

# 2017 *Summer* BULLETIN



**MONTANA STATE UNIVERSITY • BOZEMAN**

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# Welcome

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Welcome to Summer Session 2017 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:

- 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.
- If you're looking for something different this summer, browse through the **Uniquely Montana courses**. You can earn college credit while studying subjects such as photography, wildlife, music, and more!
- 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 master's degree programs** 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.

And when you're not in class . . .

- Be sure to explore the friendly city of Bozeman and surrounding area and partake in one or more **special summer events** (p. 51).

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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Bozeman, MT 59717

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

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# General Information

Associate Provost  
Director, Summer Session

Keely Holmes  
Program Manager

## Summer Session 2017 Dates

First 6-week session	May 15–June 23
Second 6-week session	June 26–August 4
12-week session	May 15–August 4
Intersession	June 12–August 4*
Education Intersession	June 12–July 21

\* Intersession is designed for courses of varying length

## Final Exam Dates

Summer Session courses conclude in their entirety on the dates given above. Final exams are generally administered on the last day of class.

## Holidays

Memorial Day	Monday, May 29
Independence Day Observed	Tuesday, July 4

## Admission Procedures

How to Apply for Admission (p. 9)

## Registration

**Continuing students** and **Former students who have filed an Intent to Register form** (Registration for Summer Session same time as Fall Semester). **Please refer to the Fall Registration Handbook** (<http://www.montana.edu/registrar/Handbooks.html>) **for instructions on how to register properly for SUMMER 2017 and FALL 2017.**

March 20	Advising begins
April 18	Registration begins for Summer 2017. Web site: <a href="http://www.montana.edu">www.montana.edu</a>
April 18	Registration begins for Fall 2017. Web site: <a href="http://www.montana.edu">www.montana.edu</a>

**All other students (new, transfer, etc.)** Please see How to Apply for Admission (p. 9) and How to Register for Classes (p. 5) for more information.

## Housing

For on-campus housing information, see Summer Housing (p. 16).

## Fee Payment

April 17–May 17, Student Accounts Office, 102 Montana Hall  
See Summer Fees (p. 14) for a fee schedule.

## For More Information

### Office of Summer Session

212 Montana Hall  
P.O. Box 172560  
Montana State University  
Bozeman, MT 59717-2560  
Phone: (406) 994-7136  
E-mail: [summer@montana.edu](mailto:summer@montana.edu)  
Web site: [www.montana.edu/summer](http://www.montana.edu/summer)

## Summer Session Staff

David Singel

# How to Register for Classes

Please note: Prior to registering for classes, **former students must file an Intent to Register form** with the Registrar's Office; **new students and summer-only students must apply for admission to MSU** (p. 9).

## Student Categories

### Continuing Students

- Continuing students are those registered in courses during Spring Semester 2017.
- 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 2017. 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 20** and registration begins **Monday, March 27** on the Web (refer to the Fall 2017 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 2017.
- 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**
  - Undergraduates**
    - Advising and Registration for new Summer Session students will begin **Wednesday, April 13**. 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](mailto: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 2017 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 17 - August 18) 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](http://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](http://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. 14).

## 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 non-degree 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. 9)).
- Registration procedure**
  - Undergraduates**
    - Advising and Registration for new Summer Session students will begin **Wednesday, April 13**. 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](mailto: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)
  - 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](mailto:registrar@montana.edu) ([//registrar@montana.edu](http://registrar@montana.edu))

[www.montana.edu/registrar](http://www.montana.edu/registrar)

### **The Graduate School**

(406) 994-4145

1-800-255-7962

[gradschool@montana.edu](mailto:gradschool@montana.edu)

[www.montana.edu/wwwdg](http://www.montana.edu/wwwdg)

### **Office of Summer Session**

(406) 994-7136

[summer@montana.edu](mailto:summer@montana.edu)

[www.montana.edu/summer](http://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](mailto:orientation@montana.edu)

Visit the Orientation Web page at [www.montana.edu/admissions/orientation](http://www.montana.edu/admissions/orientation).

## **Fall Semester 2017 Registration**

Please refer to the Fall 2017 Registration Handbook for instructions on how to register properly for Fall 2017. 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 27 through August 25.

### **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](mailto:admissions@montana.edu)

Visit the Office of Admissions Web page at [www.montana.edu/admissions](http://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

Nora Smith, Ass't. Dean for Academic Programs  
202 Linfield Hall  
(406) 994-5745  
norasmith@montana.edu

## Arts and Architecture

JoDee Palin  
217 Cheever Hall  
(406) 994-4405  
jpalin@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  
dmccray@montana.edu

## University Studies

Diane Donnelly, Director  
130 Gaines Hall

(406) 994-3532  
advising@montana.edu

## Health Professions Advising

Sheila Nielsen-Preiss, 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/curriculum-enrollment-graduation>) page.

### Drop/Add Schedule

	First 6-Week	Interession*	Second 6-Week	12 Week
<b>Instruction Begins</b>	Monday, May 15	Monday, June 12	Monday, June 26	Monday, May 15
<b>Last day to add online</b>	Tuesday, May 16	Wednesday, June 14	Tuesday, June 27	Thursday, May 18
<b>Last day to add; Pass/Fail petitions due</b>	Thursday, May 18	Monday, June 19	Thursday, June 29	Wednesday, May 24
<b>Last day to drop online</b>	Thursday, May 18	Monday, June 19	Thursday, June 29	Wednesday, May 24
<b>Drop without grade during this time</b>	May 15-22	June 12-22	June 26-July 3	May 15-June 1
<b>W grades only for drops during this time</b>	May 23-June 16	June 23-July 27	July 4-July 28	June 2-July 17
<b>No drops beginning this date</b>	Saturday, June 23	Friday, July 28	Saturday, July 29	Tuesday, July 18
<b>Classes End</b>	Friday, June 23	Friday, August 4	Friday, August 4	Friday, August 4

\* *Interession 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 5 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 19. 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](http://www.montana.edu/registrar).

## Improper Registration

A student who attends a class without being properly registered for it will not receive credit.

## 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/dates-deadlines.html#fall>)

<b>May 15</b>	Last day for international applications for fall semester (if this is different than your department, follow your department's date)
<b>May 15</b>	First 6-week session begins
<b>May 29</b>	Memorial Day holiday (no classes; offices closed)
<b>June 10</b>	Last day for graduate students to file "Application for Advanced Degree"
<b>June 26</b>	Second 6-week session begins
<b>July 4</b>	Independence Day holiday observed (no classes; offices closed)
<b>July 18</b>	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.
<b>August 4</b>	Interession ends; Last day of semester; classes end for 12 week and second 6 week, Last day to withdraw application for advanced degree

# 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](http://www.montana.edu/registrar/documents/pdfs/Intent_to_Register.pdf)) with the Registrar's Office.

## Admission Application Priority Deadlines for Summer Session 2017

Student Category	First 6-Week Session and Full 12-Week Session	Second 6-Week Session
New Students (degree-seeking undergraduates)	May 1, 2017	June 1, 2017
New Students (degree-seeking graduates)	based on departmental deadlines	based on departmental deadlines
Summer-Only and other Non-Degree Students (non-degree undergraduates)	May 1, 2017	June 1, 2017
Summer-Only and other Non-Degree Students (non-degree graduates)	based on departmental deadlines	based on departmental deadlines
International Student Applications	Feb. 1, 2017 (final deadline)	Feb. 1, 2017 (final deadline)

## Immunization Requirements

Students must meet MSU's immunization requirements before registering for classes. Student Health Services 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 Student Health Services 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 the Student Health Service 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, email or mail: On the Student Health Services (<http://www.montana.edu/health/immunization.html>) website, click on "forms" in the column on the left. Download and print the immunization and Tuberculosis Screening forms. 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, email to [immune@montana.edu](mailto:immune@montana.edu) or mail to:

MSU Student Health Services  
P.O. Box 173260  
Bozeman, MT 59717-3260.

For more information, call the Student Health Services at (406) 994-2311.

## For More Information About Admission Contact

### Office of Admissions

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

### The Graduate School

(406) 994-4125  
1-800-255-7962  
[gradschool@montana.edu](mailto:gradschool@montana.edu)

### Office of Summer Session

(406) 994-7136  
[summer@montana.edu](mailto: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](mailto:d(byork@montana.edu)rv@montana.edu) ([drv@montana.edu](mailto:drv@montana.edu))

## Undergraduate 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](http://www.montana.edu/registrar/documents/pdfs/Intent_to_Register.pdf)) with the Registrar's Office.

## Admission Application Priority Deadlines for Summer Session 2017

Student Category	First 6-Week Session and Full 12-Week Session	Second 6-Week Session
New Students (degree-seeking undergraduates)	May 1, 2017	June 1, 2017
Summer-Only and other Non-Degree Students (non-degree undergraduates)	May 1, 2017	June 1, 2017
International Student Applications	Feb. 1, 2017 (final deadline)	Feb. 1, 2017 (final deadline)

## 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).

#### **Admission application procedure:**

1. Complete the MSU Application for Admission (<https://www.msuadmissions.org/application/index.cfm?&isndsl>) or  
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 Student Health Services (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)

#### **Admission application procedure:**

1. Complete the MSU Application for Admission (<https://www.msuadmissions.org/application/index.cfm?&isndsl>) or  
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)
3. 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 Student Health Services (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.

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

#### **Admission application procedure:**

1. Complete the MSU Application for Admission (<https://www.msuadmissions.org/application/index.cfm?&isndsl>)

or

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 Student Health Services (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 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](http://www.montana.edu/registrar/documents/pdfs/Intent_to_Register.pdf)) with the Registrar's Office.

### **Admission Application Deadlines for Summer Session 2017**

Student Category	First 6-Week Session and Full 12-Week Session	Second 6-Week Session
New Students (degree-seeking graduates)	based on departmental deadlines	based on departmental deadlines
Non-Degree Students (non-degree graduates)	First day of first 6-week session	First day of second 6-week session
International Student Applications	based on departmental deadlines	based on departmental deadlines

### **New Degree-Seeking Graduate Students**

- 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

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

- 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;
- Applied after the admission deadline; or
- 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.

## Admission Application Procedure

1. Complete the application for The Graduate School online at this link: [www.montana.edu/gradschool/apply.html](http://www.montana.edu/gradschool/apply.html). Pay: \$60 non-refundable application fee. 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.
2. 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; 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).
4. 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>)")
5. Additional Materials are required by International Applicants (<http://www.montana.edu/gradschool/admissions/apply.html>).

Every applicant who applies for admission to MSU and completes an application will receive a formal decision by The Graduate School, whether they have, or have not, been admitted. This application process involves a review of your completed application packet by the program committee prior to it arriving in the Graduate School for final review.

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



# Graduate Programs

## Graduate Degrees Conferred

### Degrees

Adult & Higher Education (M.Ed., Ed.D. & Ph.D.)\*\*  
 Agricultural Education (M.S.)\*\*  
 American Studies (M.A. & Ph.D.)  
 Animal & Range Science (M.S. & Ph.D.)  
 Applied Economics (M.S.)  
 Applied Mechanics (Ph.D.)  
 Architecture (M.Arch.)  
 Art (M.F.A.)  
 Art History (M.A.)  
 Biochemistry (Ph.D.)  
 Bioengineering Engineering (M.Eng.)  
 Biological Sciences (M.S.) (Ph.D.)  
 Chemical & Biological Engineering (M.S. & Ph.D.)  
 Chemical Engineering (M.S., M.Eng. & Ph.D.)  
 Chemistry (M.S. & Ph.D.)  
 Civil Engineering (M.S. & Ph.D.)  
 Computer Science (M.S.) (Ph.D.)  
 Counseling (M.S.) (Options: Marriage & Family, Mental Health, and School)  
 Curriculum & Instruction (M.Ed., Ed.D. & Ph.D.)\*\*  
 Earth Sciences (M.S. & Ph.D.)  
 Educational Leadership (M.Ed., Ed.D. & Ph.D.) (Superintendent & Principal Endorsement\*)  
 Education Specialist (Ed.S.)  
 Electrical & Computer Engineering (M.S., M.Eng. & Ph.D.)  
 Ecology & Environmental Sciences (Ph.D.) Interdisciplinary  
 English (M.A.)  
 Entomology (M.S.)  
 Environmental Engineering (M.S. & Ph.D.) Interdisciplinary  
 Exercise & Nutrition Sciences (M.S.)  
 Family Financial Planning (M.S.)\*  
 Fish & Wildlife Management (M.S.)  
 Fish and Wildlife Biology (Ph.D.)  
 Food, Family & Community Health Sciences (M.S.)  
 Health Sciences (M.S.) Interdisciplinary  
 History (M.A. & Ph.D.)  
 Immunology and Infectious Disease (M.S. & Ph.D.)  
 Industrial & Management Engineering (M.S. & Ph.D.)  
 Land Rehabilitation (M.S.) Interdisciplinary  
 Land Resources & Environmental Sciences (M.S.)\*\*  
 Materials Science (Ph.D.) (Interdisciplinary & Intercampus)\*\*  
 Mathematics (M.S. & Ph.D.) (Options in Math Education)  
 Mechanical Engineering (M.S. & M.Eng. & Ph.D.)  
 Microbiology (M.S. & Ph.D.)  
 Native American Studies (M.A.)  
 Neuroscience (M.S. & Ph.D.)  
 Nursing: ADRN to MN & Clinical Nurse Leader (M.N.)\*\*  
 Nursing (D.N.P.) (Options: Practice Family/Individual or Psych/Mental)\*\*  
 Optics Engineering (M.S.) Interdisciplinary  
 Physics (M.S. & Ph.D.)  
 Plant Pathology (M.S.)  
 Plant Science (M.S. & Ph.D.)  
 Professional Accountancy (M.P.Ac.)  
 Psychological Science (Ph.D.)  
 Public Administration (M.P.A.)  
 Science Education (M.S.) Interdisciplinary\*\*  
 Science & Natural History Film Making (M.F.A.) Interdisciplinary  
 Statistics (M.S. & Ph.D.)

## Certificate Programs

Addiction Counselor\*\*  
 Applied Statistics\*  
 Chemistry Teaching\*\*  
 College Teaching\*  
 Earth Science Teaching\*\*  
 Elementary School Science Teaching\*\*  
 Library Media\*\*  
 Life Science Teaching\*\*  
 MDI: Montana Dietetic Internship\*  
 Native American Studies\*\*  
 Nursing Education\*\*  
 Physics Teaching\*\*  
 Post-Baccalaureate Pre-Medical\*

\* online program

\*\* online or onsite program

## Graduate Admissions

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 (3.0–4.0) or better of undergraduate or graduate work. Some departments may require a master's degree prior to admission to a doctoral program.

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. All applicants will receive a formal decision.

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.

For full explanation of the above, see the Graduate School's Policies and Procedures.

## 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 exam score, using: TOEFL, PTE, or IELTS. See the International Application ([http://www.montana.edu/gradschool/policy/admissions\\_intl.html](http://www.montana.edu/gradschool/policy/admissions_intl.html)) page for additional information.

**American Cultural Exchange Language Institute**  
**([http://www.montana.edu/international/admissions/  
language\\_instruction.html](http://www.montana.edu/international/admissions/language_instruction.html))**

The American Cultural Exchange Language Institute (ACELI) at Montana State University is an academic preparation program in seven levels.

Through enrollment, the ACELI prepares international students for the TOEFL exam.

**For detailed information, see The Graduate School at MSU Web page at [www.montana.edu/gradschool](http://www.montana.edu/gradschool).**

# Summer Fees

## Fees as of January 2017

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](http://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; the amount depends on attendance for the 6-week sessions, intersession, or the 12-week session. 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.

### Undergraduate and Post-Baccalaureate Six Weeks & Intersession

Credits	Resident	Non-Resident
01	\$335.10	\$1,014.20
02	\$582.60	\$1,940.80
03	\$830.10	\$2,867.40
04	\$1,077.60	\$3,794.00
05	\$1,325.10	\$4,720.60
06	\$1,572.60	\$5,647.20
07	\$2,013.25	\$6,766.95
08	\$2,260.75	\$7,693.55
09	\$2,508.25	\$8,620.15
10	\$2,755.75	\$9,546.75
11	\$3,003.25	\$10,473.35
12	\$3,250.75	\$11,399.95

### Twelve Weeks

Credits	Resident	Non-Resident
01	\$335.10	\$1,014.20
02	\$582.60	\$1,940.80
03	\$830.10	\$2,867.40
04	\$1,077.60	\$3,794.00
05	\$1,325.10	\$4,720.60
06	\$1,572.60	\$5,647.20
07	\$2,046.35	\$6,800.05
08	\$2,293.85	\$7,726.65
09	\$2,541.35	\$8,653.25
10	\$2,788.85	\$9,579.85
11	\$3,036.35	\$10,506.45
12	\$3,283.85	\$11,433.05

### Graduate

#### Six Weeks & Intersession

Credits	Resident	Non-Resident
01	\$379.50	\$1,058.60
02	\$671.40	\$2,029.60
03	\$963.30	\$3,000.60
04	\$1,255.20	\$3,971.60
05	\$1,547.10	\$4,942.60
06	\$1,839.00	\$5,913.60

07	\$2,324.05	\$7,077.75
08	\$2,615.95	\$8,048.75
09	\$2,907.85	\$9,019.75
10	\$3,199.75	\$9,990.75
11	\$3,491.65	\$10,961.75
12	\$3,783.55	\$11,932.75

### Twelve Weeks

Credits	Resident	Non-Resident
01	\$379.50	\$1,058.60
02	\$671.40	\$2,029.60
03	\$963.30	\$3,000.60
04	\$1,255.20	\$3,971.60
05	\$1,547.10	\$4,942.60
06	\$1,839.00	\$5,913.60
07	\$2,357.15	\$7,110.85
08	\$2,649.05	\$8,081.85
09	\$2,940.95	\$9,052.85
10	\$3,232.85	\$10,023.85
11	\$3,524.75	\$10,994.85
12	\$3,816.65	\$11,965.85

## 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 \$65.00 for new freshmen and \$50.00 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](http://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 proposed fee tables, above). **Note:** All fees subject to change with Montana Board of Regents approval.

## Fee Payment

Fee payment for Summer Session will take place April 17 through May 15. Payments may be made using one of the following options:

- **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 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.**

### Fee Payment Deadlines

First 6 weeks	May 18
Second 6 weeks	June 28
Full 12 weeks	May 18
Intersession	June 14

### 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](http://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 15. 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 sixth day of instruction in a 6-week or intersession, or after the 12th 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 received from the Office of Student Success.

