Summer Session	11383	804	Second Half Session	-	-	-

#### **PSCI - Political Science**

#### PSCI 210IS. Introduction to American Government. 3 Credits. (3 Lec)

Examines the major institutions of national government and politics. Special emphasis on the constitution and other political rules of the game as shapers of public consciousness and government policy.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10747	801	First Half Session	-	-	-
2018 Summer Session	10990	802	First Half Session	-	-	-

#### PSCI 439. International Human Rights. 3 Credits. (3 Lec) F

Alternate Even Years PREREQUISITE: PSCI 201, PSCI 210IS, PSCI 230D, PSCI 240, PSCI 250, or consent of department. The development of human rights in legal and political context of the post-World War II period. Civil and political rights of due process; political participation and fundamental democratic freedoms; as well as social, cultural, and economic rights including basic human needs, self-determination, gender equality, and cultural integrity. National and International implementation is also considered.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10587	801	Second Half	-	-	-
Session			Session			

#### PSCI 451. State and Local Government Policy Making. 3 Credits. (3 Lec) Su An examination of the institutions, actors, and issues relevant to state and local

An examination of the institutions, actors, and issues relevant to state and local governments in the United States, with a particular emphasis on Montana.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11502	801	Second Half	-	-	-
Session			Session			

#### PSCI 454. Cinema and Political Theory. 3 Credits. (3 Lec) Su

PREREQUISITE: PSCI 201, PSCI 210IS, PSCI 230D, PSCI 240, PSCI 250, or consent of department. Explores the intersection of political theory with topics such as civil society, bureaucracy and public policy through the use of film. Special attention given to both descriptive and prescriptive applications of modern and contemporary political theory to these topics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10586	001	First 4 Weeks	MTWR	WIL1132	8:00am - 10:35am
Session						

**PSCI 491. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand 1 - 4 cr. Maximum 12 cr. PREREQUISITE: Consent of instructor. Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11448	002	Second Half Session	-	÷	-
2018 Summer Session	11376	801	Second Half Session	-	-	-

#### PSCI 530. Tools of Public Administration. 3 Credits. (3 Lec) Su

PREREQUISITES: Graduate Standing. This course encompasses two content areas needed for public managers: tools for human resource management and decisions and public budgeting. Topics regarding human resources include historical development of public personnel, position classification, recruitment, selection, equal opportunity, affirmative action, collective bargaining and flexible employment relationships under more limited and decentralized government. Topics regarding public budgeting include the politics of the budgeting process, budgeting forms and processes at the federal, state and local levels, and revenue projection and expenditure decisions. 201870.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11380	801	First Half	-	-	-
Session			Session			

# **PSPP - Plant Sciences/Plant Pathology**

**PSPP 548. Flower Plnts of North Rock Mtn. 2 Credits.** (2 Lec) Su odd years A field oriented study of the flowering plants of Montana with an emphasis on plant keying skills. Objectives are: 1) to identify the parts of flowering plants and become familiar with botanical terms; 2) to learn morphological characteristics of common plant families; 3) to learn how to use a plant key to successfully identify flowering plants; application of these skills and botanical texts to the classroom. Mon - Tues are class/lecture days; Wed - Fri are day field trips to local trail heads.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11221	001	Non-standard	-	-	-
Session			term dates 18-			
			JUN-18 22-			
			JUN-18			

**PSPP 591. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11222	001	Non-standard	-	-	-
Session			term dates 14-			
			MAY-18 03-			
			AUG-18			

# **PSYX** - Psychology

PSYX 100IS. Intro to Psychology. 4 Credits. (3 Lec, 1 Lab) F,S,Su

Introduction to methods and approaches to psychology including exploration of problems in physiological psychology, learning, memory and information processing, abnormal behavior, and social psychology, with selected individual study of other areas related to the student's interests.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10380	001	Second 4 Weeks	MTWR	TRAP100	12:00pm - 2:30pm
2018 Summer Session	10381	002	Second 4 Weeks	MTWR	TRAP100	2:45pm - 5:45pm

**PSYX 223.** Research Design and Analysis I. 4 Credits. (3 Lec, 1 Lab) F,S,Su PREREQUISITE: PSYX 100IS and either M 105Q (formerly M 145Q) or STAT 216Q. For Psychology majors and minors only. Prerequisites are strictly enforced. Introduction to the design and analysis of psychological research. Topics include logic and philosophy of psychological research, conceptualizing research questions, hypothesis testing, data collection and analysis strategies used by researchers in psychology, and introduction to using statistical software for data analysis.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11600	001	First 4 Weeks	MTWR	TRAP100	8:00am - 10:35am
2018 Summer Session	11601	002	First 4 Weeks	MTWR	REID305	10:45am - 1:45pm

#### PSYX 225. Research Design and Analysis II. 3 Credits. (3 Lec) F,S

PREREQUISITE: PSYX 223. For Psychology majors and minors only. Continuation of PSYX 223. Topics include experimental, quasi-experimental, and non-experimental designs and methodological issues; assessing research questions; reliability and validity of psychological measures; ethics of psychological research; writing research reports; using statistical software for data analysis.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10993	001	First 4 Weeks	MTWR	TRAP308	8:00am - 10:35am
Session						

#### PSYX 230. Developmental Psychology. 3 Credits. (3 Lec) F

PREREQUISITE: PSYX 100IS. Human development across the lifespan using major theories of development including psychoanalytic, psychosocial, learning, and cognitive. Physical, cognitive, social, emotional, and personality development are explored from conception to death.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11419	001	First 4 Weeks	MTWR	TRAP308	11:00am - 1:35pm
Session						

#### PSYX 235D. Contemp Issues in Human Sexual. 3 Credits. (3 Lec) S

PREREQUISITE: PSYX 100IS. Issues of diversity and difference in human sexuality will be examined. The development and expression of sexual behavior as a complex sociocultural, biological, psychological, and historic phenomenon will be discussed. Course will examine sexual behavior and identity in both the majority culture and other cultures in the U.S. and world.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11603	001	Third 4 Weeks	MTWR	TRAP308	2:00pm - 4:35pm
Session						

#### PSYX 263CS. The Psychology of Film. 3 Credits. (3 Lec) Su

PREREQUISITE: College Writing (W) and University Seminar (US) CORE. Uses psychological science to understand the persuasive power of media as portrayed in popular films. Evaluates the media's ability to both reflect and affect behavior. Focus is on contemporary themes such as aggression, drug use, sexuality, and prejudice.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10591	001	First 4 Weeks	MTWR	WIL1117	8:00am - 10:35am
Session						

#### PSYX 291. Special Topics. 1-4 Credits. (1 Lec; 12 cr max) On Demand

Max 12 cr. PREREQUISITE: None required but some may be determined necessary by each offering department. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11681	802	First Half	-	-	-
Session			Session			

### PSYX 333. Psychology of Aging. 3 Credits. (3 Lec) $\boldsymbol{S}$

PREREQUISITE: PSYX 100IS and junior standing or consent of instructor. Surveys different domains in which human behavior is influenced by aging. Topics include the influence of age on cognitive processes (e.g., attention and memory), social processes (e.g., personality and wellbeing), and biological processes (e.g., brain-related changes).

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11366	001	Second 4	MTWR	TRAP308	8:00am - 10:35am
Session			Weeks			

#### PSYX 354. Sensation & Perception. 3 Credits. (3 Lec) F

PREREQUISITE: PSYX 350. Basic principles of sensory systems (with emphasis on the visual system), contemporary psychophysical procedures, and principles of perception.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11604	001	Third 4 Weeks	MTWR	TRAP308	11:00am - 1:35pm
c ·						

#### $\textbf{PSYX 375. Behavior Modification. 3 Credits.} \ (3 \ Lec) \ F$

PREREQUISITE: PSYX 100IS and PSYX 270 or PSYX 370. Human behavior change with emphasis on practical techniques for changing individual and group behavior in real-life situations.

Term	CRN	Section	Session/Dates	Days	Location	Time				
2018 Summer	10731	801	First Half	-	-	-				
Session			Session							
2018 Summer	10994	802	Second Half	-	-	-				
Session			Session							

#### PSYX 380. Memory & Cognition. 3 Credits. (3 Lec)

PREREQUISITE: PSYX 100IS, Junior standing, or consent of instructor. Theories and evidence concerning human information processing, focusing especially on attention and memory, problem solving, decision making, reasoning, and related topics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11180	801	First Half	-	-	-
Session			Session			

PSYX 400. History & System in Psychology. 3 Credits. (3 Lec) On Demand PREREQUISITE: PSYX 100IS. Examination of the historical development of major concepts, theoretical ideas, and approaches to psychology, with emphasis on perspectives of broad current interest such as behavioral science, cognitive science, and presentations.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11602	001	Second 4	MTWR	TRAP308	11:00am - 1:35pm
Session			Weeks			