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 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](mailto:vets@montana.edu)  
[www.montana.edu/veteran](http://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:

### 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 15-16	90%
May 17-18	75%
May 19-22	50%
After May 22	No refunds

#### Second 6-Week Session

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
June 26-27	90%
June 28-29	75%
June 30-July 3	50%
After July 3	No refunds

### Intersession

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
June 12-14	90%
June 15-19	75%
June 20-22	50%
After June 22	No refunds

### 12-Week Session

Day of Instruction	Percentage of Fees Refunded*
Registration day (if prior to first day of session)	100%
May 15-18	90%
May 19-24	75%
May 25-June 1	50%
After June 1	No refunds

\* Does not include Registration Fee, which is non-refundable.



# Summer Housing and Meals

## Residence Halls & Suites

### Residence Life/University Food Service

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 14, at 9:00 a.m.

Please visit the Residence Life web site at [www.montana.edu/reslife](http://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 2017.

### Estimated Room Rates

1st 6-week session (May 14- June 24) \$483.00\*

2nd 6-week session (June 25- August 5) \$483.00\*

12-week session (May 14- August 5) \$966.00\*

12-month contract\*\* (May 6- August 22) \$1070.00\*

\* All residence halls have a \$10 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 prices include ResNet Internet service.

\*\* In order to be eligible for the 12-month housing contract, students must have lived in the residence halls during spring semester 2017 and have a 2017-2018 housing application on file. Early cancellation of contract (either summer or fall) will result in penalties.

### Credit Requirements

Students enrolled in the 6 and 12 week sessions must be registered for a minimum of 3 credits at the time of their housing to be eligible to live in

the residence halls. Students participating in the “12-month contract” do not need to be enrolled in Summer Session courses to reside in the halls.

## Summer Housing Applications and Contracts

Applications will be available starting February 1 on the Residence Life website at [www.montana.edu/reslife](http://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 14, at 9:00 a.m.

## Food Service

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 three 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 located in Johnstone Center):

25 meals	\$193.75
50 meals	\$362.50
75 meals	\$506.25
100 meals	\$625.00

## Individual Meals

(purchased at the entrance to the Food Service):

Breakfast	\$8.00
Lunch	\$9.00
Dinner	\$10.00

For more information about meals, visit the Food Service Web site at [www.montana.edu/ufs](http://www.montana.edu/ufs).

## Family & Graduate Housing

### Family & Graduate Housing Office

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

# Cat Card

## Cat Card (Campus ID Card)

### Cat Card Office

Room 134, Strand Union Building  
(406) 994-CARD (994-2273)  
[www.montana.edu/catcard](http://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, 134 SUB; the Residence Life Cashier's Office in the Hedges Complex; or online at [www.montana.edu/catcard](http://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 Services
  - University Police

# Forms and Applications

## Admission Form

### Undergraduate Students

All new undergraduate students—whether they be degree-seeking, non-degree, or summer-only—must complete the MSU Application for Admission, available online at [www.montana.edu/admissions/apply.html](http://www.montana.edu/admissions/apply.html). A paper application is also available from the Office of Admissions upon request: (406) 994-2452 ([http://catalog.montana.edu/summer-bulletin/forms-applications/tel:\(406\)%20994-2452](http://catalog.montana.edu/summer-bulletin/forms-applications/tel:(406)%20994-2452)) or [admissions@montana.edu](mailto:admissions@montana.edu). ([admissions@montana.edu](mailto:admissions@montana.edu))

### Graduate Students

New graduate students may access an online application for admission by going to [www.montana.edu/gradschool/apply.html](http://www.montana.edu/gradschool/apply.html). Paper applications are available upon request from the Graduate School: (406) 994-4145 ([http://catalog.montana.edu/summer-bulletin/forms-applications/tel:\(406\)%20994-4145](http://catalog.montana.edu/summer-bulletin/forms-applications/tel:(406)%20994-4145)) or [gradschool@montana.edu](mailto:gradschool@montana.edu). ([gradschool@montana.edu](mailto:gradschool@montana.edu))

## Course Registration

New and summer-only undergraduate students will no longer be using a paper form to register for classes (p. 5).

## Intent to Register Form

The Intent to Register form is used by former students to notify the Office of the Registrar that they wish to return to enrollment at MSU. Former students are those who have previously been admitted to MSU and paid fees, but who did not attend or withdrew from Spring Semester 2017. Former students who wish to attend Summer Session 2017 should file an Intent to Register form 30 days prior to registration, using the online form through MyInfo:

- Enter Secure Area, Login
- Select Student Services
- Select MSU Bozeman Online Intent to Register

The Registrar's Office will send registration information to students via the email address they have provided on the Intent to Register form.

## Summer Housing Applications

- Residence Hall Applications: [www.montana.edu/reslife](http://www.montana.edu/reslife)  
Call (406) 994-2661 ([http://catalog.montana.edu/summer-bulletin/forms-applications/tel:\(406\)%20994-2661](http://catalog.montana.edu/summer-bulletin/forms-applications/tel:(406)%20994-2661)) for more information
- Family & Graduate Housing Applications: [www.montana.edu/fgh](http://www.montana.edu/fgh)  
Call (406) 994-3730 ([http://catalog.montana.edu/summer-bulletin/forms-applications/tel:\(406\)%20994-3730](http://catalog.montana.edu/summer-bulletin/forms-applications/tel:(406)%20994-3730)) for more information



# Student Services at MSU

## Dean of Students Office

174 Strand Union

994-2826

[www.montana.edu/deanofstudents](http://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](http://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](http://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 non-profit 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](http://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 one-on-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 course.
- **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](http://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.

## Counseling & Psychological Services

211 Swingle Hall (above Student Health)

994-4531

[www.montana.edu/wwwcc](http://www.montana.edu/wwwcc)

Counseling & Psychological Services provides free, confidential counseling to eligible summer session students. Limited services are provided on an appointment-only basis. For questions about eligibility or to schedule an appointment, please call 994-4531.

## ASMSU Day Care Preschool

Louise Shunk Day Care/Community Center

1295 West Garfield St.

994-4370

[www.montana.edu/wwwasmsu/daycare.html](http://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/drv](http://www.montana.edu/drv)

- **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](http://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 2016-2017 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, 2017. **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](http://www.montana.edu/wwwfa).

The priority date for summer financial assistance is March 31, 2017. Your summer financial aid application will be reviewed only if information from your 2014-2015 FAFSA is available.

**The last day to apply for summer aid is June 30, 2017. 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](http://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](http://www.montana.edu/getfit)
- Find us on Facebook! [www.facebook.com/MSURecSports](http://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](http://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](http://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](http://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](http://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](http://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

## Student Health Service Swingle Health Center

994-2311

[www.montana.edu/health](http://www.montana.edu/health)

Summer Session students may obtain medical care and treatment at the Swingle Health Service located on the east side of the Strand Union. Available services during the summer include treatment of illnesses and injuries, dental services, pharmacy, laboratory services, x-ray, nutrition services and assistance with health insurance needs.

During the summer while school is in session the Student Health Service is open Monday through Friday from 9:00 to 11:30 a.m. and from 1:00 to 4:00 p.m. Between semesters, the Student Health Service is open Monday through Friday from 8:00 to 11:30 a.m.

Summer Session students who register for seven or more credit hours are required to pay the health fee and are thus eligible to use the Health Service during the time period for which they are enrolled. Students taking fewer than seven credit hours have the option of paying the health fee.

For immunization requirements and forms, please consult the Student Health Service Web site listed above.



# Vehicle Registration

## University Police Department

Roy Huffman Building

Corner of S. 7th & Kagy

994-2121

[www.montana.edu/wwwmsupd](http://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 2016-2017 academic year)

R1	\$389
R2-R4	\$285
R5-R10	\$238
SB lots	\$93
E lots	\$93
F lot	\$20
FH	\$52
Motorcycles	\$33

Hang tags are available for \$4.00 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.

# 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 or harassment based upon race, color, religion, national origin, ethnicity, creed, service in the uniformed services (as defined in state and federal law), veteran status, gender, age, political beliefs, marital or family status, pregnancy, physical or mental disability, genetic information, gender identity, gender expression, or sexual orientation or preference is prohibited.

The University is committed to taking positive and effective actions in the recruitment, hiring, training, and promotion of persons in all classes of employment to help overcome the present effects of past discrimination and increase opportunities for qualified women and minorities, persons with disabilities, and covered veterans. In addition, Montana State University assumes particular responsibility for providing opportunities for education and training for the state's Native American peoples in the various disciplines and professions that are characteristic of this land-grant university.

Any student, employee, applicant for employment or admission, participant in University activities or other person who believes he or she was subject to 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/](http://www.montana.edu/equity/discrimination/) or contact OIE at (406) 994-2042, Hamilton Hall Room 118.

Employees or students who commit and/or supervisors who knowingly condone or fail to report incidents of discrimination are subject to disciplinary actions when instances of discrimination are identified and confirmed. Knowingly filing false complaints of discrimination or knowingly providing false testimony may likewise result in disciplinary or corrective action when instances of such conduct are identified and confirmed. Retaliation against persons who file complaints or serve as witnesses is also a violation of laws prohibiting discrimination and will lead to appropriate disciplinary action against offenders when instances of such conduct are identified and confirmed.

Montana State University affords any student, employee, applicant for employment or admission, participant in University activities or other person who believes he or she was discriminated against by the University, the right to file a grievance on grounds of discrimination. As a condition of their employment and enrollment, employees and students are expected to cooperate in investigations of complaints of discrimination. Failure to cooperate will result in disciplinary action.

## Sexual Harassment

Sexual harassment is unwelcome sexual advances, requests for sexual favors, sexual misconduct, and other physical or verbal conduct of a sexual nature, when:

- Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, education, living environment or participation in a university activity;
- Submission to or rejection of such conduct by and individual is used as the basis for or a factor in decisions affecting that individual's employment, education, living environment, or participation in a University activity;
- Such conduct has the purpose or effect of unreasonably interfering with an individual's employment or educational performance or creating an intimidating, hostile, offensive, or abusive environment for that individual's employment, education, living environment, or participation in a University activity.
- Such conduct is so pervasive or severe that it has the purpose or effect of unreasonably interfering with an individual's work or academic performance or limiting participation in University programs;
- The intent or effect of such pervasive or severe conduct is to create an intimidating, hostile, or offensive academic or work environment

Whether conduct constitutes sexual harassment is determined based upon both a subjective and objective standard, as well as consideration of the totality of the particular circumstances, including the nature, frequency, intensity, location, context, and duration of the behavior. Although repeated incidents generally create a stronger claim of sexual harassment, a serious incident, even if isolated, can be sufficient.

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

Title IX and its implementing regulation, at 34 C.F.R. § 106.31 (a), provide that no person shall on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any academic, extracurricular, research, occupational training, or other education program or activity operated by the University.

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, such as sexual intercourse without consent, sexual assault, and sexual coercion. 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-Bozeman is:

Jyl Shaffer, MA  
Interim Director/Title IX Coordinator – Office of Institutional Equity  
Montana State University  
P.O. Box 172430  
Bozeman, MT 59717-2430

Tel: (406) 994-2042  
Fax: (406) 994-7999  
E-mail: [jyl.shaffer@montana.edu](mailto:jyl.shaffer@montana.edu) ([oi@montana.edu](mailto:oi@montana.edu))  
Location: 114 Hamilton Hall  
<http://www.montana.edu/titleix/>

Any student or visitor with questions or concerns about sex discrimination or sexual harassment or who believes that he or she has been the victim of sex discrimination or sexual harassment may contact the Title IX Coordinator for assistance. The Title IX Coordinator is responsible for receiving and conducting the administrative investigation of reports of sexual harassment and assault filed on campus by students and employees, and is available to discuss options, explain university policies and procedures, and provide education on relevant issues. To submit a complaint online, <http://www.montana.edu/titleix/> or contact the Title IX Coordinator in the Office of Institutional Equity located at 118 Hamilton Hall, (406) 994-2042.

## Consensual Relationships

[http://www2.montana.edu/policy/affirmative\\_action/aa100.html#180.00\\_Relationships](http://www2.montana.edu/policy/affirmative_action/aa100.html#180.00_Relationships)

A consensual romantic relationship in which one party is in a position to evaluate the work of the other is a potential conflict of interest. When such a potential conflict of interest results between employees or an employee and a student, the employee shall promptly disclose the potential conflict of interest to his or her supervisor. The supervisor and the employee shall take steps to ensure that there is no conflict of interest.

Email: [oe@montana.edu](mailto:oe@montana.edu)  
[www.montana.edu/equity/](http://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/](http://www2.montana.edu/policy/affirmative_action/) or in print from the address above.

## 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 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/](http://www.montana.edu/hr/)
2. **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/](http://www.montana.edu/hr/)
3. **To request 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 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.
6. **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

# Financial Aid

## Office of Financial Aid Services

Room 183 Strand Union Building  
(406) 994-2845  
[www.montana.edu/wwwfa](http://www.montana.edu/wwwfa)

## Summer Session Financial Aid

Applying for Summer Session 2017 financial aid requires two separate application processes:

1. You must complete a 2016-2017 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 2016-2017 FAFSA must be received by the federal processor no later than June 30, 2017. **This is an absolute deadline.** Applications received by the processor after June 30 will not be considered for summer funds. If you applied for federal financial assistance for Fall 2016 or Spring 2017 semesters, you have already completed a 2016-2017 FAFSA.

Complete the FAFSA electronically at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) (<http://www.fafsa.ed.gov>).

## Completing the MSU Summer Supplemental Application

If your FAFSA was received by the federal processor by June 30, 2017, you may apply for summer aid by completing the MSU Summer Supplemental Application. The priority date for summer financial assistance is March 31, 2017. Your Summer Supplemental 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, 2017. Requests for summer term financial aid will not be accepted after this date.

Copies of the Summer Supplemental Application are available by clicking on the Forms link on the Financial Aid Services Web site at [www.montana.edu/wwwfa](http://www.montana.edu/wwwfa).

## 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

## 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.

## 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:

1. You have completed and returned all required financial aid documents and loan promissory notes to the Office of Financial Aid Services.
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

## 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/](http://www.montana.edu/wwwfa/).

## 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 and pay a \$30 loan application fee. 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 Aid Services must verify that each student requesting a book loan has adequate funds, 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. When the student's financial aid is disbursed, it is applied to the book loan as well as to a non-refundable loan processing fee of \$30.00. This loan may be requested from the Office of Financial Aid Services.

## Financial Aid for Fall/Spring Semesters 2017-2018

You must complete the 2016-2017 Free Application for Federal Student Aid (FAFSA) in order to be considered for financial assistance for 2017 Fall Semester and/or 2018 Spring Semester.

The following dates apply:

<b>December 1, 2016</b>	<b>Priority filing date</b> for 2017-2018 FAFSA.
<b>November 15, 2017</b>	<b>Final filing date</b> for 2017-2018 FAFSA for 2017 Fall Semester aid
<b>March 31, 2018</b>	<b>Final filing date</b> for 2017-2018 FAFSA for 2018 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](http://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](http://www.montana.edu/wwwfa) or by calling Financial Aid Services at (406) 994-2845.

### Financial Aid Deadlines for Summer Session 2017

<b>March 31, 2017</b>	<b>Priority date</b> to submit MSU Summer Supplemental Application Form
<b>June 30, 2017</b>	<b>Final date</b> to submit MSU Summer Supplemental Application Form
<b>June 30, 2017</b>	<b>Final date</b> for 2016-2017 FAFSA to arrive at the federal processor

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



# Summer Offerings

Summer Session 2017 brings a variety of credit and non-credit opportunities to a diverse audience, including continuing MSU students, summer-only students, children, and adult learners.

- Education for Educators (p. 43) Education for Educators consists of Master's Degree Programs and Non-Degree and Certification Programs geared toward those in the education field.
- General Engineering Courses (p. 43) Each of the listed General Engineering courses will be offered this summer with both an on-campus section and an online section.
- Native American Studies Graduate Certificate (p. 43) 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.
- Preliminary Course Listing (p. 31) The following preliminary course listing was compiled in February, 2017. Since that time, some courses may have been added and other courses cancelled.
- Schedule of Courses (p. 29) Find information on course numbering and course and building abbreviations used across campus.
- Summer Core Courses (p. 37) 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.
- Summer Online Courses (p. 39) 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.
- Summer Science and Mathematics Courses for Pre-Med (p. 41) Summer Session 2017 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 two six-week summer sessions, thus enabling students to earn up to 16 science and mathematics credits in only 12 weeks.
- Sustainable Food and Bioenergy Systems (p. 43) The Sustainable Food and Bioenergy Systems (SFBS) B.S. degree program is an exciting, innovative interdisciplinary program from Montana State University that promotes the sustainable production, distribution, and consumption of food and bioenergy. You will experience collaborative learning, directed coursework, and hands-on training.
- Uniquely Montana (p. 35) A wide variety of special courses is available at MSU during Summer Session 2017, and we've highlighted a few of them here. Many of these courses are offered only during the summer and take advantage of southwestern Montana's natural environment; others provide professional development opportunities for teachers and coaches; still others offer unique experiences in archaeology. There's a little something for everyone—including selections in art, music, languages, theatre, geology, ecology, and gardening.

## Schedule of Courses

Following (p. 31) is the Summer Session 2017 preliminary course listing as of January 2017.

Please refer to the Summer Session class schedule online for the most current information. **The schedule will be mostly complete by February 28, 2017.** 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.

**The 2016 Summer Session Schedule of Classes may be accessed online as follows:**

1. Go to Web site: [www.montana.edu](http://www.montana.edu) (MSU home page)
2. Click on: MyInfo (bottom left-hand corner of page), Schedule of Classes
3. Select term: 2017 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 cancelled. Also, in the rare case when an instructor is not available due to a last minute emergency, courses may be cancelled.

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

For course descriptions, please consult the MSU Course Bulletin or visit the Web site at [www.montana.edu/wwwcat/courses/courses2.html](http://www.montana.edu/wwwcat/courses/courses2.html).

## 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

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 Creative 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 supervision of 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.

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

1. 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
3. 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

First 6-week session	May 15 - June 23
Second 6-week session	June 26 - August 4
12-week session	May 15 - August 4
Intersession	June 12 - August 4*
Education Intersession	June 12 - July 21

\* 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
U	Sunday

## Building Abbreviations

<b>ABB</b>	Animal BioScience Bldg.
<b>AJM</b>	Arthur J. M. Johnson Hall
<b>BFH</b>	Breeden Fieldhouse
<b>BOZ</b>	Bozeman (Nursing, Deaconess Hospital)
<b>BOZC</b>	Bozeman Convalescent Center
<b>CHBCH</b>	Chemistry/Biochemistry Bldg.
<b>CHMN</b>	Chemistry Modular North
<b>CHMS</b>	Chemistry Modular South
<b>CHVR</b>	Cheever Hall
<b>COBH</b>	Cobleigh Hall
<b>EPS</b>	Engineering Physical Science
<b>FCMO</b>	Faculty Court Modular
<b>GH</b>	Gaines Hall
<b>HAM</b>	Hamilton Hall
<b>HANH</b>	Hannon Hall
<b>HAYN</b>	Haynes Hall
<b>HELN</b>	Helena
<b>HH</b>	Herrick Hall
<b>HOWH</b>	Howard Hall
<b>JABS</b>	Jake Jabs Hall
<b>JONH</b>	Leon H. Johnson Hall
<b>LEWH</b>	Lewis Hall
<b>LINH</b>	Linfield Hall
<b>MARL</b>	Marsh Research Laboratory
<b>MCH</b>	McCall Hall
<b>MH</b>	Montana Hall
<b>MSP</b>	Miller Stock Pavilion
<b>NS</b>	Nursery School
<b>PBS</b>	Plant BioScience Bldg.
<b>PEC</b>	Physical Education Complex
<b>PLGR</b>	Plant Growth Center
<b>REID</b>	Reid Hall
<b>RLIB</b>	Renne Library
<b>ROBH</b>	Roberts Hall
<b>ROM</b>	Romney Gymnasium
<b>SHC</b>	Student Health Center
<b>SHER</b>	Sherrick Hall
<b>SUB</b>	Strand Union Bldg.
<b>TAYH</b>	Taylor Hall
<b>TCE</b>	Temporary Classroom East
<b>TCW</b>	Temporary Classroom West
<b>THTR</b>	Theater, Strand Union
<b>TRAP</b>	Traphagen Hall
<b>VCB</b>	Visual Communications
<b>WIL</b>	Wilson Hall

## Preliminary Course Listing

### Summer Session 2017 Preliminary Course Listing (as of February, 2017)

Go online for the most current information.

The following preliminary course listing was compiled in February, 2017. 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](http://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.

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

#### Accounting

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>4</sup>	3

#### Activities - General

ACT 110	Beginning Weight Training <sup>2</sup>	1
ACT 129	Circuit Training <sup>1</sup>	1
ACT 150	Beginning Yoga <sup>2</sup>	1
ACT 169	Beginning Tennis <sup>1</sup>	1

#### Agricultural Education

AGED 494	Seminar <sup>4</sup>	3
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#### Allied Health: Medical Assist

AHMA 201	MA Clinical Procedures I (Gallatin College Only) <sup>1</sup>	4
AHMA 280	Med Assisting Exam Prep (Gallatin College Only) <sup>3</sup>	1

#### Allied Health: Medical Support

AHMS 144	Medical Terminology (Gallatin College Only-Blended Online/Onsite) <sup>4</sup>	3
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#### American Studies

AMST 101D	Introduction to American Studies <sup>2*</sup>	3
AMST 202RA	The Arts in America <sup>1*</sup>	3

#### Animal and Range Sciences

ANSC 322	Principles of Animal Breeding and Genetics <sup>3*</sup>	3
ARNR 529	Yellowstone Wildlife Habitat Ecology (Contact department for required dates) <sup>4</sup>	2

#### Anthropology

ANTY 101D	Anthropology and the Human Experience <sup>2*</sup>	3
ANTY 242D	Contemporary Japan <sup>1*</sup>	3

#### Architecture

ARCH 121IA	Introduction to Design <sup>1</sup>	3
ARCH 151RA	Design Fundamentals I <sup>1</sup>	4
ARCH 152IA	Design Fundamentals II <sup>2</sup>	4
ARCH 253	Architectural Design I <sup>3</sup>	5
ARCH 254	Architectural Design II <sup>3</sup>	5
ARCH 355	Architectural Design III <sup>3</sup>	5
ARCH 356	Arch Design IV <sup>3</sup>	5
ARCH 414	Architectural Study Abroad <sup>3</sup>	9
ARCH 425	West Architectural History <sup>3</sup>	3
ARCH 426	History of Identity of Contemporary Places <sup>3</sup>	3
ARCH 428	Foreign Study History <sup>3</sup>	3
ARCH 431	Sustainability in Architecture <sup>3*</sup>	3
ARCH 450	Community Design Center <sup>1</sup>	5
ARCH 527	Architecture: Meaning & Place <sup>1</sup>	3

#### Art - Art History

ARTH 310	Ancient Art Mesoamerica <sup>2</sup>	3
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ARTH 435	Art in the United States <sup>1</sup>	3
<b>Art - Visual Arts</b>		
ARTZ 105RA	Visual Language - Drawing <sup>1</sup>	3
ARTZ 109RA	Visual Language: Comprehensive Foundation <sup>1</sup>	4
ARTZ 110RA	Visual Language: Ideation and Creativity <sup>2</sup>	4
ARTZ 231RA	Ceramics I <sup>2</sup>	4
ARTZ 376	Intermediate Printmaking - Relief <sup>1</sup>	0-5
ARTZ 491	Special Topics (Functional Design) <sup>4</sup>	1-5
ARTZ 491	Special Topics (Wild Clay Intensive) <sup>2</sup>	3
<b>Biochemistry</b>		
BCH 380	Biochemistry <sup>1</sup>	5
<b>Biology</b>		
BIOL 591	Special Topics (Plant Sci: It grows on You) <sup>4*</sup>	1
BIOL 591	Special Topics (Anatomy & Physiology) <sup>4*</sup>	3
<b>Biology - Ecological</b>		
BIOE 416	Alpine Ecology <sup>2</sup>	3
BIOE 421	Yellowstone Wildlife Ecology <sup>1</sup>	3
<b>Biology - General</b>		
BIOB 375	General Genetics <sup>1</sup>	3
BIOB 497	Educational Methods: Biology (Cellular and Neurobiology) <sup>1</sup>	2
BIOB 497	Educational Methods: Biology (Ecology) <sup>2</sup>	2
<b>Biology - Human</b>		
BIOH 201	Human Anatomy and Physiology I <sup>4</sup>	5
BIOH 464	Clinical Hematology and Body Fluids <sup>3</sup>	2
BIOH 466	Clin Microbiology I <sup>3</sup>	3
BIOH 467	Clinical Chemistry I <sup>3</sup>	3
BIOH 468	Clinical Immunohematology I <sup>3</sup>	3
BIOH 469	Essentials of Clinical Lab Practice <sup>3</sup>	1
<b>Business - Finance</b>		
BFIN 322	Business Finance <sup>1*</sup>	3
<b>Business - General</b>		
BGEN 242D	Intro to Int'l Business <sup>1*</sup>	3
BGEN 361	Principles of Business Law <sup>1</sup>	3
<b>Business - Management</b>		
BMGT 205	Prof Business Communication <sup>1*,2*</sup>	3
BMGT 322	Operations Management <sup>1</sup>	3
BMGT 335	Management and Organization <sup>2*</sup>	3
<b>Business - Management Information Systems</b>		
BMIS 211	Intro to Bus Decision Support <sup>1</sup>	3
BMIS 311	Management Information Systems <sup>3*</sup>	3
<b>Business - Marketing</b>		
BMKT 325	Principles of Marketing <sup>1*</sup>	3
<b>Chemistry</b>		
CHMY 121IN	Introduction to General Chemistry <sup>1</sup>	4
CHMY 123	Introduction to Organic Chemistry and Biochemistry <sup>2</sup>	4
CHMY 141	College Chemistry I <sup>1</sup>	4
CHMY 143	College Chemistry II <sup>2</sup>	4
CHMY 321	Organic Chemistry I <sup>1</sup>	4
CHMY 323	Organic Chemistry II <sup>2</sup>	4
<b>Coaching</b>		
COA 205	Introduction to Coaching <sup>4*</sup>	3

COA 395	Practicum:Coaching Application <sup>4*</sup>	1
COA 405	Advanced Concepts in Coaching <sup>4*</sup>	3
<b>College Studies</b>		
COLS 103	College Learning Strategies (Gallatin College Only) <sup>2</sup>	1
<b>Communications</b>		
COMX 111US	Introduction to Public Speaking (Formerly COM 110US) <sup>1,2</sup>	3
<b>Community Health</b>		
CHTH 205	Drugs and Society <sup>1*</sup>	3
CHTH 245	Physical Activity, Nutrition and Health in Aging <sup>1*</sup>	3
CHTH 317	Health Behavior Theories <sup>2*</sup>	3
CHTH 325	Leadership & Public Policies in Aging <sup>1*</sup>	3
CHTH 405	Caregiving & Aging Families <sup>2*</sup>	3
CHTH 435	Human Response To Stress <sup>1*,2*</sup>	3
<b>College of Letters and Science</b>		
CLS 201US	Knowledge and Community <sup>2*</sup>	3
<b>Computer Science</b>		
CS 145RA	Web Design <sup>2,2*</sup>	3
<b>Computer Science - Programming</b>		
CSCI 111	Programming with Java I <sup>2</sup>	4
CSCI 112	Programming with C I <sup>1</sup>	3
CSCI 132	Basic Data Structures and Algorithms <sup>1</sup>	4
CSCI 215CS	Social & Ethical Issues in CS <sup>1</sup>	3
CSCI 232	Data Structures and Algorithms <sup>2</sup>	4
CSCI 246	Discrete Structures <sup>1</sup>	3
CSCI 477	Simulation <sup>1</sup>	3
CSCI 491	Special Topics (Python!-Study abroad in Vienna) <sup>1</sup>	3
<b>Creative Writing</b>		
CRWR 240RA	Introduction to Creative Writing (Blended-Online & Onsite) <sup>1</sup>	3
<b>Earth Systems <sup>1</sup></b>		
ERTH 101IN	Earth System Sciences <sup>1</sup>	4
<b>Economics</b>		
ECNS 202	Principles of Macroeconomics <sup>1</sup>	3
ECNS 204IS	Microeconomics <sup>2</sup>	3
<b>Education</b>		
EDU 332	Lit and Arts in Context <sup>4</sup>	9
EDU 342	Managing the Learning Envir (Blended-Online & Onsite) <sup>4</sup>	3
EDU 370	Integrating Tech into Educ <sup>4*</sup>	2
EDU 397	Methods (K-8 Social Studies) <sup>4</sup>	3
EDU 397	Methods (K-8 Language Arts) <sup>4</sup>	3
EDU 397	Methods (K-8 Science; Blended-Online & Onsite) <sup>4</sup>	3
<b>Education, Curriculum and Instruction</b>		
EDCI 501	Educational Statistics I <sup>3*</sup>	3
EDCI 506	Applied Educational Research <sup>4*</sup>	3
EDCI 531	Contemporary Issues in Education <sup>4*</sup>	3
EDCI 557	Brain Science, Educational Research, and Teaching <sup>4*</sup>	3
EDCI 564	The Comprehensive Portfolio <sup>4*</sup>	3
<b>Education-Early Childhood</b>		

EDEC 491	Special Topics (Home Visiting Family & Child) <sup>1</sup>	3
EDEC 496	Early Childhood Advanced Practicum <sup>1</sup>	3-6
<b>Educational Leadership</b>		
EDLD 507	Foundations of Educational Leadership (Blended-Online & Onsite) <sup>4</sup>	3
EDLD 515	Planned Change (Blended-Online & Onsite) <sup>4</sup>	3
EDLD 555	School Finance (Blended-Online & Onsite) <sup>4</sup>	3
EDLD 565	K-12 Instructional Leadership (Blended-Online & Onsite) <sup>1</sup>	3
EDLD 620	The School Superintendent (Blended-Online & Onsite) <sup>4</sup>	3
EDLD 645	Personnel and Collective Bargaining in MT (Blended-Online & Onsite) <sup>1</sup>	3
EDLD 650	MT Finance & Facilities (Blended Online & Onsite) <sup>1</sup>	3
EDLD 655	MT Legal & Policy Studies (Blended-Online & Onsite) <sup>1</sup>	3
<b>Education - Special</b>		
EDSP 306	Exceptional Learners <sup>1</sup>	3
<b>Engineering - Electrical</b>		
EELE 203	Circuits II for Engineering <sup>1</sup>	4
EELE 261	Intro To Logic Circuits <sup>3*</sup>	4
<b>Engineering-Chemical</b>		
ECHM 321	Chemical Engineering Fluid Mechanics Operations <sup>2</sup>	3
<b>Engineering - General</b>		
EGEN 201	Engineering Mechanics--Statics <sup>1,1*</sup>	3
EGEN 202	Engineering Mechanics: Dynamics <sup>1,1*</sup>	3
EGEN 203	Applied Mechanics <sup>1</sup>	3
EGEN 205	Mechanics of Materials <sup>2,2*</sup>	3
EGEN 208	Applied Strength of Materials <sup>2</sup>	3
EGEN 310R	Multidisciplinary Engineering Design <sup>1</sup>	3
EGEN 330	Business Fundamentals for Technical Professionals <sup>1</sup>	3
EGEN 335	Fluid Mechanics <sup>2*</sup>	3
EGEN 350	Applied Engineering Data Analysis <sup>1</sup>	2
<b>Engineering-Industrial</b>		
EIND 422	Introduction to Simulation <sup>1</sup>	3
<b>Engineering - Mechanical</b>		
EMEC 403	CAE IV--Design Integration <sup>1</sup>	3
<b>Family and Consumer Science</b>		
FCS 101IS	Indiv and Fam Dev: Lifespan <sup>1*</sup>	3
FCS 219	Apparel Construction (Blended-Online & Onsite) <sup>2</sup>	3
FCS 261	Adult Development and Aging <sup>1*</sup>	3
FCS 263	Relationships and Fam Systems <sup>1*</sup>	3
FCS 371	Research Methods in HHF <sup>4*</sup>	3
FCS 461	Principles Wellbeing in Aging <sup>2*</sup>	3
FCS 465R	Family Law & Public Policy <sup>1*</sup>	3
<b>Fish and Wildlife Science and Management</b>		
WILD 429	Yellowstone Wildlife Habitat Ecology <sup>4</sup>	2
<b>Film</b>		
FILM 101IH	Understanding Film and Media <sup>1,2</sup>	3

FILM 481	Advanced Studies in Film (Quentin Tarantino-The Cinema of Cool) <sup>2</sup>	3
<b>Geography</b>		
GPHY 141D	Geography of World Regions <sup>1</sup>	3
GPHY 284	Intro to GIS Science & Cartog <sup>1</sup>	3
<b>Geology</b>		
GEO 111IN	Dinosaurs <sup>1</sup>	3
GEO 429R	Field Geology <sup>1</sup>	6
<b>German</b>		
GRMN 101	Elementary German I <sup>1</sup>	3
GRMN 102D	Elementary German II <sup>2</sup>	3
GRMN 440IH	German Cultural Studies <sup>1*</sup>	3
<b>Graphic Design</b>		
GDSN 360	Yellowstone Digital (Field Trips Required-Actual Dates TBD) <sup>4</sup>	3
GDSN 361	Teton Digital (Field Trips Required-Actual Dates TBD) <sup>4</sup>	3
GDSN 378	Guerrilla Advertising <sup>4</sup>	5
<b>Health</b>		
HTH 220	Human Sexuality <sup>1*</sup>	3
HTH 455	The Ethic of Care <sup>4</sup>	3
<b>History - American</b>		
HSTA 102IH	American History II <sup>1*</sup>	4
HSTA 322	Am History: WWII to Present <sup>1*</sup>	3
<b>History - World</b>		
HSTR 101IH	Western Civilization I <sup>1*</sup>	4
HSTR 436	Armed Conflict Mod Latin Amer <sup>1*</sup>	3
<b>Horticulture and Landscape Design</b>		
HORT 345	Market Gardening <sup>1</sup>	3
HORT 491	Special Topics (Nat'l/Internat'l Study-Blended Online & Onsite) <sup>1</sup>	3
<b>Human Development - Counseling</b>		
HDCO 502	Cnsl Ethic Prof Orient (Blended-Online & Onsite) <sup>2</sup>	2
HDCO 506	School Counsel Programs (Blended-Online & Onsite) <sup>2</sup>	3
HDCO 508	Counseling Theories I (Blended-Online & Onsite) <sup>2</sup>	3
HDCO 524	Consultation and Crisis: Theory and Practice (Blended-Online & Onsite) <sup>1</sup>	3
HDCO 526	Adventure Counseling (Blended-Online & Onsite) <sup>2</sup>	3
HDCO 551	Appraisal (Blended Online & Onsite) <sup>2</sup>	3
HDCO 558	Career Counseling (Blended-Online & Onsite) <sup>2</sup>	2
<b>Immunology Infectious Diseases</b>		
IMID 521	Laboratory Rotation I <sup>3</sup>	2
IMID 522	Laboratory Rotation II <sup>3</sup>	2
IMID 523	Laboratory Rotation III <sup>3</sup>	2
<b>Kinesiology</b>		
KIN 221	Hlth Anatomy & Physiology <sup>3*</sup>	3
KIN 325R	Biomechanics <sup>1</sup>	4
KIN 491	Special Topics (Adapt Anaerobic Exercise) <sup>1</sup>	3
KIN 491	Special Topics (App Sports Biomechanics) <sup>1</sup>	3
<b>Land Resources &amp; Environmental Sciences</b>		
LRES 536	Ecology of Invasive Plants II <sup>4*</sup>	1



LRES 562	Land Rehab Field Problem <sup>4</sup>	2
<b>Liberal Studies</b>		
LS 101US	Ways of Knowing <sup>1*,2*</sup>	3
LS 301	Integrative Seminar (The Science of Comedy) <sup>1*</sup>	3
<b>Linguistics</b>		
LING 210IH	Intro to Language/Linguistics <sup>1*</sup>	3
<b>Literature</b>		
LIT 110IH	Intro to Lit: Explorations in Literature <sup>2</sup>	3
LIT 169IH	Literature as Popular Culture <sup>2*</sup>	3
LIT 202CS	The Environmental Imagination <sup>1*</sup>	3
LIT 285D	Mythologies <sup>1*</sup>	3
LIT 335	Women and Literature <sup>2*</sup>	3
LIT 382	Literature for Children and Adolescents <sup>1*</sup>	3
<b>Mathematics</b>		
M 096	Survey of Algebra <sup>1,2</sup>	4
M 105Q	Contemporary Mathematics (formerly M 145Q, Math for Liberal Arts) <sup>1,2,2*</sup>	3
M 121Q	College Algebra <sup>1,1*,2,2*</sup>	3
M 133Q	Geometry & Measure K-8 Teachers <sup>1</sup>	3
M 151Q	Precalculus <sup>1,1*,2</sup>	4
M 161Q	Survey of Calculus <sup>1,1*,2,2*</sup>	4
M 171Q	Calculus I <sup>1,2</sup>	4
M 172Q	Calculus II <sup>1,2</sup>	4
M 221	Introduction to Linear Algebra <sup>1,2</sup>	3
M 273Q	Multivariable Calculus <sup>1,2</sup>	4
M 274	Introduction to Differential Equation <sup>1,2</sup>	4
M 419	Ratio and Proportion in School Mathematics <sup>4</sup>	3
M 518	Statistics For Teaching <sup>4*</sup>	3
M 519	Ratio and Proportion in School Mathematics <sup>4</sup>	3
M 524	Linear Algebra for Teaching <sup>4</sup>	3
<b>Media Arts</b>		
MART 145RA	Web Design <sup>2,2*</sup>	3
<b>Microbiology and Immunology</b>		
MB 541	Microbial Genetics <sup>4*</sup>	3
<b>Modern Languages</b>		
ML 100IH	Intro to World Cultures <sup>1*</sup>	3
ML 344	Instructional Perspectives <sup>1,2</sup>	1
<b>Music -Education</b>		
MUSE 530	Music, Society, Education <sup>1*</sup>	3
<b>Music - General</b>		
MUSI 101IA	Enjoyment of Music <sup>1*,2*</sup>	3
MUSI 106	Music Theory II <sup>1</sup>	3
MUSI 136	Keyboard Skills II <sup>1</sup>	1
MUSI 141	Aural Perception II <sup>1</sup>	1
MUSI 203IA	American Popular Music <sup>1*,2*</sup>	3
MUSI 307IA	World Music <sup>1*</sup>	3
MUSI 348	Ensemble <sup>3</sup>	1
MUSI 495	Applied Music IV <sup>4</sup>	1-2
MUSI 504	Studies in Hist and Analysis <sup>1</sup>	3
<b>Music-Technology</b>		
MUST 544	Comp App Mus Ed (Contact department for actual dates) <sup>3</sup>	3