#### PSYX 462. Psychology of Prejudice. 3 Credits. (3 Lec) S

PREREQUISITE: PSYX 100IS or consent of instructor. Reviews theory and research on prejudice. Topics include stereotyping and discrimination, cognitive and affective dynamics of prejudice, causes of prejudice, eliminating prejudice, affirmative action and diversity programs, and psychological effects of prejudice.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10585	801	First Half	-	-	-
Session			Session			

**PSYX 481. Judgment & Decision Making. 3 Credits.** (3 Lec) On Demand PREREQUISITE: PSYX 1001S, Quantitative (Q) CORE, and Junior standing. Theories and evidence on the psychology of judgment and decision making, including rationality, normative rules for choice, irrationality of some human judgments, and group decision making. Applications of decision theory at the personal, organizational, and societal levels are reviewed.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11605	801	First Half	-	-	-
Session			Session			

#### PSYX 491. Special Topics. 1-4 Credits. (1 Lec; 12 cr max) On Demand

Max 12 cr. PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11676	001	Third 4 Weeks	MTWR	TRAP308	8:00am - 10:35am
Session						

#### PSYX 494. Seminar. 3 Credits. (3 Sem) On Demand

PREREQUISITE: PSYX 225 or consent of instructor. Topics in current Psychological Science offered at the upper division level that are not covered by cataloged courses. Topics vary each semester. Students participate in preparing and presenting discussion material based on primary journal articles.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10995	801	First Half	-	-	-
Session			Session			

**PSYX 495. Field Pract in Applied Psy. 3-12 Credits.** (3 Ind; 12 cr max) F,S,Su PREREQUISITE: PSYX 225 or Consent of Instructor. Field Practicum gives psychology majors direct experience in applied settings relevant to psychology.

psychology majors direct experience in applied settings relevant to psychology. Students arrange an internship and submit progress reports summarizing their field experience while relating it to psychological principles and readings. Graded A – F.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10434	801	Full Semester	-	-	-
Session						

#### PSYX 499R. Senior Thesis/Capstone. 3 Credits. (3 Sem) F,S

PREREQUISITE: PSYX 490R or PSYX 495 (minimum 3 cr.). Senior capstone course. Written and oral presentation of senior thesis work.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10568	001	First 4 Weeks	-	-	-
Session						

# **RLST - Religious Studies**

#### RLST 100D. Intro to the Study of Religion. 3 Credits. (3 Lec)

-- The great themes of the world's religions and the methodological approaches to the academic study of religion and culture.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11097	801	Second Half	-	-	-
Session			Session			

#### RLST 203D. Buddhist Traditions. 3 Credits. (3 Lec)

-- The sacred texts and images of the religious thought and practices in the traditions of China, Korea, India, Southeast Asia, and/or Japan.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11099	801	First Half	-	-	-
Session			Session			

# SFBS - Sustainable Food & Bioenergy

#### SFBS 296. Practicum: Towne's Harvest. 3 Credits. (1 Lec, 2 Lab)

PREREQUISITE: SFBS 146 or permission of instructor. Emphasizes hands-on field experience with small-scale market gardening, distribution through community-supported agriculture, and market sales at local farmers' markets. Students will complete one independent project, service-learning at local farms and complete weekly writing assignments.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10717	002	Full Semester	TR	HORTFARM	f 8:00am - 12:00pm
2018 Summer Session	10717	002	Full Semester	F	HORTFARM	I 12:00pm - 3:00pm
2018 Summer Session	10641	001	Full Semester	MW	HORTFARM	f 8:00am - 12:00pm
2018 Summer Session	10641	001	Full Semester	F	HORTFARM	I 12:00pm - 3:00pm

# SFBS 346. Sustainable Food and Bioenergy Systems Summer Field Course. 2 Credits. (1 Lec, 1 Ind) Su

PREREQUISTES: SFBS 296 or consent of instructor. This field trip course compares and contrasts large-scale agricultural operations across Montana. Students will gain an appreciation of the choices, opportunities, and challenges facing conventional, diversified, and organic producers. Interdisciplinary and systems level thinking will be practiced.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10978	001	Non-standard	-	-	-
Session			term dates 25-			
			JUN-18 20-			
			IUL-18			

SFBS 445R. Culinary Marketing: Farm/Table. 3 Credits. (1 Lec, 2 Lab) Su PREREQUISITE: HDFS 371, NUTR 221CS, NUTR 226, NUTR 227, and NUTR 322 or permission of instructor. Emphasizes hands-on food experience, including market garden tending and harvesting, distribution by community supported agriculture, food marketing and retail at farmers' markets, culinary practice with seasonal garden produce and food preservation, educational outreach and culinary demonstrations, and independent research projects.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10597	001	Second Half	W	HH120	9:00am - 2:00pm
Session			Session			
2018 Summer	10597	001	Second Half	T	HH117	12:00pm - 3:00pm
Session			Session			

SFBS 541. Culinary Marketing: Farm to Table. 3 Credits. (1 Lec, 2 Lab) Su PREREQUISITE: NUTR 226, NUTR 227, NUTR 322, NUTR 395 or equivalent and graduate standing. Emphasizes hands-on food experience, including market garden tending and harvesting, distribution by community supported agriculture, food marketing and retail at farmers' markets, culinary practice with seasonal garden produce, food preservation and product development, teaching and culinary demonstrations, and marketing plan development.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10728	001	Second Half Session	W	HH120	9:00am - 2:00pm
2018 Summer Session	10728	001	Second Half Session	T	HH117	12:00pm - 3:00pm

# **SOCI - Sociology**

#### SOCI 101IS. Introduction to Sociology. 3 Credits. (3 Lec) F,S,Su

Theoretical and methodological underpinnings of sociology. How theory guides investigation of social life and results in creation of factual knowledge. How sociological questions are studied and results are interpreted.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10942	804	Second Half Session	-	-	-
2018 Summer Session	10943	802	First Half Session	-	-	-
2018 Summer Session	10404	801	Second Half Session	-	-	-

#### SOCI 150D. Social Difference. 3 Credits. (3 Lec) On Demand.

Examination of social differences by focusing on the construction and consequences of a limited set ascribed social characteristics: race, ethnicity, gender, sexual orientation and class. Focus on how these ascribed statuses are central to the sociological study of inequality.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11121	801	First Half	-	-	-
Session			Session			

#### SOCI 221IS. Criminal Justice System. 3 Credits. (3 Lec) F,S

Su This course is an overview of the institutions that comprise our justice system. The emphasis is on criminal justice and the sources of crime but topics relevant to the broader study of the law and justice included.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10944	801	Second Half	-	-	-
Session			Session			

#### SOCI 318R. Sociological Research Methods. 3 Credits. (3 Lec) F,S

PREREQUISITE: SOCI 101IS and STAT 216Q or SOCI 202. Introduction to research methods in sociology with emphasis given to defining variables, hypothesis formation, and development of strategies used to test hypotheses. Student research project. For Sociology majors. Non-majors allowed with consent.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10911	801	First Half	-	-	-
Session			Session			

#### SOCI 325. Social Stratification. 3 Credits. (3 Lec) On Demand

PREREQUISITE: SOCI 101IS. The study of socio-economic inequality and its intersection with racial and gender inequality. Class and class structure in America. Changes in economic inequality. Social policy and economic inequality.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11122	801	First Half	-	-	-
Session			Session			

### SOCI 326. Sociology of Gender. 3 Credits. (3 Lec) On Demand

PREREQUISITE: SOCI 101IS. Examines the social and biological bases of gender; how gender is constructed through socialization, social interaction and institutional processes, and the social, cultural and economic consequences of gender differences for men and women.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10945	801	First Half	-	-	-
Session			Session			

### SOCI 448. Society and Sport. 3 Credits. (3 Lec) S

PREREQUISITE: SOCI 1011S. Employs sociology as a means to understand and analyze social issues related to sports. Addresses both the positive and negative features of sport in society today, examines the current popularity of sports, the benefits they provide, and the problems they may pose. Discusses how participation in sports can teach cultural values, encourage socially appropriate behavior, and foster community spirit and looks at how particular social problems such as economic inequality, sexism, and racism.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Sumn	ner 11670	801	Second Half	-	-	-
Session			Session			

#### SOCI 494. Seminar. 1-3 Credits. (1-3 Sem; 9 cr max) On Demand

PREREQUISITE: As determined for each offering. Max 12 cr. Topics offered at the upper division level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11634	801	Second Half	-	-	-
Session			Session			

# **SPNS - Spanish**

#### SPNS 101. Elementary Spanish I. 3 Credits. (3 Lec)

PREREQUISITES: Consent of department. Placement required. An elementary level course designed to help students acquire basic proficiency in communicating within culturally significant contexts. An integrated approach to teaching language skills with emphasis on vocabulary acquisition and basic grammatical structures.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10570	001	First 4 Weeks	MTWR	GH110	11:00am - 1:35pm
Cossion						