<b>Native American Studies</b>		
NASX 105D	Intro Native Amer Studies <sup>1*2</sup>	3
NASX 232D	MT Indians: Cultures, Histories, Current Issues <sup>2*</sup>	3
NASX 491	Special Topics (Activism & Indigeneity) <sup>3*</sup>	3
NASX 591	Special Topics (Activism & Indigeneity) <sup>3*</sup>	3
<b>Nursing</b>		
NRSG 115	Nursing as a Profession (Blended-Online & Onsite) <sup>1</sup>	2
NRSG 220	Foundatns Ethcl Nrsng Recitatn <sup>1*,2*</sup>	2
NRSG 225	Fndtns Plng Prvdng Clin Nrs Cr <sup>2</sup>	4
NRSG 238	Hlth Assmnt Across Lifespan <sup>1</sup>	4
NRSG 258	Principles of Pathophysiology <sup>3,3*</sup>	3
NRSG 336	Nursing Pharmacotherapeutics <sup>3</sup>	3
NRSG 341	Psychosocial Nursing Concepts <sup>1</sup>	3
NRSG 469	Cultural Applications Apps in Nursing: The (Specific Culture) Experience <sup>1</sup>	0-2
NRSG 477	Pop Based Nursing Care in Comm <sup>1,3</sup>	6
NRSG 479	Population Health & Leadership <sup>3*</sup>	6
NRSG 487	Nursing Ldrshp/Mgmnt Dvlpmt <sup>3</sup>	6
NRSG 503	Curriculum Development <sup>1*</sup>	3
NRSG 609	Adv Practice Nrsng Ldrshp (Blended-Online & Onsite) <sup>3</sup>	2
NRSG 620	Adv Pharm II (Blended-Online & Onsite) <sup>3</sup>	3
NRSG 621	Advanced Clinical I-FI (Blended-Online & Onsite) <sup>3</sup>	6
NRSG 623	Advanced Clinical III Primary Care for Aging Families (Blended-Online & Onsite) <sup>3</sup>	6
NRSG 630	Adv Psychopharm II (Blended-Online & Onsite) <sup>3</sup>	3
NRSG 631	Advanced Clinical I – Psych/Mental Health (Blended-Online & Onsite) <sup>3</sup>	6
NRSG 633	Advanced Clinical III, Psych/Mental Health (Blended-Online & Onsite) <sup>3</sup>	6
<b>Nutrition</b>		
NUTR 221CS	Basic Human Nutrition <sup>3*</sup>	3
NUTR 351	Nutrition and Society <sup>3*</sup>	3
NUTR 491	Special Topics (Mindful Eating) <sup>3*</sup>	3
<b>Philosophy</b>		
PHL 101IH	Intro Phil:Reason and Reality <sup>1*</sup>	3
PHL 103D	Philosophy and Popular Culture <sup>1*</sup>	3
PHL 110IH	Intro Ethics:Good and Evil <sup>1*,2*</sup>	3
PHL 322	Philosophy & Envirnmntl Ethics <sup>1*</sup>	3
PHL 327	Aesthetics and the Arts <sup>2*</sup>	3
<b>Photography</b>		
PHOT 113RA	Understanding Photography <sup>1</sup>	3
PHOT 154IA	Exploring Digital Photography <sup>1*</sup>	3
PHOT 494	Seminar/Workshop (Small Town Documentary) <sup>1</sup>	3
<b>Physics</b>		
PHSX 205	College Physics I <sup>1</sup>	4
PHSX 207	College Physics II <sup>2</sup>	4
PHSX 220	Physics I (w/ calculus) <sup>1</sup>	4
PHSX 222	Physics II (w/ calculus) <sup>2</sup>	4
PHSX 224	Physics III <sup>1</sup>	4
PHSX 401	Physics by Inquiry I <sup>4</sup>	3



PHSX 403	Physics by Inquiry III <sup>4</sup>	3
<b>Physics - Astronomy</b>		
ASTR 110IN	Introduction to Astronomy: Mysteries of the Sky <sup>2</sup>	3
<b>Political Science</b>		
PSCI 210IS	Introduction to American Government <sup>1*</sup>	3
PSCI 439	International Human Rights <sup>2*</sup>	3
PSCI 454	Cinema and Political Theory <sup>1</sup>	3
PSCI 530	Tools of Public Administration <sup>1*</sup>	3
<b>Psychology</b>		
PSYX 100IS	Intro to Psychology <sup>1</sup>	4
PSYX 223	Research Design and Analysis I <sup>1</sup>	4
PSYX 225	Research Design and Analysis II <sup>1</sup>	3
PSYX 235D	Contemp Issues in Human Sexual <sup>3</sup>	3
PSYX 263CS	The Psychology of Film <sup>1</sup>	3
PSYX 333	Psychology of Aging <sup>1</sup>	3
PSYX 375	Behavior Modification <sup>1*,2*</sup>	3
PSYX 380	Memory & Cognition <sup>1*</sup>	3
PSYX 462	Psychology of Prejudice <sup>1*</sup>	3
PSYX 494	Seminar (Drugs & Behavior) <sup>1*</sup>	3
<b>Religious Studies</b>		
RLST 100D	Intro to the Study of Religion <sup>2*</sup>	3
RLST 203D	Buddhist Traditions <sup>1*</sup>	3
<b>Sociology</b>		
SOCI 101IS	Introduction to Sociology <sup>1*,2*</sup>	3
SOCI 150D	Social Difference <sup>1*</sup>	3
SOCI 221IS	Criminal Justice System <sup>1*</sup>	3
SOCI 318R	Sociological Research Methods <sup>1*</sup>	3
SOCI 325	Social Stratification <sup>1*</sup>	3
SOCI 326	Sociology of Gender <sup>1*</sup>	3
<b>Spanish</b>		
SPNS 101	Elementary Spanish I <sup>1</sup>	3
SPNS 102D	Elementary Spanish II <sup>2</sup>	3
SPNS 335IH	Travel in Latin Am Lit & Film <sup>1</sup>	3
<b>Statistics</b>		
STAT 216Q	Introduction to Statistics <sup>1,1*,2,2*</sup>	3
STAT 217Q	Intermediate Statistical Concepts <sup>1,2,2*</sup>	3
STAT 332	Statistics for Scientists and Engineers <sup>2</sup>	3
<b>Surveying</b>		
SRVY 230	Intro to Surveying for Engineers <sup>1</sup>	3
<b>Sustainable Food and Bioenergy Systems</b>		
SFBS 296	Practicum: Towne's Harvest <sup>3</sup>	3
SFBS 445R	Culinary Marketing: Farm/Table (Co-Convened with SFBS 541) <sup>2</sup>	3
SFBS 541	Culinary Marketing: Farm to Table (Co-Convened with SFBS 445R) <sup>2</sup>	3
<b>Technology Education</b>		
TE 250CS	Technology and Society <sup>3*</sup>	3
<b>University Studies</b>		
COMX 111US	Introduction to Public Speaking <sup>1,2</sup>	3
<b>Welding Technology</b>		
WLDG 281	Weld Testing Certification Lab (Gallatin College Only) <sup>2</sup>	2
<b>Women's and Gender Studies</b>		
WGSS 201IH	Intro to Feminist Theories <sup>1*</sup>	3

**Writing**

WRIT 100	Composing Mindfully (Blended-Online & Onsite) <sup>3</sup>	3
WRIT 101W	College Writing I <sup>1,1*,2,2*</sup>	3
WRIT 201	College Writing II <sup>1,2</sup>	3
WRIT 326	Advanced Writing <sup>1*</sup>	3
WRIT 374	Magazine Editing <sup>3*</sup>	3

<sup>1</sup> Offered First 6-Week Session<sup>2</sup> Offered Second 6-Week Session<sup>3</sup> Offered Full 12-Week Session<sup>4</sup> Intersession-Non-Standard Term Dates

\* Internet/Online

Please also see additional course offerings in the following sections:

- Summer Master's Degree Programs (p. 44)
- Non-Degree and Certificate Programs (p. 46)

**Uniquely Montana****A Selection of Unique Academic Credit Courses Offered at MSU This Summer**

A wide variety of special courses is available at MSU during Summer Session 2017, and we've highlighted a few of them here. Many of these courses are offered only during the summer and take advantage of southwestern Montana's natural environment; others provide professional development opportunities for teachers and coaches; still others offer unique experiences in archaeology. There's a little something for everyone—including selections in art, music, languages, theatre, geology, ecology, and gardening.

**Course registration will take place through the MSU Registrar or the School of Art. The method of registration is noted with each course description.** To enroll in courses through the Registrar or the School of Art, students must be admitted to MSU; Extended University courses do not carry this requirement.

*Please note:* This is not a complete listing of Summer Session courses. For all Registrar courses, days of offering, times and locations, refer to the Summer Session Schedule of Classes via the Web; information regarding registration can be found in the How to Register for Classes (p. 5) section.

For a listing of Extended University offerings and information on how to register, visit the Extended University website at <http://eu.montana.edu/ContinuingEd>.

**Accounting****Enroll through the Registrar**

ACTG 524	International Accounting <sup>*</sup>	3
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\* Non-standard Term Dates. Contact the Jake Jabs College of Business & Entrepreneurship (<http://www.montana.edu/business>) for details.

**Activities - General**

Try an activity course this summer and earn academic credit for it! All courses will run 6 weeks, from May 15-June 23 or June 26-August 4, and are worth 1 credit each.

**Enroll through the Registrar**

ACT 110	Beginning Weight Training (First & Second Six Week Session) <sup>2</sup>	1
ACT 129	Circuit Training <sup>1</sup>	1
ACT 150	Beginning Yoga <sup>2</sup>	1
ACT 169	Beginning Tennis <sup>1</sup>	1

For more information, contact Abbey Keene, Recreational Sports and Fitness, 994-6278 or [abbey.keene@montana.edu](mailto:abbey.keene@montana.edu).

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

## Animal and Range Sciences

### Enroll through the Registrar

ARNR 529/ WILD 429	Yellowstone Wildlife Habitat Ecology <sup>*</sup>	2
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<sup>\*</sup> This course has non-traditional term dates:

- Required Classroom Time: 6/12-6/15/17, 6:00-9:00 pm, ABB 138
- Required Field Trips: 6/16-6/17/17, 7:30 am-7:30pm

## Art - Art History

### Enroll through the Registrar

ARTH 201IA	Art of World Civilization II <sup>2</sup>	4
ARTH 310	Ancient Art Mesoamerica <sup>2</sup>	3
ARTH 435	Art in the United States <sup>1</sup>	3

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

## Biology - Ecological

### Enroll through the Registrar

BIOE 416	Alpine Ecology (Second Six Week Session) <sup>2*</sup>	3
BIOE 421	Yellowstone Wildlife Ecology (First Six Week Session) <sup>1</sup>	3

<sup>1</sup> First Six Week Session

<sup>2</sup> Second Six Week Session

<sup>\*</sup> Required field trip: Contact the Ecology (<http://www.montana.edu/ecology>) department for specific dates.

## Coaching

Contact Instructor for more information: [cstewart@montana.edu](mailto:cstewart@montana.edu).

### Enroll through the Registrar

COA 205	Introduction to Coaching <sup>4*</sup>	3
COA 395	Practicum:Coaching Application <sup>4*</sup>	1
COA 405	Advanced Concepts in Coaching <sup>4*</sup>	3

<sup>4</sup> Non-standard term dates-5/8-7/21/17

<sup>\*</sup> Internet/Online

## Education

### Enroll through the Registrar

EDCI 540	American Indian Studies for Ed <sup>4*</sup>	3
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<sup>4</sup> Non-Standard term dates. Contact the Education (<http://www.montana.edu/wwwed>) department for exact dates.

<sup>\*</sup> Internet/Online

## Film

This course requires the consent of the instructor.

### Enroll through Registrar

FILM 481	Advanced Studies in Film (Quentin Tarantino-The Cinema of Cool) <sup>2</sup>	3
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<sup>2</sup> Second 6-Week Session

## Fish and Wildlife Science and Management

### Enroll through the Registrar

WILD 429/ ARNR 529	Yellowstone Wildlife Habitat Ecology <sup>*</sup>	2
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<sup>\*</sup> This course has non-traditional term dates, 6/12-6/17/17:

- 6/12-6/15/17 from 6:00-9:00 pm in ABB 138
- Required Field Trips-6/16-6/17/17 from 7:30 am-7:30 pm

## Geology

### Enroll through the Registrar

GEO 111IN	Dinosaurs <sup>1</sup>	3
GEO 429R	Field Geology <sup>1*</sup>	6

<sup>1</sup> First 6-Week Session

<sup>\*</sup> Refer to the Earth Sciences webpage (<http://www.montana.edu/earthsciences>) for more details.

## Graphic Design

These courses require the consent of the instructor.

### Enroll through the Registrar

GDSN 360	Yellowstone Digital <sup>*</sup>	3
GDSN 361	Teton Digital <sup>*</sup>	3
GDSN 378	Guerrilla Advertising <sup>*</sup>	5

<sup>\*</sup> Actual Term Dates:

- GDSN 360: 6/12-6/17/17
- GDSN 361: 7/10-7/15/17
- GDSN 378: 5/15-6/1/17

## Media Arts

*Note:* The lecture material for the summer offering is online. The laboratory may be done either in a supervised setting or online.

### Enroll through the Registrar

MART/CS 145RA	Web Design <sup>2,2*</sup>	3
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<sup>2</sup> Second 6-Week Session

<sup>\*</sup> Internet/Online

## Music - Education

*Enroll through the Registrar*

MUSE 530 Music, Society, Education (online) <sup>1\*</sup> 3

<sup>1</sup> First 6-Week Session

\* Internet/Online

## Music - General

*Enroll through the Registrar*

MUSI 348 Ensemble (Bozeman Community Concert Band) <sup>3</sup> 1

<sup>3</sup> Full 12-Week Session

## Philosophy

*Enroll through the Registrar*

PHL 101IH Intro Phil:Reason and Reality <sup>1\*</sup> 3

PHL 103D Philosophy and Popular Culture <sup>1\*</sup> 3

PHL 110IH Intro Ethics:Good and Evil <sup>1\*,2\*</sup> 3

PHL 322 Philosophy & Environmntl Ethics <sup>1\*</sup> 3

PHL 327 Aesthetics and the Arts <sup>2\*</sup> 3

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

\* Internet/Online

## Photography

This course requires the consent of the instructor.

*Enroll through the Registrar*

PHOT 494 Seminar/Workshop (Small Town Documentary) <sup>1</sup> 3

<sup>1</sup> First Six Week Session

## Political Science

*Enroll through the Registrar*

PSCI 210IS Introduction to American Government <sup>1\*</sup> 3

PSCI 439 International Human Rights <sup>2\*</sup> 3

PSCI 454 Cinema and Political Theory <sup>1</sup> 3

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

\* Internet/Online

## Psychology

*Enroll through the Registrar*

PSYX 263CS The Psychology of Film <sup>1</sup> 3

PSYX 375 Behavior Modification <sup>1\*,2\*</sup> 3

PSYX 380 Memory & Cognition <sup>1\*</sup> 3

PSYX 462 Psychology of Prejudice <sup>1\*</sup> 3

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

\* Internet/Online

## Spanish

*Enroll through the Registrar*

SPNS 101 Elementary Spanish I <sup>1\*</sup> 3

SPNS 102D Elementary Spanish II <sup>2</sup> 3

SPNS 335IH Travel in Latin Am Lit & Film <sup>1</sup> 3

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

\* Requires consent of instructor

## Summer 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/wwwcat/requirements/reqs4.html](http://www.montana.edu/wwwcat/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 catch-up opportunity for continuing students who need to progress toward or complete their core requirements.

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 Creative Experience Courses

The following courses offered for Summer Session 2017 are listed by core groups. For information regarding dates, times and location of offerings, refer to the Summer Class Schedule online. For course descriptions, go to [www.montana.edu/wwwcat/courses/courses2.html](http://www.montana.edu/wwwcat/courses/courses2.html).

*Please note:* New courses may have been added to this listing since the time of publishing. For updates, go to [www.montana.edu/summer/corecourses.html](http://www.montana.edu/summer/corecourses.html).