#### SPNS 102D. Elementary Spanish II. 3 Credits. (3 Lec)

PREREQUISITE: SPNS 101 or equivalent as determined by placement exam. This course builds upon the foundation established in 101. Emphasis is placed upon oral and written expression. Reading and discussions are designed to increase comprehension of more linguistically complex texts and more conceptually complex cultural issues.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11592	001	Second 4	MTWR	GH110	11:00am - 1:35pm
Session			Weeks			

#### SPNS 193. Study Abroad: 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11311	001	Full Semester	-	-	-
Session						

#### SPNS 250. Spanish for Healthcare Professionals. 3 Credits. (3 Lec)

PREREQUISITE: SPNS 101 or equivalent. Prepares undergraduates to converse with Spanish-speaking patients and develop cultural competency. Emphasis on conversation/grammar necessary during medical interviews, cultural aspects of Latino health care, interviewing in Spanish. Includes guest speakers, real-world situations, and discussion of current issues.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11593	801	First 4 Weeks	-	-	-
Session						

#### SPNS 293. Study Abroad:. 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11312	001	Full Semester	-	-	-
C!						

#### SPNS 335IH. Travel in Latin Am Lit & Film. 3 Credits. (3 Lec)

PREREQUISITE: SPNS 202D or Junior standing. The course examines travel in Latin America texts and films as exploration and search for individual and national identity and as disruptive displacements caused by political and economic forces and the problems of adapting to a new environment. In English.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10461	801	First 4 Weeks	-	-	-
Cossion						

## SPNS 393. Study Abroad:. 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11561	099	Full Semester	-	-	-
2018 Summer Session	11313	001	Full Semester	-	-	-

#### SPNS 493. Study Abroad:. 12 Credits.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11314	001	Full Semester	-	-	-
Session						

# **SRVY - Surveying**

**SRVY 230. Intro to Surveying for Engineers. 3 Credits.** (2 Lec, 1 Lab) F,S,Su PREREQUISITE: M 165Q or M 171Q or M 181Q. Surveying field practice, error propagation analysis, survey for project design.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10315	001	First 4 Weeks	MTWR	COBH429	8:00am - 9:40am
2018 Summer Session	10316	002	First 4 Weeks	MTW	COBH429	11:00am - 12:05pm
2018 Summer Session	10316	002	First 4 Weeks	MTW	COBH429	12:15pm - 2:15pm

## **STAT - Statistics**

#### STAT 216Q. Introduction to Statistics. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: Level 3 Math Placement Test within the past 12 months, B or better in M 096/097 or a C- or better in any 100 level or above M course. Traditional and resistant estimators of location and spread, fundamentals of inference using randomization and classical methods, confidence intervals, and tests of hypotheses. This course is taught in the TEAL format. COMMON EXAMS.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10716	805	Second Half Session	-	-	-
2018 Summer Session	10365	001	First 4 Weeks	MTWR	CHVR212	11:00am - 1:35pm
2018 Summer Session	10366	002	Second 4 Weeks	MTWR	CHVR212	11:00am - 1:35pm
2018 Summer Session	10367	801	Non-standard term dates 14- MAY-18 06- JUL-18	-	-	-
2018 Summer Session	10444	003	Third 4 Weeks	MTWR	CHVR212	11:00am - 1:35pm
2018 Summer Session	10445	802	Non-standard term dates 14- MAY-18 06- JUL-18	-	-	-
2018 Summer Session	10517	803	Non-standard term dates 14- MAY-18 06- JUL-18	-	-	-
2018 Summer Session	10525	004	Second Half Session	-	-	-
2018 Summer Session	10546	005	Second Half Session	-	-	-
2018 Summer Session	10638	804	Intersession	-	-	-

#### STAT 217Q. Intermediate Statistical Concepts. 3 Credits. (3 Lec) F,S,Su

PREREQUISITE: C- or better in STAT 216Q. One- and two-sample tests and associated confidence intervals for means and proportions; analysis of variance; F-tests, correlation, regression, contingency tables. Statistical analysis using the computer. COMMON FINAL ONLY.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10566	001	First 4 Weeks	MTWR	WIL1130	11:00am - 1:35pm
2018 Summer Session	10567	002	Second 4 Weeks	MTWR	WIL1131	11:00am - 1:35pm

#### STAT 332. Statistics for Scientists and Engineers. 3 Credits. (3 Lec) F,S

PREREQUISITE: M 172Q. Methods of estimation, data collection, analysis and display of quantitative information, continuous and discrete random variables, families of probability distributions, hypothesis testing, regression, ANOVA.

Term	CRN	Section	Session/Dates	Days	Location	Tim
2018 Summer	11124	001	Second Half	-	-	-
Session			Session			

STAT 425. Biostatistical Data Analysis. 3 Credits. (3 Lec) F alternate years starting S 2015 then to be offered F even years. PREREQUISITE: STAT 411 Statistical methodology applicable to vital statistics, life tables and survival curves, clinical trials, epidemiologic investigations, and cause-effect studies. Co-convened with STAT 525.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11683	001	Full Semester	-	-	-
Session						

**STAT 576. Internship. 2-12 Credits.** (2-12 I; max cr unlimited) F,S,Su PREREQUISITE: Graduate standing, consent of instructor and approval of department head. An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10364	001	Full Semester	-	-	-

# **TE - Technology Education**

TE 250CS. Technology and Society. 3 Credits. (1 Lec, 2 Lab) F,S,Su

Closely linked to the various sciences, technology has developed out of human need to solve real problems of society and to advance science. An exploration and examination of major technological periods, inventions, and innovations that have altered the course of humanity and their impact on the civilization process will lead to a perspective on technological literacy. This course will introduce students to the study of technology, not so much as a method for "doing technology," but as an impetus for social and cultural change related to technology.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10646	802	First 4 Weeks	-	-	-
Cossion						

#### TE 594. Seminar. 1 Credit. (1 Sem; 4 cr max) On Demand

Max 4 cr. PREREQUISITE: Graduate standing / Course prerequisites as determined for each offering. Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and presenting discussion material.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11512	001	Full Semester	-	-	-
Session						

## **THTR - Theatre**

#### THTR 122IA. Acting for Non-Majors. 3 Credits. (3 Lec) F

S, Su, On demand An introduction to the creative process engaged by a performer on a stage. Taught in a workshop format in which the individual student engages in exercises designed to convey stories and emotions through the understanding of human behavior as expressed on a stage.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11457	001	First 4 Weeks	MTWR	VCB233	2:00pm - 4:35pm
Session						

# **UC - University College**

#### UC 121US. Leadership Foundations. 3 Credits. (3 Lec) F,S

This face-to-face and web-enhanced course provides students with the opportunity to understand and develop leadership skills by examining individual and organizational leadership effectiveness through experiential learning in and out of the classroom. This is an introductory course for students interested in obtaining the MSU Leadership Fellows Certificate, but all students interested in leadership and leader development are welcome.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11678	801	First Half	-	-	-
Session			Session			

## **WGSS - Women's and Gender Studies**

#### WGSS 201IH. Intro to Feminist Theories. 3 Credits. (3 Lec) F

Major directions in feminist scholarship. Examination of the various schools of thought which have addressed gender inequities, and review of the strategies of cultural criticism which incorporate gender.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11030	801	First Half	-	-	-
Session			Session			

# WILD - Fish & Wildlife Science & Mgmt

WILD 429. Yellowstone Wildlife Habitat Ecology. 2 Credits. (2 Lec) Su

PREREQUISITES: Junior standing and a Biology course or consent of instructor. This course will describe the native communities of the internationally prominent northern Yellowstone winter range for wild ungulates. The ecology of many organisms, both plant and animal will be studied. Plant identification skills will be incorporated with an emphasis on the recognition of the Yellowstone northern range's flora and its importance as wildlife habitat. Ecosystem interrelationships will form the basis for understanding the ecology of the range and interpreting the consequences of management alternatives.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	10974	001	Non-standard	MTWR	ABB	6:00am - 9:00pm
Session			term dates 11-			
			JUN-18 16-			
			JUN-18			

# **WLDG - Welding Technology**

#### WLDG 281. Weld Testing Certification Lab. 2 Credits. (2 Lab)Su

PREREQUISITES: Limited to students with at least 3 years welding experience, or previous certification, or consent of instructor. Students will prepare, practice and qualify for plate and pipe, according to AWS D1.1, APT 1104, and ASME Section IX codes and standards. Gallatin College.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11012	001	Third 4 Weeks	MTWR	GCNMETAL	.S5:00pm - 10:00pm
Session					LAB	