### US - University Seminar

CLS 201US Knowledge and Community <sup>2\*</sup> 3

COMX 111US Introduction to Public Speaking <sup>1,2</sup> 3

### W - College Writing

WRIT 101W	College Writing I <sup>1,1*,2,2*</sup>	3
<b>Q - Quantitative Reasoning</b>		
M 105Q	Contemporary Mathematics (formerly M 145Q, Math for Liberal Arts) <sup>1,2,2*</sup>	3
M 121Q	College Algebra <sup>1*,2*</sup>	3
M 151Q	Precalculus <sup>1,1*,2</sup>	4
M 161Q	Survey of Calculus <sup>1,1*,2,2*</sup>	4
M 171Q	Calculus I <sup>1,2</sup>	4
M 172Q	Calculus II <sup>1,2</sup>	4
M 273Q	Multivariable Calculus <sup>1,2</sup>	4
STAT 216Q	Introduction to Statistics (on campus or online) <sup>1,1*,2,2*</sup>	3
STAT 217Q	Intermediate Statistical Concepts <sup>1,2*</sup>	3
<b>D - Diversity</b>		
AMST 101D	Introduction to American Studies <sup>2*</sup>	3
ANTY 101D	Anthropology and the Human Experience <sup>2*</sup>	3
ANTY 242D	Contemporary Japan <sup>1*</sup>	3
BGEN 242D	Intro to Int'l Business <sup>1*</sup>	3
GPHY 141D	Geography of World Regions <sup>1*</sup>	3
GRMN 102D	Elementary German II <sup>2</sup>	3
LIT 285D	Mythologies <sup>1*</sup>	3
NASX 105D	Intro Native Amer Studies <sup>1*,2</sup>	3
NASX 232D	MT Indians: Cultures, Histories, Current Issues <sup>2*</sup>	3
PHL 103D	Philosophy and Popular Culture <sup>1*</sup>	3
PSYX 235D	Contemp Issues in Human Sexual <sup>3</sup>	3
RLST 100D	Intro to the Study of Religion <sup>2*</sup>	3
RLST 203D	Buddhist Traditions <sup>1*</sup>	3
SOCI 150D	Social Difference <sup>1*</sup>	3
SOCI 318R	Sociological Research Methods <sup>1*</sup>	3
SPNS 102D	Elementary Spanish II <sup>2</sup>	3
<b>CS - Contemporary Issues in Sciences</b>		
CSCI 215CS	Social & Ethical Issues in CS <sup>1</sup>	3
HSTR 205CS	The World Environment <sup>1*</sup>	3
LIT 202CS	The Environmental Imagination <sup>1*</sup>	3
NUTR 221CS	Basic Human Nutrition <sup>3*</sup>	3
PSYX 263CS	The Psychology of Film <sup>1</sup>	3
TE 250CS	Technology and Society <sup>4*</sup>	3
<b>IA - Arts Inquiry or RA - Arts Research</b>		
AMST 202RA	The Arts in America <sup>1*</sup>	3
ARCH 121IA	Introduction to Design <sup>1</sup>	3
ARCH 151RA	Design Fundamentals I <sup>1</sup>	4
ARCH 152IA	Design Fundamentals II <sup>2</sup>	4
ARTH 201IA	Art of World Civilization II <sup>2</sup>	4
ARTZ 105RA	Visual Language - Drawing <sup>1</sup>	3
ARTZ 109RA	Visual Language: Comprehensive Foundation <sup>2</sup>	4
ARTZ 110RA	Visual Language: Ideation and Creativity <sup>2</sup>	4
ARTZ 231RA	Ceramics I <sup>2</sup>	4
CRWR 240RA	Introduction to Creative Writing (Blended-Online & Onsite) <sup>1</sup>	3
CS 145RA	Web Design <sup>2,2*</sup>	3
MART 145RA	Web Design (on campus or online) <sup>2, 2*</sup>	3
MUSI 101IA	Enjoyment of Music <sup>1*,2*</sup>	3
MUSI 203IA	American Popular Music <sup>1*,2*</sup>	3

MUSI 307IA	World Music <sup>1*</sup>	3
PHOT 154IA	Exploring Digital Photography <sup>1*</sup>	3
<b>IH - Humanities Inquiry or RH - Humanities Research</b>		
FILM 101IH	Understanding Film and Media <sup>1</sup>	3
GRMN 440IH	German Cultural Studies <sup>1</sup>	3
HSTA 102IH	American History II <sup>1*</sup>	4
HSTR 101IH	Western Civilization I <sup>1*</sup>	4
LING 210IH	Intro to Language/Linguistics <sup>1*</sup>	3
LIT 110IH	Intro to Lit: Explorations in Literature <sup>2</sup>	3
LIT 169IH	Literature as Popular Culture <sup>2*</sup>	3
ML 100IH	Intro to World Cultures <sup>1*</sup>	3
PHL 101IH	Intro Phil:Reason and Reality <sup>1*</sup>	3
PHL 110IH	Intro Ethics:Good and Evil <sup>1*,2*</sup>	3
SPNS 335IH	Travel in Latin Am Lit & Film <sup>1</sup>	3
WGSS 201IH	Intro to Feminist Theories <sup>1*</sup>	3
<b>IN - Natural Science Inquiry or RN - Natural Science Research</b>		
ASTR 110IN	Introduction to Astronomy: Mysteries of the Sky <sup>2</sup>	3
CHMY 121IN	Introduction to General Chemistry <sup>1</sup>	4
ERTH 101IN	Earth System Sciences <sup>1</sup>	4
GEO 111IN	Dinosaurs <sup>1*</sup>	3
<b>IS - Social Science Inquiry or RS - Social Science Research</b>		
ECNS 204IS	Microeconomics <sup>2</sup>	3
FCS 101IS	Indiv and Fam Dev: Lifespan <sup>1*</sup>	3
PSCI 210IS	Introduction to American Government <sup>1*</sup>	3
PSYX 100IS	Intro to Psychology <sup>1</sup>	4
SOCI 101IS	Introduction to Sociology <sup>1*,2*</sup>	3
SOCI 221IS	Criminal Justice System <sup>1*</sup>	3
<b>R - Additional Research and Creative Experience Courses</b>		
AMST 401R	Seminar in American Studies <sup>1*</sup>	4
EGEN 310R	Multidisciplinary Engineering Design <sup>1</sup>	3
FCS 465R	Family Law & Public Policy <sup>1*</sup>	3
GEO 429R	Field Geology <sup>1</sup>	6
KIN 325R	Biomechanics	4
SFBS 445R	Culinary Marketing: Farm/Table <sup>2</sup>	3
SOCI 318R	Sociological Research Methods <sup>1*</sup>	3

<sup>1</sup> First 6-Week Session<sup>2</sup> Second 6-Week Session<sup>3</sup> Full 12-Week Session<sup>4</sup> Intersession: Please, contact department for exact dates.

\* Internet/Online

## Core Courses Offered Online This Summer

AMST 101D	Introduction to American Studies <sup>2</sup>	3
AMST 202RA	The Arts in America <sup>1</sup>	3
AMST 401R	Seminar in American Studies <sup>1</sup>	4
ANTY 101D	Anthropology and the Human Experience <sup>2</sup>	3
ANTY 242D	Contemporary Japan <sup>1</sup>	3
BGEN 242D	Intro to Int'l Business <sup>1</sup>	3
CLS 201US	Knowledge and Community <sup>2</sup>	3
CS 145RA	Web Design	3
FCS 101IS	Indiv and Fam Dev: Lifespan <sup>1</sup>	3
FCS 465R	Family Law & Public Policy <sup>1</sup>	3
GRMN 440IH	German Cultural Studies <sup>1</sup>	3

HSTA 102IH	American History II <sup>1</sup>	4
HSTR 101IH	Western Civilization I <sup>1</sup>	4
HSTR 205CS	The World Environment <sup>1</sup>	3
LING 210IH	Intro to Language/Linguistics <sup>1</sup>	3
LIT 169IH	Literature as Popular Culture <sup>2</sup>	3
LIT 202CS	The Environmental Imagination <sup>1</sup>	3
LIT 285D	Mythologies <sup>1</sup>	3
LS 101US	Ways of Knowing (The Downside of Happiness) <sup>2</sup>	3
LS 101US	Ways of Knowing (Thinking for a New Future) <sup>1</sup>	3
M 105Q	Contemporary Mathematics (formerly M 145Q, Math for Liberal Arts) <sup>2</sup>	3
M 121Q	College Algebra <sup>1, 2</sup>	3
M 151Q	Precalculus <sup>1</sup>	4
M 161Q	Survey of Calculus <sup>1, 2</sup>	4
MART 145RA	Web Design <sup>2</sup>	3
ML 100IH	Intro to World Cultures <sup>1</sup>	3
MUSI 101IA	Enjoyment of Music <sup>1, 2</sup>	3
MUSI 203IA	American Popular Music <sup>1, 2</sup>	3
MUSI 307IA	World Music <sup>1</sup>	3
NASX 105D	Intro Native Amer Studies <sup>1</sup>	3
NASX 232D	MT Indians: Cultures, Histories, Current Issues <sup>2</sup>	3
NUTR 221CS	Basic Human Nutrition <sup>3</sup>	3
PHL 101IH	Intro Phil:Reason and Reality <sup>1</sup>	3
PHL 103D	Philosophy and Popular Culture <sup>1</sup>	3
PHL 110IH	Intro Ethics:Good and Evil <sup>1, 2</sup>	3
PHOT 154IA	Exploring Digital Photography <sup>1</sup>	3
PSCI 210IS	Introduction to American Government <sup>1</sup>	3
RLST 100D	Intro to the Study of Religion <sup>2</sup>	3
RLST 203D	Buddhist Traditions <sup>1</sup>	3
SOCI 101IS	Introduction to Sociology <sup>1, 2</sup>	3
SOCI 150D	Social Difference <sup>1</sup>	3
SOCI 221IS	Criminal Justice System <sup>1</sup>	3
SOCI 318R	Sociological Research Methods <sup>1</sup>	3
STAT 216Q	Introduction to Statistics <sup>1, 2</sup>	3
STAT 217Q	Intermediate Statistical Concepts <sup>2</sup>	3
TE 250CS	Technology and Society <sup>3</sup>	3
WGSS 201IH	Intro to Feminist Theories <sup>1</sup>	3
WRIT 101W	College Writing I <sup>1, 2</sup>	3

## 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. 31) reflect the summer class schedule as of February 2017. 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 2017 Summer Class Schedule (p. 31)

- **For Extended University courses:** Go to <http://eu.montana.edu/online>

## 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 course-related 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. 9) 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. 5) for more information. Online courses and on-campus courses are listed together, along with Course Reference Numbers (CRN), in the Summer Class Schedule (p. 31).

### Extended University Courses

If you would like to register for a course offered through Extended University, please visit Extended University'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 Extended University courses.

### Fees

#### Registrar Courses

Fees for online courses are the same as those charged for on-campus courses. Please refer the summer fee schedule (p. 14).

### Extended University Courses

Fees for online courses vary; refer to the Extended University Tuition, Fees and Financial Aid page, <http://eu.montana.edu/online/cost>, for specific courses and fees.

### Getting Started

Prior to the first day of class, Extended University 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](http://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.

### 2017 Summer Session Dates

First 6-Week Session	May 15 - June 23
Second 6-Week Session	June 26 - August 4
Full 12-Week Session	May 15 - August 4
Intersession	Dates vary; see individual courses

### Undergraduate Courses

Some of these courses may require the consent of the instructor.

#### Enroll through the Registrar

AMST 101D	Introduction to American Studies <sup>2</sup>	3
AMST 202RA	The Arts in America <sup>1</sup>	3
ANSC 322	Principles of Animal Breeding and Genetics <sup>3</sup>	3

ANTY 101D	Anthropology and the Human Experience <sup>2</sup>	3
ANTY 242D	Contemporary Japan <sup>1</sup>	3
ARCH 431	Sustainability in Architecture <sup>3</sup>	3
BFIN 322	Business Finance <sup>1</sup>	3
BGEN 242D	Intro to Int'l Business <sup>1</sup>	3
BMGT 205	Prof Business Communication <sup>1,2</sup>	3
BMGT 335	Management and Organization <sup>2</sup>	3
BMIS 311	Management Information Systems <sup>3</sup>	3
BMKT 325	Principles of Marketing <sup>1</sup>	3
CHTH 205	Drugs and Society <sup>1</sup>	3
CHTH 245	Physical Activity, Nutrition and Health in Aging <sup>1</sup>	3
CHTH 317	Health Behavior Theories <sup>2</sup>	3
CHTH 325	Leadership & Public Policies in Aging <sup>1</sup>	3
CHTH 405	Caregiving & Aging Families <sup>2</sup>	3
CHTH 435	Human Response To Stress <sup>1,2</sup>	3
CLS 201US	Knowledge and Community <sup>2</sup>	3
COA 205	Introduction to Coaching <sup>4</sup>	3
COA 395	Practicum:Coaching Application <sup>4</sup>	1
COA 405	Advanced Concepts in Coaching <sup>4</sup>	3
CS/MART 145RA	Web Design <sup>2</sup>	3
EDU 370	Integrating Tech into Educ <sup>4</sup>	2
EELE 261	Intro To Logic Circuits <sup>3</sup>	4
EGEN 201	Engineering Mechanics--Statics <sup>1</sup>	3
EGEN 202	Engineering Mechanics: Dynamics <sup>1</sup>	3
EGEN 205	Mechanics of Materials <sup>2</sup>	3
EGEN 335	Fluid Mechanics <sup>2</sup>	3
FCS 101IS	Indiv and Fam Dev: Lifespan <sup>1</sup>	3
FCS 261	Adult Development and Aging <sup>1</sup>	3
FCS 263	Relationships and Fam Systems <sup>1</sup>	3
FCS 371	Research Methods in HHd <sup>4</sup>	3
FCS 461	Principles Wellbeing in Aging <sup>2</sup>	3
FCS 465R	Family Law & Public Policy <sup>1</sup>	3
GRMN 440IH	German Cultural Studies <sup>1</sup>	3
HSTA 102IH	American History II <sup>1</sup>	4
HSTA 322	Am History: WWII to Present <sup>1</sup>	3
HSTR 101IH	Western Civilization I <sup>1</sup>	4
HSTR 436	Armed Conflict Mod Latin Amer <sup>1</sup>	3
HTH 220	Human Sexuality <sup>1</sup>	3
KIN 221	Hlth Anatomy & Physiology <sup>4</sup>	3
LING 210IH	Intro to Language/Linguistics <sup>1</sup>	3
LIT 169IH	Literature as Popular Culture <sup>2</sup>	3
LIT 202CS	The Environmental Imagination <sup>1</sup>	3
LIT 285D	Mythologies <sup>1</sup>	3
LIT 335	Women and Literature <sup>2</sup>	3
LIT 382	Literature for Children and Adolescents <sup>1</sup>	3
LS 101US	Ways of Knowing <sup>1,2</sup>	3
LS 301	Integrative Seminar <sup>1</sup>	3
M 105Q	Contemporary Mathematics (formerly M 145Q, Math for Liberal Arts) <sup>2</sup>	3
M 121Q	College Algebra <sup>1,2</sup>	3
M 151Q	Precalculus <sup>1</sup>	4
M 161Q	Survey of Calculus <sup>1,2</sup>	4
MART/CS 145RA	Web Design <sup>2</sup>	3



ML 100IH	Intro to World Cultures <sup>1</sup>	3
MUSI 101IA	Enjoyment of Music <sup>1,2</sup>	3
MUSI 203IA	American Popular Music <sup>1,2</sup>	3
MUSI 307IA	World Music <sup>1</sup>	3
NASX 105D	Intro Native Amer Studies <sup>1</sup>	3
NASX 232D	MT Indians: Cultures, Histories, Current Issues <sup>2</sup>	3
NASX 491	Special Topics (Activism & Indegeneity) <sup>3</sup>	3
NRSG 220	Foundatns Ethcl Nrsng Recitatn <sup>1</sup>	2
NRSG 258	Principles of Pathophysiology <sup>3</sup>	3
NUTR 221CS	Basic Human Nutrition <sup>3</sup>	3
NUTR 351	Nutrition and Society <sup>3</sup>	3
NUTR 491	Special Topics (Mindful Eating) <sup>3</sup>	3
PHL 101IH	Intro Phil:Reason and Reality <sup>1</sup>	3
PHL 103D	Philosophy and Popular Culture <sup>1</sup>	3
PHL 110IH	Intro Ethics:Good and Evil <sup>1,2</sup>	3
PHL 322	Philosophy & Environmntl Ethics <sup>1</sup>	3
PHL 327	Aesthetics and the Arts <sup>2</sup>	3
PHOT 154IA	Exploring Digital Photography <sup>1</sup>	3
PHSX 491	Special Topics (Conceptual Physics) <sup>4</sup>	3
PSCI 210IS	Introduction to American Government <sup>1</sup>	3
PSCI 439	International Human Rights <sup>2</sup>	3
PSYX 375	Behavior Modification <sup>1,2</sup>	3
PSYX 380	Memory & Cognition <sup>1</sup>	3
PSYX 462	Psychology of Prejudice <sup>1</sup>	3
PSYX 494	Seminar (Drugs & Behavior) <sup>1</sup>	3
RLST 100D	Intro to the Study of Religion <sup>2</sup>	3
RLST 203D	Buddhist Traditions <sup>1</sup>	3
SOCI 101IS	Introduction to Sociology <sup>1,2</sup>	3
SOCI 150D	Social Difference <sup>1</sup>	3
SOCI 221IS	Criminal Justice System <sup>1</sup>	3
SOCI 318R	Sociological Research Methods <sup>1</sup>	3
SOCI 325	Social Stratification <sup>1</sup>	3
SOCI 326	Sociology of Gender <sup>1</sup>	3
STAT 216Q	Introduction to Statistics <sup>1,2</sup>	3
STAT 217Q	Intermediate Statistical Concepts <sup>2</sup>	3
TE 250CS	Technology and Society <sup>3</sup>	3
WGSS 201IH	Intro to Feminist Theories <sup>1</sup>	3
WRIT 101W	College Writing I <sup>1,2</sup>	3
WRIT 326	Advanced Writing <sup>1</sup>	3
WRIT 374	Magazine Editing <sup>3</sup>	3

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

<sup>3</sup> Full 12-Week Session

<sup>4</sup> Intersession/Non-Standard Term Dates

Course schedule available at [https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW\\_SelSchClass](https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW_SelSchClass) (select Term, Subject, and Search Class)

## Nursing - Undergraduate and Graduate Courses

### Summer 2017 Online Courses

Some of these courses require the consent of the instructor.

### Enroll through the Registrar

NRSG 220	Foundatns Ethcl Nrsng Recitatn <sup>1</sup>	2
NRSG 258	Principles of Pathophysiology <sup>3</sup>	3
NRSG 479	Population Health & Leadership <sup>3</sup>	6
NRSG 503	Curriculum Development <sup>1</sup>	3
NRSG 519	<sup>3</sup>	1

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

<sup>3</sup> Full 12-Week Session

Course descriptions available at <http://www.montana.edu/wwwcat/courses/nrsg.html>

Course schedule available at [https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW\\_SelSchClass](https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW_SelSchClass) (select Term, "NRSG" for Subject, and Search Class)

## Education - Graduate Courses

### Summer 2017 Courses

#### Enroll through the Registrar

EDCI 501	Educational Statistics I <sup>3</sup>	3
EDCI 506	Applied Educational Research <sup>4</sup>	3
EDCI 531	Contemporary Issues in Education <sup>4</sup>	3

<sup>3</sup> Full 12-Week Session

<sup>4</sup> Intersession 6/12-8/4/17

Course descriptions available at <http://catalog.montana.edu/coursedescriptions/edci/>

Course schedule available at [https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW\\_SelSchClass](https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW_SelSchClass) (select Term, "EDCI" or "EDLD" for Subject, and Search Class)

## Summer Science and Mathematics Courses for Pre-Med

Summer Session 2017 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 two six-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.