# **WRIT** - Writing

#### WRIT 101W. College Writing I. 3 Credits. (3 Lec) F,S,Su

Studies the nature and practice of reading and writing as human interaction, with particular attention to elements of writing process and craft, to present new conceptions of writing as students enter the university writing environment.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11552	898	First 4 Weeks	-	-	-
2018 Summer Session	10906	002	Third 4 Weeks	MTWR	WIL1117	11:00am - 1:35pm
2018 Summer Session	10297	001	Second 4 Weeks	MTWR	WIL1153	8:00am - 10:35am
2018 Summer Session	10303	801	First Half Session	-	-	-
2018 Summer Session	11174	802	Second Half Session	-	-	-
2018 Summer Session	11387	098	Second Half Session	-	-	-

## WRIT 201. College Writing II. 3 Credits. (3 Lec) F,S

PREREQUISITE: WRIT 101W. Studies writing as a practice, process, and tool of inquiry in various academic domains. Bridges general study of writing in WRIT 101 and later discipline-specific study of writing. Emphasizes how to conduct inquiry through writing, and how to learn to write in new situations.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	10866	001	Second 4 Weeks	MTWR	WIL1124	11:00am - 1:35pm
2018 Summer Session	11394	002	Third 4 Weeks	MTWR	WIL1124	11:00am - 1:35pm

#### WRIT 205. Intro to Writing Studies. 3 Credits. (3 Sem) F

PREREQUISITE: WRIT 101W or equivalent. Overviews the Writing Option and the field of Writing Studies, its areas and methods of inquiry, and questions and issues of interest to writers an writing researchers and theorists from historical, cultural, social and psychological perspectives.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11614	001	First 4 Weeks	MTWR	WIL1124	11:00am - 1:35pm
Session						

WRIT 221. Intermediate Tech Writing. 3 Credits. (3 Lec) F,S PREREQUISITE: WRIT 101W. Focuses on kinds of writing done in technical or business environments: business letters, proposals, formal reports, technical presentations, user manuals, etc. Prepares students for technical writing in a range of disciplines and with attention to the social implications of technology.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer Session	11615	801	First Half Session	-	÷	-
2018 Summer Session	11616	001	Second 4 Weeks	-	-	-

#### WRIT 326. Advanced Writing. 3 Credits. (3 Lec) F

PREREQUISITE: WRIT 101 or equivalent. Advanced writing study and practice, with attention to topics like research writing and style.

Term	CRN	Section	Session/Dates	Days	Location	Time
2018 Summer	11173	801	First Half	-	-	-
Session			Session			

## WRIT 374. Magazine Editing. 3 Credits. (2 Lab,1 Rct) Su

PREREQUISITE: One WRIT course 300-level or above Magazine Editing and Production creates a studio-driven experience for students to walk through editorial considerations, design, and production of themed periodical publications such as magazines, journals, and websites.

Term		CRN	Section	Session/Dates	Days	Location	Time
2018 Sum	mer	11172	801	Full Semester	-	-	-
Session							

# **Summer Programs for Young People**

## **Continuing, Professional and Lifelong Learning**

For a brochure or more information contact:

Nicole Soll (406) 994-6633

ContinuingEd@ montana.edu (ContinuingEd@montana.edu) eu.montana.edu/ContinuingEd/youth

#### Minecraft Camp-NEW in 2018

Dates: Session 1: Aug 14-15, 2018 | Session 2: Aug 16-17, 2018

**Times:** 8:30 am - 4 pm **Cost:** Free to accepted applicants

Grades: Session 1: grades 4-5 (preferred) | Session 2: grades 6-7 (preferred)

Location: Montana State University, Bozeman

In this two day camp, participants will learn the basics of Minecraft and spatial related skills. Participants will spend the day on campus in one of the student computer labs to learn the beginning stages of Minecraft. Interested participants will need to apply and will be notified if accepted.

## Peaks and Potentials Grades 5-7 (in Fall 2018), June 17-22

Peaks and Potentials summer enrichment camp gives high ability/high potential students the opportunity to explore special topics of interest and work with experts in various subject areas. Academic, recreational and social activities offer students a chance to interact with their peers and sample campus life. Students may stay on campus or commute each day.

#### **Expanding Your Horizons in Math and Science (EYH)**

Dates: April 21, 2018

**Cost:** \$30

Grades: 6th-8th grade girls

Location: Montana State University, Bozeman, MT

Registration: Opens March 13, 2018

This one-day conference includes hands-on workshops in the fields of math and science for girls in grades 6, 7, and 8. The purpose of the program is to encourage young women to participate in these academic areas.

#### **Yellowstone Writing Project's Youth Writing Camp**

**Dates:** Jul 9-13, 2018 **Times:** 9 am - 3 pm daily

Cost: \$225 early bird, \$250 (after April 27, 2018)

Grades: 5-12 (in Fall 2017)

Location: Montana State University, Bozeman

The Yellowstone Writing Project's Youth Writing Camp is a multi-day "unschooled" writing workshop for youth entering grades 5-12. Campers will write in multiple genres and share their writing within a supportive community of peers and licensed educators—the Yellowstone Writing Project teacher consultants. The program includes walking field trips, writing games, and guidance and feedback throughout the writing process. The camp is led by Yellowstone Writing Project (YWP) Teachers and Jr. Counselors.

# **Museum of the Rockies**

### **Kids' Summer Camps**

Museum of the Rockies (MOR) offers week-long summer camps for children in elementary and middle school. Focusing on paleontology, space, homesteading and more, camp themes and activities draw on MOR's collections, research, and Living History Farm on the Museum's grounds. Registration opens in early January for MOR summer camps.

#### **Summer Daily Activities**

There's always something interesting to do at the Museum of the Rockies. From our Living History Farm, Native American Hall and Martin Children's Discovery Center to our Changing Exhibits, Taylor Planetarium and Siebel Dinosaur Complex, young people find a multitude of ways to learn and play at MOR every single day. For dates and details about specific programs and daily activities, please visit: www.museumoftherockies.org (http://www.museumoftherockies.org)

#### For more information, contact:

Museum of the Rockies

(406) 994-5257

visitmor@montana.edu

www.museumoftherockies.org (http://www.museumoftherockies.org)

#### **MSU Extension Service**

## **Montana 4-H Congress**

#### July 10-13

The annual Montana 4-H Congress will bring approximately 500 young people, volunteers and Extension professionals from around the state to the MSU campus for a week of educational activities and events. The program is co-sponsored by MSU Extension and the Montana 4-H Foundation.

Youth must be at least 13 years old as of October 1 of the current 4-H year.

#### For more information contact:

Your local county Extension agent or the 4-H Center for Youth

Development

MSU Extension Service

210 Taylor Hall

Bozeman, MT 59717-3580

(406) 994-3501

www.montana4h.org (http://www.montana4h.org)

## **Community Programs**

### **Bozeman Parks and Recreation Department**

The Bozeman Parks and Recreation Department offers a variety of programs, special events, and recreation classes in a variety of subjects for children, teens, adults and seniors. Children ages two and up may register for classes such as soccer, art, music and movement, Outdoor Adventure Skills, and many more. Outdoor fitness classes and leagues are available for teens and adults. Summer brochures are available in March.

#### For more information contact:

Bozeman Parks and Recreation Department

P.O. Box 1230

Bozeman, MT 59771

(406) 582-2910

www.bozeman.net/recreation (http://www.bozeman.net/recreation)

#### **Beall Park Recreation Center Rental**

The Beall Park Recreation Center located at 415 N. Bozeman Ave. is available for the public to rent for meetings, dinners, and other special occasions. The Recreation Center is also home to the Recreation Department staff offices.

#### Call for reservations:

Bozeman Parks and Recreation Department (406) 582-2290

## **Lindley Center Rental**

The Lindley Center, located at 1102 E. Curtiss, is the City of Bozeman's Recreation Building and is available for the public to rent for meetings, dinners, receptions and other special occasions. The facility has two rooms and a kitchen.

#### **Bozeman Swim Center**

The Bozeman Swim Center features a 50-meter indoor pool equipped with pool toys. There is also a fitness corner with stationary bikes and weight machines. The Center offers a variety of youth special events and family programs. The general public is invited to participate in water aerobics, lap swimming, recreation swimming, lessons, snorkeling, and a master's workout, swim team or synchronized swimming. The Center offers lifeguarding classes which include CPR for the professional rescuer, first aid, and AED certification.

#### Call for pool hours and fees:

Bozeman Swim Center 1211 W. Main (406) 582-2910

#### **Bogert Pool**

Bogert Pool is a family outdoor facility. The pool is open for recreation swimming beginning at 1:00 p.m. each day with a fee of \$3.00 for youth and \$4.00 for adults. Youth swimming lessons are offered beginning in June.

Check website for opening info: www.bozeman.net/recreation (http://www.bozeman.net/recreation)