### Chemistry

CHMY 141	College Chemistry I <sup>1</sup>	4
CHMY 143	College Chemistry II <sup>2</sup>	4
CHMY 321	Organic Chemistry I <sup>1</sup>	4
CHMY 323	Organic Chemistry II <sup>2</sup>	4

### Physics

PHSX 205	College Physics I <sup>1</sup>	4
PHSX 207	College Physics II <sup>2</sup>	4

### Mathematics

M 121Q	College Algebra	3
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M 161Q	Survey of Calculus <sup>1, 2</sup>	4
<b>Statistics</b>		
STAT 216Q	Introduction to Statistics <sup>1, 2</sup>	3
<b>Biology</b>		
BIOH 201	Human Anatomy and Physiology I <sup>3</sup>	5

<sup>1</sup> First 6-Week Session, May 15-June 23

<sup>2</sup> Second 6-Week Session, June 26-August 4

<sup>3</sup> Full 12-Week Session, May 15-August 4

Please refer to the Summer Class Schedule at [www.montana.edu](http://www.montana.edu) (MyInfo) for more detailed information regarding course reference numbers (CRN), class locations and instructors.

## 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 6-week session of Summer.

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

## Admission to MSU

Admission to MSU is required and must be completed prior to registration for the Summer Science and Mathematics Courses.

### New Students

Students not previously admitted to MSU must apply for admission to the University.

### Undergraduates

Undergraduate students should apply for admission by following the steps below:

- Complete the MSU Application for Admission available online at [www.montana.edu/wwwcat/appopts.html](http://www.montana.edu/wwwcat/appopts.html)  
OR
- Complete a paper application (available from the MSU Admissions Office: (406) 994-2452 or [admissions@montana.edu](mailto:admissions@montana.edu))
- Submit the application along with the application fee (\$36 online or \$30 paper)
- Submit record of immunizations and Tuberculosis (TB) screening form to the Student Health Service (for more information see Applying for Admission (p. 9))

### Post-Baccalaureates

Students who have completed their bachelor's degrees should apply for admission as non-degree graduate students by following the steps below:

- Complete the Application for Graduate Admission (available online via the Graduate School Web page at [www.montana.edu/gradschool](http://www.montana.edu/gradschool))
- Submit completed form to the Graduate School along with:
  - a. \$60.00 fee
  - b. official transcript from your degree-granting institution showing a posted bachelor's degree

- Submit record of immunizations and Tuberculosis (TB) screening form to the Student Health Service (for more information see Applying for Admission (p. 9))

*Please note:* Students interested in completing the Pre-Medical Certificate Program **must first be accepted into that program** through the MSU Division of Health Sciences. For more information go to <http://www.montana.edu/hpa/index.html>. (<http://www.montana.edu/dhs/hpa/postbaccadvising.html>)

### Continuing & Former Students

Continuing students are those who attended MSU Spring Semester 2016.

Former students are those who previously attended MSU but were not enrolled Spring Semester 2016.

### Undergraduates

Continuing MSU undergraduate students are automatically admitted to Summer Session. Former MSU undergraduate students must file an Intent to Register form with the Registrar's office. Former students should use the online Intent to Register through MyInfo.

### Post-Baccalaureates

Students who have completed the requirements for their bachelor's degree should apply for admission to the Graduate School as non-degree graduate students (see instructions above under "New Students—Post-Baccalaureates").

*Please note:* Students interested in completing the Pre-Medical Certificate Program **must first be accepted into that program** through the MSU Division of Health Sciences. For more information go to <http://www.montana.edu/hpa/index.html>.

## Course Registration

### New Students

#### Undergraduates

Contact the Academic Advising Center at (406) 994-3532 to discuss advising and registration for summer courses.

#### Post-Baccalaureates (Graduates)

Graduate students may register on the Web. Instructions will be included with your admission acceptance letter from the Graduate School.

### Continuing & Former Students

Continuing students may register beginning March 23 on the Web via MyInfo. 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 and register for classes online. Registration information will be sent via the email address provided on the Intent to Register form.

Students may check their registration status on the Web by going to the MSU home page ([www.montana.edu](http://www.montana.edu)) and following these links: MyInfo; Enter Secure Area; Login (follow instructions on that page); Student Services; Registration; Student Detail Schedule.

## Tuition & Fees

A schedule of Tuition & Fees can be found in Summer Fees (p. 14).

The following additional laboratory fees will be charged for the Summer Science Courses (subject to change with Board of Regents approval):

CHMY 141	\$20.65
CHMY 143	\$20.65
CHMY 321	\$35.10
CHMY 323	\$35.10

PHSX 205	\$20.40
PHSX 207	\$20.40
BIOH 201	\$30.80

### Payment of Fees

Students may obtain a summary of their fees on the Web (My Info) via the following links: 1) Enter Secure Area; 2) Student Services; 3) Student Records; 4) Electronic Billing and Payment. Fees may be paid online, by mail, or in person at Montana Hall.

### Credit Transfer

Students who wish to transfer their science and mathematics credits from MSU to another institution may do so by requesting a transcript from the Registrar's Office. For more information visit the Registrar's Transcript Office page at [www.montana.edu/registrar/transcript/index.html](http://www.montana.edu/registrar/transcript/index.html).

### Housing & Meals

Please refer to the Summer Housing and Meals (p. 16) section.

## General Engineering Courses

For information about online courses and how they work, please see **Summer Online Courses** (p. 39).

#### Enroll through the Registrar

EGEN 201	Engineering Mechanics--Statics <sup>1,1*</sup>	3
EGEN 202	Engineering Mechanics: Dynamics <sup>1,1*</sup>	3
EGEN 203	Applied Mechanics <sup>1</sup>	3
EGEN 205	Mechanics of Materials <sup>2,2*</sup>	3
EGEN 208	Applied Strength of Materials <sup>2</sup>	3
EGEN 310R	Multidisciplinary Engineering Design <sup>1</sup>	3
EGEN 330	Business Fundamentals for Technical Professionals <sup>1</sup>	3
EGEN 335	Fluid Mechanics <sup>2*</sup>	3
EGEN 350	Applied Engineering Data Analysis <sup>1</sup>	2

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

\* Internet/Online

## 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/>

## Sustainable Food and Bioenergy Systems

The Sustainable Food and Bioenergy Systems (SFBS) B.S. degree program (<http://sfbs.montana.edu>) is an exciting, innovative interdisciplinary program from Montana State University that promotes the sustainable production, distribution, and consumption of food and bioenergy. You will experience collaborative learning, directed coursework, and hands-on training.

SFBS 296	Practicum: Towne's Harvest (additional hours required outside of scheduled times) <sup>3</sup>	3
SFBS 298	(Sustainable Foods & Bioenergy Systems Students Only) <sup>1</sup>	2-12
SFBS 346	Sustainable Food and Bioenergy Systems Summer Field Course <sup>2</sup>	2
SFBS 445R	Culinary Marketing: Farm/Table (additional lab times at Towne's Harvest Garden; co-convened with SFBS 541) <sup>2</sup>	3
SFBS 498	<sup>3</sup>	1-12
SFBS 541	Culinary Marketing: Farm to Table (co-convened with SFBS 445R) <sup>2</sup>	3

<sup>1</sup> First 6-Week Session

<sup>2</sup> Second 6-Week Session

<sup>3</sup> Full 12-Week Session

## 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

- Family and Financial Planning (<http://www.montana.edu/online/degrees/FFP>): 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.
- Master of Science in Mathematics (Mathematics Education Option): (<http://math.montana.edu/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.
- Master of Science in Science Education (MSSE) (<http://www.montana.edu/msse/prospective-students/degree-program.html>): MSSE is an intercolleage, 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.

### Non-Degree and Certificate Programs

- Addiction Counseling Certificate Program (<http://www.montana.edu/online/degrees/addiction-counseling>): The MSU Addiction Counseling certificate represents 12 addiction specific coursework credits. These credits may be counted toward the Montana Licensed Addiction Counselor ([http://bsd.dli.mt.gov/license/bsd\\_boards/lac\\_board/board\\_page.asp](http://bsd.dli.mt.gov/license/bsd_boards/lac_board/board_page.asp)) credential.
- Educational Leadership-Superintendent Certification (<http://www.montana.edu/education/grad/edlead>): 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.

- National Teachers Enhancement Network (NTEN) (<http://btc.montana.edu/courses/asp/ntenhome.aspx>): The National Teachers Enhancement Network (NTEN) is one of the country's most-established 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 Master's Degree Programs

### Family and Financial Planning (<http://www.montana.edu/online/degrees/FFP>):

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.

The Family Financial Planning program is offered through the Great Plains Distance Education Alliance (<http://www.gpidea.org>), a consortium of eight mid-western and western land-grant universities.

MSU Family Financial Planning students can expect to take approximately 2 to 3 three-credit online courses from each of the participating institutions throughout the course of their degree, benefiting from shared resources and shared intellectual expertise.

### Master of Science in Mathematics (Mathematics Education Option): (<http://math.montana.edu/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 MSMME curriculum incorporates problem-based and active learning and aligns with the NCTM Principles and Standards for School Mathematics as well as the Common Core State Standards for Mathematics. 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. Embedded in the required coursework are classroom-based research projects that address specific challenges in teaching, investigate new instructional strategies, or allow teachers to design, teach, and assess lessons in a specific content area.

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. Courses are offered on the Bozeman campus each summer. Additionally, two online courses are offered each summer, fall, and spring. All course credits may be applied toward teacher license renewal.

### Master of Science in Science Education (MSSE) (<http://www.montana.edu/msse/prospective-students/degree-program.html>):

*Designed to be completed in two Summer Sessions with five or more semesters interim distance learning course work.*

The Master of Science in Science Education degree program is designed for practicing science educator and is located in the College of Letters and Science. This intercollege-interdisciplinary degree is supported by the colleges of Agriculture; Education, Health and Human Development; Letters and Science; and The Graduate School at MSU.

Thirty semester credits of course work are required for the degree. The program of study includes online courses that students take by computer-mediated conferencing from their homes or work places and summer campus courses. The program ends with an on-campus summer session in which the student presents the culminating capstone project.

All students complete core courses (14 credits) in education and develop interdisciplinary combinations of courses (16 credits) from offerings in biology, chemistry, earth sciences, microbiology, physics, and other areas. About three-fourths of the courses are offered through an online learning mode of instruction.

Each student is advised by a three-person faculty graduate committee, and graduate programs are designed taking into account the student's background, interests, and career goals.

## Family Financial Planning

MSU offers a Master of Science Degree in Health & Human Development with an option in Family Financial Planning through the Great Plains Interactive Distance Education Alliance. The entire program is delivered online through Extended University and a consortium of eight state universities, including MSU. Students enrolled in the degree program have first priority to enroll in the courses. Students not enrolled in the program may register if room is available.

## Summer 2017 Courses

### Enroll through Extended University

HDFP 520	Investing for Family's Future (Dates: TBA)	3
HDFP 540	(Dates: 6/5-7/28)	
HDFP 545	Family Theory and Research I (Dates: 5/15-8/4)	3
HDFP 572	(Dates: 5/15-8/4)	
HDFP 594	Seminar (Date: 5/15-7/7)	1
HDFP 575	(Dates: 5/15-8/4)	1-4
HDFP 576	Professional Practicum (Dates: 5/15-8/4)	3

### To learn more about the program, contact:

Janine Hansen  
jhansen@montana.edu  
(406) 994-5240

or visit the website:

<http://eu.montana.edu/online/degrees/ffp>

## Master of Science in Mathematics (Mathematics Education Option)

*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 MSMME curriculum incorporates problem-based and active learning and aligns with the NCTM Principles and Standards for School Mathematics as well as the Common Core State Standards for Mathematics. 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. Embedded in the required coursework are classroom-based research projects that address specific challenges in teaching, investigate new instructional strategies, or allow teachers to design, teach, and assess lessons in a specific content area.

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. Courses are offered on the Bozeman campus each summer. Additionally, two online courses are offered each summer, fall, and spring. All course credits may be applied toward teacher license renewal.

**Summer Session 2017, which begins June 12 and ends July 28 for Mathematics Education, will include the following courses:**

## On-Campus Courses

### June 26 - July 14, 2017

Enroll through the Office of the Registrar

M 524	Linear Algebra for Teaching	3
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### June 26 - July 14, 2017

Enroll through the Office of the Registrar

M 419	Ratio and Proportion in School Mathematics	3
M 519	Ratio and Proportion in School Mathematics	3

## Distance Delivery Courses

### June 12 - July 28, 2017

Enroll through the Office of the Registrar

M 518	Statistics For Teaching	3
M 520	Standards-Based Math for Teachers	3

**For more information on the Master of Science in Mathematics - Mathematics Education option** consult the Web page [www.math.montana.edu/MSMME](http://www.math.montana.edu/MSMME) or contact:

Jennifer Luebeck  
Dept of Mathematical Sciences  
Montana State University  
Bozeman, MT 59717-2400  
(406) 994-5341  
[jennifer.luebeck@montana.edu](mailto:jennifer.luebeck@montana.edu)

## Master of Science in Science Education (MSSE)

*Designed to be completed in two Summer Sessions with five or more semesters interim distance learning course work.*

The Master of Science in Science Education degree program is designed for practicing science educators. This intercollege-interdisciplinary degree is sponsored by the colleges of Agriculture; Education, Health and Human Development; Letters and Science; and The Graduate School at MSU. The degree program is coordinated by Intercollege Programs for Science Education.

Thirty semester credits of course work are required for the degree. The program of study includes distance courses that students take by computer-mediated conferencing from their homes or work places and summer campus courses. The program ends with an on-campus summer session in which the student presents the culminating capstone project.

All students complete core courses (12 credits) in education and develop interdisciplinary combinations of courses (18 credits) from offerings in biology, chemistry, earth sciences, microbiology, physics and other areas.

About three-fourths of the courses are offered through a distance learning mode of instruction.

Each student is advised by a three-person faculty graduate committee, and graduate programs are designed taking into account the student's background, interests and career goals.

**Summer Session 2017 will include the following courses:**

## On-Campus Courses

Courses are restricted entry. For more information and registration details, contact [dianap@montana.edu](mailto:dianap@montana.edu) or (406) 994-5679.

### June 12-16

LRES 591	Special Topics (Lake Ecology)	2
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### June 19-23

BIOE 520	Animal Biodiversity in GYE	2
ERTH 516	North Rocky Mtn Geology	2
PSPP 548	Flower Plnts of North Rock Mtn	2

### June 24

ERTH 594	Seminar	1-4
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### June 26-June 30

BIOE 523	Wildlife Ecology	2
LRES 557	Thermal Biology in YNP	2
PSPP 591	Special Topics (Plants, People, Health)	2

### June 26-July 1

GEO 521	Dinosaur Paleontology	2
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### July 3-7

BIOE 591	Special Topics	2
CHMY 594	Seminar	1

### July 5-8

EDCI 575	(MSSE Symposium in Science Education)	3
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### July 10-14

BIOE 522	Birds of Prey	2
EELE 591	Special Topics	2
LRES 569	Ecol of Invasive Plants in GYE	2
PHSX 591	Special Topics (Teaching Electricity & Magnetism)	2

### July 17-21

BIOE 591	Special Topics (Alpine Ecology)	2
CSCI 592		2
PHSX 401	Physics by Inquiry I (1st week of 2 weeks)	3

### July 23-28

ERTH 591	Special Topics (Geology of Glacier National Park)	2
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### July 24-28

PHSX 401	Physics by Inquiry I (second week)	3
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## Distance Delivery Courses

For more information and registration details, visit the MSSE website at [www.montana.edu/msse](http://www.montana.edu/msse) or call (406) 994-5679.

### June 12 - August 4

#### Biology

BIOE 513	Terrestrial Ecology of Plains and Prairies	1
BIOE 519	Riparian Zones/Wetlands	2
BIOE 591	Special Topics (Anatomy & Physiology)	3



<b>Chemistry</b>		
CHMY 591	Special Topics (Chemistry of the Environment)	3
CHMY 591	Special Topics (Exploring Chemistry for Teachers)	3
CHMY 591	Special Topics (Exploring Biochemistry)	3
<b>Education, Curriculum &amp; Instruction</b>		
EDCI 536	Construction of Curriculum	3
MSSE 501	Inquiry Sci Eng Prac	2
MSSE 591	Special Topics (Capstone Data Analysis & Classroom Statistics)	2
MSSE 591	Special Topics (Web Tools for Teachers)	3
<b>Microbiology</b>		
MB 541	Microbial Genetics	3

**For more information on the Master of Science in Science Education (MSSE) Program** visit our website at [www.montana.edu/msse](http://www.montana.edu/msse) or contact:

Diana Paterson  
MSSE Associate Director  
451 Reid Hall  
P.O. Box 172805  
Montana State University  
Bozeman, MT 59717-2805  
(406) 994-5679  
[dianap@montana.edu](mailto:dianap@montana.edu)

## Non-Degree and Certificate Programs

### Addiction Counseling Certificate Program (<http://www.montana.edu/online/degrees/addiction-counseling/>):

The MSU Addiction Counseling certificate represents 12 addiction specific coursework credits. These credits may be counted toward the Montana Licensed Addiction Counselor ([http://bsd.dli.mt.gov/license/bsd\\_boards/lac\\_board/board\\_page.asp](http://bsd.dli.mt.gov/license/bsd_boards/lac_board/board_page.asp)) credential.

Montana State University will award you an addiction counseling certificate upon successful completion of the 12 credits.

Montana State University offers a series of fully online courses for those interested in working in the addiction counseling field. The program, which is available to both Montana and out-of-state residents, provides coursework that can be applied toward the State of Montana's Addiction Counselor License. The program is specifically designed to provide the required coursework for the State of Montana licensure requirements; out-of-state students should check their state's general licensing criteria. State licensure also requires additional coursework, clinical internship and a board exam. MSU does not facilitate the internship process.

### Educational Leadership-Superintendent Certification: (<http://www.montana.edu/education/grad/edlead>)

The purpose of this program is to provide the state required courses that teach the minimum skills and knowledge needed 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 offered in a blended format which combines face-to-face delivery and distance delivery. During the academic year, the courses are delivered using distance delivery technology with a face-to-face meeting typically once/month or held in conjunction with a state-level administrator conference. The summer courses start with online instruction in at the beginning of the summer semester ( typically

Mid-May) and face-to-face instruction is held later in June with course completion by the middle of July.

Contact the Department of Education's Graduate Program Office (see contact information below) before April 1<sup>st</sup>, for assistance in completing the Graduate Application for a non-degree seeking student.

*\*Note, there will be no fee attached to the application, as students will not be associated with the MSU Graduate School. The application is merely for contact and previous schooling information.*

Contact Dr. Tena Versland, Program Leader in Educational Leadership, to discuss the lineup of courses required for certification and individual circumstances.

### 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 most-established 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.

NTEN faculty are university scientists, engineers, mathematicians, and science educators, all experienced in online teaching. Through NTEN, educators can also access professional resources and discuss issues with other educators online. NTEN was created by Montana State University and originally funded by the National Science Foundation. NTEN is part of the National Science Teachers Association (NSTA) Institute.

### 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.

We have received official approval from accreditation officials in Alaska, Colorado, Idaho, Montana, Oregon, South Dakota, North Dakota, Washington, and Wyoming. Many other states accept our program as well. Contact your state's Department of Education to ensure that the program is accepted. Our education programs are accredited by the Montana Board of Public Education, the Teacher Education Accreditation Council/Council for the Accreditation of Educator Preparation (TEAC/CAEP), and we participate in the National Association of State Directors of Teacher Education and Certification's (NASDTEC) Interstate Contract.

Students must be admitted to the School Library Media Certificate Program to take courses in the program. The application deadline for Summer 2017 is April 1.

Additionally, the Library Media program offers an option to earn a Masters degree (MEd) in Curriculum & Instruction after completion of all Library Media coursework. The Masters portion involves completion of 9 additional credits past the 21 required by the Library Media Certificate program, and these courses are also offered online. A student must apply to the full MEd program either initially or before 9 credits of Library Media coursework have been completed. See Master of Education in Curriculum & Instruction - Professional Educator Option (<http://catalog.montana.edu/graduate/education-health-human-development/education/med-curriculum-leadership/professional-educator-option>)

## Addiction Counseling Certificate Program

The Addiction Counseling Program provides all of the required coursework for the state of Montana licensure requirements.



The program is administered by the Dept. of Health & Human Development and is offered completely online. You must be admitted into the program to take these courses.

## Summer 2017 Courses

*Enroll through the Registrar*

LAC 505	4*	3
LAC 508	4*	3

<sup>4</sup> Intersession-6/12-8/4/17

\* Internet/Online

**For more information, contact:**

Sarah Hendrikx  
sarah.hendrikx@montana.edu  
(406) 994-7441  
Or visit the website: <http://www.montana.edu/online/degrees/addiction-counseling/>

## Educational Leadership - Superintendent Certification

The Superintendent Certification Program provides the required coursework for current principals to receive their superintendent endorsement by the Montana Office of Public Instruction.

The program is administered by the Department of Education.

## Summer 2017 Courses

**Courses to be announced**

**For more information, contact:**

Tena Versland  
Montana State University  
tena.versland@montana.edu  
(406) 994-6799

or visit the website: [http://www.montana.edu/education/grad/edlead/edlead\\_supt.html](http://www.montana.edu/education/grad/edlead/edlead_supt.html)

## National Teachers Enhancement Network (NTEN)

### About NTEN

The National Teachers Enhancement Network (NTEN) is one of the country's most-established 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.

NTEN faculty are university scientists, engineers, mathematicians, and science educators, all experienced in online teaching. Through NTEN, educators can also access professional resources and discuss issues with other educators online. NTEN was created by Montana State University and originally funded by the National Science Foundation. NTEN is part of the National Science Teachers Association (NSTA) Institute.

**How is NTEN different from other online science programs?**

- NTEN strives to teach science concepts, not just educational methods

- NTEN faculty practice a hands-on, inquiry-based style that mirrors the classroom and sparks new ideas
- NTEN facilitates connections among participants, so that teachers learn best practices from colleagues around the world
- NTEN credits come from Montana State University, a top-tier public research institution

**For general information and registration:**

<http://eu.montana.edu/NTEN>  
(406) 994-6812  
(800) 282-6062

**Registration for Summer will open in March!**

## Summer 2017 Courses

*Enroll through Extended University at eu.montana.edu/NTEN*

BIOL 591	Special Topics (Plant Science: It Grows on You- 6/12-7/28/17)	1
EDCI 591	Special Topics (Weather and Climate for Teachers-5/15-8/4/17)	3
EDCI 591	Special Topics (Fundamentals of Oceanography-5/15-7/21/17)	3
ERTH 591	Special Topics (K-14 Earth System Science-6/12-8/4/17)	2
ERTH 591	Special Topics (Environmental Science Education: Summer Biological Field Studies-6/12-7/28/17)	3
ERTH 591	Special Topics (History of Spaceflight and Space Technology-6/12-8/4/17)	3
LRES 591	Special Topics (Streamside Science: Hands-on Approaches to Water Quality Education-6/12-8/4/17)	3
M 518	Statistics For Teaching (6/12-7/28/17)	3
MB 540	Environmental Microbiology (6/12-8/4/17)	3
PHSX 491	Special Topics (Conceptual Physics-6/12-8/4/17)	3
PHSX 511	Astronomy for Teachers (5/30-8/7/17)	3
PHSX 513	Quantum Mechanics Online (5/15-7/28/17)	3
PHSX 591	Special Topics (Electric Circuits and Magnetism-6/12-7/28/17)	2
PHSX 591	Special Topics (Physics of Renewable Energy for Teachers-5/15-7/28/17)	3
PHSX 591	Special Topics (The World of Motion-5/15-6/23/17)	1
PHSX 591	Special Topics (World of Force-6/26-8/4/17)	1

## School Library Media Certificate Program

The online School Library Media Certificate Program is housed in the Department of Education in the College of Education, Health & Human Development.

If you are interested in acquiring the endorsement on your teaching license to become a school library media specialist, please consider joining us. The Library Media website contains most of the information you need in order to plan your route to certification and to select courses.

We have received official approval from accreditation officials in Alaska, Colorado, Idaho, Montana, Oregon, South Dakota, North Dakota, Washington, and Wyoming. Many other states accept our program as well.

Our education programs are accredited by the Montana Office of Public Instruction and the Montana Board of Public Education, and we participate in the National Association of State Directors of Teacher Education and Certification's (NASDTEC) Interstate Contract.

## Summer 2017 Courses

You must be accepted into the Library Media Certificate Program in order to take courses.

EDCI 546	School Library Media Specialist <sup>3</sup>	3
EDCI 548	Management of Information & Resources <sup>3</sup>	3

<sup>3</sup> Full 12-Week Session

Visit Library Media Program website: <http://www.montana.edu/education/grad/librarymedia/index.html>

### For additional information about admission contact:

Library Media Program  
Montana State University  
P.O. Box 172880  
Bozeman, MT 59717-2880

Tel: (406) 994-3120  
Fax: (406) 994-3261  
E-mail: [ann.ewbank@montana.edu](mailto:ann.ewbank@montana.edu)  
Location: 222 Reid Hall

# Early Enrollment for Pre-College Students

## Opportunities for Recent High School Graduates

Summer Session 2017 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 2017!

### For More Information

#### Admission to MSU (p. 9)

#### Core courses offered during Summer 2017

#### 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 2017 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 2016) or SAT Total Score of 1300 (after March 2017). 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
5. **Coursework:** Must have completed the majority of the College Preparatory coursework outlined under Freshmen Admission Requirements (<http://www.montana.edu/admissions/apply.shtml/#freshman>)
6. **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
8. **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 2017 (p. 37)

#### General questions about Summer Session

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

# Welcome to Bozeman

Home of Montana State University, Bozeman nestles against the Rocky Mountains in the heart of the scenic Gallatin Valley in Southwestern Montana.

## Population

- 38,700 with an additional 16,440 Montana State University enrollment during the academic year.

One of the most diverse small towns in the Rocky Mountain West, Bozeman's residents are an eclectic mix of ranchers, artists, professors, ski enthusiasts and entrepreneurs drawn here by world-class outdoor recreation, Montana State University and a slice of old fashioned Americana. Bozeman prides itself in offering a small town feel with all the amenities and conveniences of a big city.

## Elevation & Summer Weather

- Elevation: 4,800 feet
- Average high summer temperatures: 70s and 80s
- Average low summer temperatures: mid 40s and low 50s
- Annual precipitation: 18.61 inches, one-third of which falls during May and June

Bozeman's climate reflects its mountain valley location. Summers are pleasant, characterized by warm days, cool nights, and an abundance of sunshine. Bozeman is one of the few areas of the country where the average summer climate is comfortable due to the moderate combined heat and humidity. Most summers have seven or fewer days with temperatures exceeding 90 degrees.

## City Attractions

- More than 100 shops, restaurants and coffeehouses lining a beautiful and historic retailing corridor in downtown Bozeman
- Art galleries, opera, symphony and ballet
- Theatre, including Shakespeare in the Parks and the Vigilante Theatre Company
- Sweet Pea Festival (an annual celebration of the arts) and the Gallatin County Fair
- Exceptional museums, including the Gallatin Pioneer Museum, the American Computer Museum, and the world-renowned Museum of the Rockies, featuring one of the finest paleontology collections in North America
- Ten city parks with picnic and playground areas, tennis courts, indoor and outdoor swimming pools, skateboard facilities and a BMX bike park
- Four golf courses in the city and surrounding area

## Transportation Services

- Interstate 90
- Streamline Transit Bus Service (servicing Bozeman and Belgrade)
- Bozeman Yellowstone International Airport (8 miles northwest of Bozeman; serviced by Alaska, Allegiant, American, Delta, Frontier, Jet Suite and United airlines)

## Summer Outdoor Recreation

- Hiking & backpacking
- Rock climbing
- Mountain biking
- Fly fishing
- River rafting, kayaking & canoeing

- Wildlife viewing
- Photography
- Yellowstone National Park (west entrance 90 miles south of Bozeman)

Considered a winter mecca to skiers throughout the country, Bozeman is also renowned for its summer activities. Surrounded by four mountain ranges, thousands of acres of national forest, and hundreds of miles of blue ribbon trout streams, the area offers endless recreation opportunities.

## Awards & Distinctions

- 2016 - No. 4 of the 25 Best Small College Towns, Schools.com
- 2006 - America's #1 Dreamtown, Bizjournals Publications
- 2003 - Fifth Best College Town (North America), *Outside Magazine*
- 2001 - All-America City Award (one of 10 communities nationwide), American Civic League

Bozeman has been nationally recognized for its highly educated workforce, small business growth and strong local economy, civic excellence, intellectual and cultural activity, a world-class museum, its spectacular mountain setting and abundant outdoor recreation opportunities, and the overall outstanding quality of life.

# Special Summer Events

Summer 2017 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!

## Music

### Lunch on the Lawn

#### July-August

Sponsored by the Emerson, this free lunch time concert series features a variety of musical styles including blues, jazz, rock, bluegrass and others. Also enjoy local food vendors, kid's activities, face painting and more! Join other music lovers on the Emerson's lawn, 111 S. Grand Ave., every Wednesday from 11:30 a.m.-1:30 p.m.

#### For more information:

Emerson Center for the Arts & Culture  
(406) 587-9797  
office (<http://catalog.montana.edu/summer-bulletin/special-summer-events/office@theEmerson.org>)@ ([renee@theemerson.org](mailto:renee@theemerson.org))  
(<http://catalog.montana.edu/summer-bulletin/special-summer-events/office@theEmerson.org>)  
[www.TheEmerson.org](http://www.TheEmerson.org) (<http://www.TheEmerson.org>)

## Music on Main

### June-August

Every Thursday evening, June 29-August 17, downtown Bozeman comes alive by featuring a different musical group from an eclectic range of talent. Local restaurants and food vendors join the festival by providing an assortment of dinner options, drinks and treats. Kids' activities begin at 6:30 p.m.; the free concerts begin at 7:00 p.m. and run through 8:30 p.m. Located on Main Street between Rouse and Black Avenues.

#### For more information:

Downtown Bozeman Association  
(406) 586-4008  
[ellie@downtownbozeman.org](mailto:ellie@downtownbozeman.org)  
[www.downtownbozeman.org](http://www.downtownbozeman.org) (<http://www.downtownbozeman.org>)

## Bozeman Community Concert Band

### June-August

Beginning mid-June through early August, the Bozeman Community Concert Band presents concerts every Tuesday evening in the Bogert Park Band Shell, South Church Avenue. Programs use traditional concert band literature including overtures, medleys, Broadway show tunes, and marches. The membership of the band consists of students and adults from throughout the Gallatin Valley as well as MSU students and other guest performers.

#### For more information:

Department of Music  
(406) 994-3562  
[music@montana.edu](mailto:music@montana.edu)

## Theatre

### Shakespeare in the Parks

#### June-September

Montana Shakespeare in the Parks, a recipient of the 1991 Governor's Award for the Arts, is entering its 42nd season presenting live, professional theatre productions in parks throughout Montana and surrounding areas. Montana Shakespeare in the Parks is the only professional theatre program in the state producing Shakespearean plays that offers its performances free

to the public, ensuring that all are able to attend regardless of income level or community size. Whether performing in Birney or Billings, Shakespeare in the Parks has become a major summer event in communities across the region. A complete statewide tour schedule is available on the company's website.

#### For more information:

Shakespeare in the Parks  
(406) 994-3901  
[info@shakespeareintheparks.org](mailto:info@shakespeareintheparks.org)  
[www.shakespeareintheparks.org](http://www.shakespeareintheparks.org) (<http://www.shakespeareintheparks.org>)

## Celebration of the Arts

### Sweet Pea Festival 2015

#### August 4-6

The Sweet Pea Festival, now in its 40th year, takes its name from the Sweet Pea carnivals held in Bozeman more than a century ago. The Festival is a celebration of the arts and includes a parade, arts and crafts sales, a juried art show, children's activities, a flower show, a craft brew and wine garden, theatre, music and dance workshops and performances, and major evening concerts. Most activities are located in Lindley Park at the east end of Bozeman's Main Street. The Festival is supported by admission to the event (sold in advance or at the gates) and is run and organized by volunteers in the community.

Preceding the weekend Festival, Sweet Pea presents the annual **Bite of Bozeman** on Wednesday, Aug. 2 from 5:30-8:30 p.m. Come mingle on Main Street with your friends and family, enjoy the fine cuisine offered by more than 40 local restaurants, and listen to great local bands.

#### For more information:

Sweet Pea Festival  
(406) 586-4003  
[admin@sweetpeafestival.org](mailto:admin@sweetpeafestival.org)  
[www.sweetpeafestival.org](http://www.sweetpeafestival.org) (<http://www.sweetpeafestival.org>)

## Art Walks

### June-September

Every second Friday of the month, June through September, meander down Main Street from 6:00 to 8:00 p.m. and investigate Bozeman's impressive collection of galleries. Meet artists at opening receptions or explore the past with some of the finest collections of Western art in the world. Live music while you stroll. Galleries feature wine and hors d'oeuvres.

#### For more information:

Downtown Bozeman Association  
(406) 586-4008  
[ellie@downtownbozeman.org](mailto:ellie@downtownbozeman.org)  
[www.downtownbozeman.org](http://www.downtownbozeman.org) (<http://www.downtownbozeman.org>)

## Museum Exhibits

### Museum of the Rockies

Museum of the Rockies (MOR) at Montana State University is a Smithsonian Affiliate and is accredited by the American Alliance of Museums.

Recognized for its vast collection of dinosaur fossils and its permanent regional history exhibits, MOR also thrills visitors with changing exhibits from around the world, the Martin Children's Discovery Center, the Living History Farm (open summers), and the Taylor Planetarium, featuring a state-of-the-art digital projection system.

The Siebel Dinosaur Complex at MOR is curated by Jack Horner, 2013 recipient of the Romer-Simpson Lifetime Achievement Award from the Society of Vertebrate Paleontology and scientific advisor on all of the

Jurassic Park films. The Complex features more than 10,000 square feet of exhibit space, and many of its displays are based on the latest discoveries from the Museum's world-renowned paleontology program. It houses specimens that span millions upon millions of years and range from *T. rex* to *Triceratops* and beyond.

### Changing Exhibits

For more information on MOR's changing exhibits, please visit [www.museumoftherockies.org](http://www.museumoftherockies.org). (<http://www.museumoftherockies.org>)

### Living History Farm

#### Open Memorial Day – Labor Day

Costumed interpreters share what life was like in 1890s Montana when you visit this historically accurate, working homestead, featuring a blacksmith shop, Heirloom Gardens, the original Tinsley house and more.

### Taylor Planetarium

From the colors of the cosmos to the brilliance and beauty of Montana's night skies, the Taylor Planetarium gives you an edge-of-your-seat look at the earth, the stars and the universe that surrounds us. One of only a handful of planetariums in the world to feature the advanced Digistar 5 projection system, the Taylor Planetarium provides a unique viewing experience to visitors young and old.

For current shows and showtimes, visit [www.museumoftherockies.org](http://www.museumoftherockies.org). (<http://www.museumoftherockies.org>)

### Museum Store

The Museum Store features the latest in "Made in Montana" gifts—including casual clothing, kids' toys, delicious treats, artisan jewelry, pottery, and soaps, as well as a wide variety of regional products. You'll also find a large selection of books that engage and children's toys that entertain based on Montana history and the Museum's latest exhibits. It's the perfect place to find just the right gift for kids of every age.

### Visiting the Museum

#### Location

On West Kagy between S. 7th and 3rd and directly next to Bobcat Stadium

#### Summer Hours

Open 8:00 a.m. to 8:00 p.m.

#### Admission

Admission fee is charged to non-members; MSU students receive a discount with valid student ID. For our latest admission fees, visit [www.museumoftherockies.org](http://www.museumoftherockies.org). (<http://www.museumoftherockies.org>)

#### For more information:

Museum of the Rockies  
600 W. Kagy Blvd., Bozeman  
(406) 994-2251  
[museum@montana.edu](mailto:museum@montana.edu)  
[www.museumoftherockies.org](http://www.museumoftherockies.org) (<http://www.museumoftherockies.org>)

### American Computer Museum

Open since 1990, the American Computer Museum in Bozeman is the world's oldest continually operating exhibition dedicated to the history of the Information Age. This award winning museum has assembled more than 5,000 years of technology through thousands of artifacts displayed in a visitor friendly environment. The exhibits are designed to appeal to both the novice and technology expert. See scores of displays including original Babylonian clay tablets, historic Bible leaves, and Isaac Newton's the *Principia* and the *Opticks*. Travel through the evolution of the information age with exhibits such as the telegraph, telephone, radio, television, slide

rules, computers and computer technology—including the ENIAC, Apple 1, the Internet, and DNA.

### Museum Location & Hours

#### Location

2023 Stadium Dr., Suite 1-A  
Bozeman

#### Summer Hours (June-August)

Daily: 10:00 a.m. to 4:00 p.m. (closed July 4th)

#### Admission

Free (donations welcomed)

#### Group Tours

Available by appointment

#### For more information:

American Computer Museum  
(406) 582-1288  
[director@compustory.com](mailto:director@compustory.com)  
[www.compustory.com](http://www.compustory.com) (<http://www.compustory.com>)

### The Gallatin History Museum

#### Gallatin Historical Society

The Gallatin History Museum of Bozeman, operated by the Gallatin Historical Society, promotes, fosters, and preserves the history of Gallatin County and southwest Montana. Located in the former county jail and listed on the national register of historic places, the museum features dozens of displays on various aspects of local history, including the American Indian, Lewis and Clark, Fort Ellis, fur traders, gold miners, pioneers, and settlers.

Indian tools and arrowheads are shown on the main floor, as is the impact of the Sioux War of 1876 and the trek of the Nez Perce under Chief Joseph in 1877.

The routes used by Lewis and Clark and some of the fauna and animals they discovered are part of a display that also features implements used by fur traders. There are also scale models of wagons, stagecoaches, and even a keelboat.

The Fort Ellis display explores the importance of the military post to the early growth and development of Bozeman. The museum's gun collection includes rifles and pistols manufactured in the 1800s by Remington and Sharps and a single-bore cannon used in fights against the Sioux nation in the Yellowstone Valley. The agricultural room has tools and implements used by early farmers, including a butter churn, sheep shears, a drill press, and a centrifuge.

An overview of every community in the county is available in the balcony area, as is a display on the history of the Sweet Pea Festival. A turn-of-the-century lady's parlor shows furniture and keepsakes treasured by 19th century Montana women. Visitors can also learn about the history of Montana State University and the earthquake-prone Gallatin Canyon.

Because the building was once the county jail, visitors will get to view jail cells and even a hanging gallows during their tour. The museum also houses a research center that stores nearly 18,000 historical photographs, as well as documents, newspapers, journals and diaries on local history. The museum bookstore holds hard-to-find books on southwest Montana history.

### Museum Location & Hours

#### Location

317 W. Main St., Bozeman



## Hours

Labor Day to Memorial Day,  
Tues. - Sat., 11 a.m.-4 p.m.  
Memorial Day to Labor Day,  
Mon. - Sat., 10 a.m. - 5 p.m.

## Admission Fee

\$5.00 per person (children age 12 and under, and Museum members admitted free)

### For more information:

Gallatin History Museum  
(406) 522-8122  
research@gallatinhistorymuseum.org  
www.gallatinhistorymuseum.org (<http://www.gallatinhistorymuseum.org>)

## Farmers' Markets

### Bogert Farmers' Market

#### June-September

Gather, socialize and share at a great community event, the Bogert Farmers' Market, held every Tuesday evening from 5:00-8:00 p.m. starting in early June. Locally grown produce, arts, crafts, music, food, family activities and more are featured each week at Bogert Park, South Church Avenue. The Market is a non-profit and commits its revenues to the preservation and improvement of Bozeman parks.

### Volunteer and internship opportunities available.

### For more information:

Bogert Farmers' Market  
(406) 539-0216  
www.bogertfarmersmarket.org (<http://www.bogertfarmersmarket.org>)

### Gallatin Valley Farmers' Market

#### June-September

The original Gallatin Valley Farmers' Market is a project of Career Transitions, a non-profit organization providing job search activities for the past 30 years. In addition to fresh vegetables, fruits, and herbs sold by local growers, the Gallatin Valley Farmers' Market offers arts and crafts, baked goods, jewelry, coffee, and beef and pork. Free and open to the public, the Market is held every Saturday morning, June 21-Sept. 13, from 9:00 a.m.-12:00 noon at the Gallatin County Fairgrounds on Tamarak Street.

### For more information:

Gallatin Valley Farmers' Market  
(406) 388-6701  
farmersmarket@careertransitions.com  
www.gallatinvalleyfarmersmarket.com (<http://www.gallatinvalleyfarmersmarket.com>)

## County Fair

### Big Sky Country State Fair-Gallatin County

#### July 17-23

The Big Sky Country State Fair celebrates the Montana lifestyle with music, livestock, special entertainment, children's activities, competitive exhibits, carnival, food, agriculture education, class exhibits, 4-H exhibits and animals, rodeo, mud bog, dog contests and more. Located at 901 N. Black, Bozeman.

### For more information:

Gallatin County Fairgrounds  
(406) 582-3270  
fairgrounds@gallatin.mt.gov

facebook.com/gallatincountyfairgrounds (<http://www.facebook.com/gallatincountyfairgrounds>)  
Twitter@gcfFUN

## Crazy Days

### Downtown Crazy Days

#### July 21-23

It's the biggest, the best and the original—it's the Downtown Crazy Days on the third weekend in July. From 10:00 a.m. to 6:00 p.m., downtown merchants take to the sidewalks with unbelievable sales on spring and summer merchandise.

### For more information:

Downtown Crazy Days  
(406) 586-4008  
www.downtownbozeman.org (<http://www.downtownbozeman.org>)

## Car Show

### "Cruisin' on Main"

#### Annual Car Show

#### August 20

Car enthusiasts are invited to enter their vehicles in the "Cruisin' on Main" Annual Car Show. All classes are welcome. Entrants may preregister ahead of time or register on the day of the show. Dash plaques will be presented to the first 50 cars to register and trophies will be awarded in all classes including Best of Show. The Show is always held on the third Sunday of August, 9:00 a.m. to 3:00 p.m., on Main Street between Rouse and Willson Avenues.

### For more information:

"Cruisin' on Main"  
(406) 586-4008  
www.downtownbozeman.org (<http://www.downtownbozeman.org>)

# Summer Programs for Young People

## Office of Continuing Education

**For a brochure or more information contact:**

Nicole Soll

(406) 994-6633

ContinuingEd@montana.edu (ContinuingEd@montana.edu)

eu.montana.edu/ContinuingEd/youth

## Peaks and Potentials

### Grades 5-7 (in Fall 2017), June 18-23

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 22, 2017

**Cost:** \$30

**Grades:** 6th-8th grade girls

**Location:** Montana State University, Bozeman, MT

**Registration:** Opens March 6, 2017

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.

## 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) (<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) (<http://www.museumoftherockies.org>)

## MSU Extension Service

### Montana 4-H Congress

#### July 12-15

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.

**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) (<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) (<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) (<http://www.bozeman.net/recreation>)

# Summer Course Descriptions

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## AC - Addiction Counselor

### AC 505. Cross Cultural & Ethical Considerations in Addictions Counseling. 3 Credits. (3 Lec) 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
2017 Summer Session	11414	801	Intercession	-	-	-

### 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11415	801	Intercession	-	-	-

## 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
2017 Summer Session	10931	002	Second Half Session	-	-	-
2017 Summer Session	11359	001	Second Half Session	MTWR	MHFC175	7:45am - 8:35am

### 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
2017 Summer Session	11088	001	First Half Session	MWF	MHFCS GYM	7:00am - 8:15am

### 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
2017 Summer Session	10932	002	Second Half Session	MTWR	MHFCSTUDIO 3	9:45am - 9:35am

### ACT 169. Beginning Tennis. 1 Credit. (1 Lab; 3 cr max) F,S,Su

Students will learn the rules of tennis and how to play singles and doubles. The instructor will teach the basic tennis strokes including forehand, backhand, overhead, volley, and the serve.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11360	001	First Half Session	MW	-	5:30pm - 7:30pm

## 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
2017 Summer Session	10030	001	First Half Session	MTR	JABS111	7:30am - 9:50am

### 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
2017 Summer Session	10031	001	Second Half Session	MTR	JABS315	7:30am - 9:50am

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

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
2017 Summer Session	10549	001	Second Half Session	MTR	JABS315	10:00am - 12:20pm

### 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
2017 Summer Session	10598	001	Non-standard term dates 22-MAY-17 09-JUN-17	MTWRF	JABS415	8:30am - 11:20am

## 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
2017 Summer Session	10488	001	Intercession	-	-	-

### 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
2017 Summer Session	11283	850	Non-standard term dates 26-JUN-17 30-JUN-17	-	-	-

## 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
2017 Summer Session	11351	001	First Half Session	TR	GCNB11	4:30pm - 9:00pm

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

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

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10695	001	Full Semester	-	-	-

## 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
2017 Summer Session	10876	001	Non-standard term dates 31-JUL-17 18-AUG-17	TR	GCNB11	6:00pm - 8:00pm

## 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
2017 Summer Session	11095	801	Second Half 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
2017 Summer Session	11001	098	First Half Session	-	-	-
2017 Summer Session	11096	801	First Half Session	-	-	-

**AMST 401R. Seminar in American Studies. 4 Credits.** (4 Sem) S to be offered even years.

PREREQUISITE: AMST 201. Capstone course in American Studies. Students will research and design solutions to contemporary problems in American Society. Co-convened with AMST 501 and 502.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10750	801	First Half Session	-	-	-

**AMST 502. Research in American Studies. 3 Credits.** (3 Sem) F,S

PREREQUISITE: AMST 501. Graduate research and advanced readings in American Studies. Co-convened with AMST 401R.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10883	801	First Half Session	-	-	-

## ANSC - Animal Science

**ANSC 322. Principles of Animal Breeding and Genetics. 3 Credits.** (3 Lec) 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
2017 Summer Session	11202	001	Full Semester	-	-	-

## ANTY - Anthropology

**ANTY 101D. Anthropology and the Human Experience. 3 Credits.** (3 Lec) F,S

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
2017 Summer Session	10963	801	Second Half Session	-	-	-

**ANTY 242D. Contemporary Japan. 3 Credits.** (3 Lec) On Demand

Introduction to major political, economic, social and cultural issues in contemporary Japanese society. On-going legacy of WW II, re-emerging nationalism, and backlash against ideas and institutions of "post-war democracy". Citizen activism on these issues in and outside Japan.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11379	801	First Half Session	-	-	-

**ANTY 252IS. Mysteries of the Past. 3 Credits.** (3 Lec) F

Focuses on archaeological thinking and the use of the scientific method in archaeology. Examines a variety of archaeological and pseudo archaeological claims from this perspective.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10740	801	First Half Session	-	-	-

**ANTY 467. Archaeology Field School. 1-9 Credits.** (1-9 Lec; 9 cr max) Su

On demand PREREQUISITE: ANTY 101. A summer of archaeological field work at a location away from the University; training in excavation and laboratory methods. (Offered when funding available.)

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11123	001	Second Half 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
2017 Summer Session	10401	001	First Half Session	TR	CHVR131	1:00pm - 2:50pm
2017 Summer Session	10402	002	First Half Session	TR	CHVR131	3:00pm - 4:05pm

**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
2017 Summer Session	10427	001	First Half Session	MWF	CHVR207	1:10pm - 5:00pm

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

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
2017 Summer Session	11171	001	Second Half Session	MWF	CHVR207	8:00am - 11:50am

**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 multi-disciplinary practices in "ecological design".

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11257	001	Second Half Session	MWF	CHVR131	9:00am - 11:20am

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

PREREQUISITE: Formal admission into the environmental design program (ENVD). 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
2017 Summer Session	10955	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

**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
2017 Summer Session	10956	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

**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
2017 Summer Session	10957	001	Full Semester	MTR	CHVR207	8:00am - 11:30am



**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
2017 Summer Session	11133	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

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

PREREQUISITE: ARCH 355. 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
2017 Summer Session	10752	001	Full Semester	-	-	-
2017 Summer Session	10977	002	Full Semester	-	-	-

**ARCH 425. West Architectural History. 3 Credits.** (3 Sem; 6 cr max) On Demand

PREREQUISITE: ARCH 322 and ARCH 323. 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
2017 Summer Session	10573	001	Full Semester	-	-	-

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

PREREQUISITE: ARCH 322 and ARCH 323. 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
2017 Summer Session	10574	001	Full Semester	-	-	-

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

PREREQUISITE: ARCH 322 and ARCH 323. 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
2017 Summer Session	10753	001	Full Semester	-	-	-
2017 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
2017 Summer Session	11136	801	Full Semester	-	-	-

**ARCH 450. Community Design Center. 5 Credits.** (1 Lec, 4 Lab) F,Su

PREREQUISITE: ARCH 355. 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 Montana.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10754	001	Full Semester	MTR	CHVR120	8:00am - 11:30am
2017 Summer Session	10958	002	First Half Session	-	-	-

**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
2017 Summer Session	10975	001	First Half Session	-	-	-
2017 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
2017 Summer Session	11134	001	Full Semester	MTR	CHVR207	8:00am - 11:30am

**ARCH 458. Arch Design VI. 5 Credits.** (1 Lec, 4 Lab; 12 cr max) On Demand

PREREQUISITE: ARCH 355. A continuation of the holistic design synthesis encountered in ARCH 457 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
2017 Summer Session	10575	001	Full Semester	-	CHVR145	-

**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
2017 Summer Session	10307	001	Full Semester	-	-	-
2017 Summer Session	10555	002	Full Semester	-	-	-
2017 Summer Session	10577	003	Full Semester	-	-	-
2017 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
2017 Summer Session	10560	001	Second Half 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
2017 Summer Session	10658	001	First Half Session	MW	CHVR131	1:00pm - 5:00pm
2017 Summer Session	10659	002	Second Half 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
2017 Summer Session	10528	001	First Half Session	-	-	-
2017 Summer Session	10660	002	Second Half Session	MW	CHVR131	1:00pm - 5:00pm

**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 vary.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10561	001	First Half Session	-	-	-
2017 Summer Session	10562	002	Full Semester	-	-	-
2017 Summer Session	10661	003	Second Half Session	-	-	-
2017 Summer Session	10662	004	Second Half Session	-	-	-

**ARCH 527. Architecture: Meaning & Place. 3 Credits.** (3 Sem; 9 cr max)

**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
2017 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
2017 Summer Session	10663	001	First Half Session	MW	CHVR108	1:00pm - 5:30pm
2017 Summer Session	10664	002	Second Half Session	M	CHVR108	1:00pm - 3:00pm
2017 Summer Session	10664	002	Second Half Session	W	CHVR108	1:00pm - 5:30pm
2017 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
2017 Summer Session	10579	001	Full Semester	MTR	CHVR207	8:00am - 1:30pm

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

**Su 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
2017 Summer Session	10465	001	Second Half Session	S	-	9:00am - 1:40pm
2017 Summer Session	10465	001	Second Half Session	W	CHVR131	5:30pm - 7:30pm

## ARNR - Animal & Range Natural Res

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

**PREREQUISITE:** WILD 426 OR WILD 428 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
2017 Summer Session	10748	001	Non-standard term dates 12-JUN-17 17-JUN-17	-	-	-

## ARTH - Art: Art History

**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
2017 Summer Session	10369	001	Second Half Session	MTR	ROBH209	1:45pm - 4:05pm

**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
2017 Summer Session	11374	001	Second Half Session	MTR	JABS307	8:45am - 11:05am

**ARTH 435. Art in the United States. 3 Credits.** (3 Lec) F

alternate even years **PREREQUISITES:** ARTH 200 or ARTH 201 This course will examine American painting and sculpture from the time of European settlement to 1918 with special emphasis on political, social and cultural contexts.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11350	001	First Half Session	MTR	WIL1122	1:45pm - 5:00pm

## ARTZ - Art: Visual Arts

**ARTZ 105RA. Visual Language - Drawing. 3 Credits.** (6 Stu) F,S

**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
2017 Summer Session	10934	001	First Half Session	MTWR	HAYH107	1:45pm - 5:00pm

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

**PREREQUISITE:** Consent of instructor. 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
2017 Summer Session	11044	001	First Half Session	MTWR	HAYH107	8:45am - 1:00pm

**ARTZ 110RA. Visual Language: Ideation and Creativity. 4 Credits.** (1 Lec, 3 Std) S  
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
2017 Summer Session	11043	001	Second Half Session	MTWR	HAYH107	8:45am - 1:00pm

**ARTZ 221. Painting I. 4 Credits.** (2 Lec, 2 Lab) F,S

PREREQUISITE: ARTZ 109RA, ARTZ 105RA. Introduction to oil and/or acrylic painting. Exploration of basic aesthetic and technical concepts in painting. Primarily representational subject matter. Understanding and developing individual stylistic tendencies. Individual and group critiques.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11109	001	Full Semester	-	-	-

**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
2017 Summer Session	11375	001	Second Half Session	MTWR	HAYH108	8:30am - 2:55pm

**ARTZ 291. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand

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
2017 Summer Session	10946	001	Full Semester	-	-	-

**ARTZ 322. Intermediate Painting. 5 Credits.** (3 Std, 2 Rct; 15 cr max) F,S

PREREQUISITE: ARTZ 221. Advanced technical and aesthetic concepts. Emphasis on the development of a personal artistic style. Use of traditional and non-traditional subject matter. Individual and group critiques.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11110	001	Full Semester	-	-	-

**ARTZ 376. Intermediate Printmaking - Relief. 5 Credits.** (3 Std, 2 Rct; 15 cr max) F

PREREQUISITE: ARTZ 271. 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 (collagraph), color overlay, split fountain, roller and brush inking, and various hand and press printing methods.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11348	001	First Half Session	MTWR	HAYH133	8:45am - 1:00pm

**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
2017 Summer Session	10035	001	Full Semester	-	-	-
2017 Summer Session	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
2017 Summer Session	10037	001	Full Semester	-	-	-

**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
2017 Summer Session	10041	001	Full Semester	-	-	-

**ARTZ 432. Kiln Building Intensive. 3-6 Credits.** (1 Lec, 2 Lab) Su, On Demand

PREREQUISITES: ARTZ 231RA, or consent of the instructor. This course is for those interested in pursuing a career in the ceramic arts. The class will offer students the opportunity to learn the design, cost estimates, and construction process for building an essential tool for their work, a kiln.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11270	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11327	003	Intersession	-	-	-

**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
2017 Summer Session	10038	001	Full Semester	-	-	-
2017 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
2017 Summer Session	10039	001	Full Semester	-	-	-

**ARTZ 472. Guided Research- Printmaking. 1-5 Credits.** (1-5 Ind; 15 cr max) F,S,Su

PREREQUISITE: ARTZ 373 or 374, ARTZ 376, ARTZ 375, 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
2017 Summer Session	10040	001	Full Semester	-	-	-

**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 a trial basis to determine acceptability and demand before requesting a regular course number.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11252	001	Second Half Session	-	-	-
2017 Summer Session	11349	002	Non-standard term dates 15-MAY-17 02-JUN-17	MTWRF	HAYH119	9:00am - 5:00pm

**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
2017 Summer Session	10370	001	Full Semester	-	-	-

**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
2017 Summer Session	10268	001	Full Semester	-	-	-

**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
2017 Summer Session	10269	001	Full Semester	-	-	-

**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
2017 Summer Session	10270	001	Full Semester	-	-	-

**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
2017 Summer Session	10271	001	Full Semester	-	-	-

**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
2017 Summer Session	10073	001	Full Semester	-	-	-
2017 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
2017 Summer Session	10075	001	Full Semester	-	-	-
2017 Summer Session	10301	002	Full Semester	-	-	-

**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
2017 Summer Session	10076	001	Full Semester	-	-	-
2017 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
2017 Summer Session	10346	001	Second Half Session	MTWR	BARNAH108	10:00am - 11:05am
2017 Summer Session	10346	001	Second Half Session	MW	BARNAH108	11:15am - 12:20pm

## 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
2017 Summer Session	10080	001	First Half Session	MTWRF	GH243	8:00am - 9:45am
2017 Summer Session	10081	002	First Half Session	TR	GH349	1:00pm - 3:50pm
2017 Summer Session	10082	003	First Half Session	TR	GH349	10:00am - 12:50pm
2017 Summer Session	10702	050	Full Semester	-	-	-
2017 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10643	801	First Half Session	-	-	-

## BGEN - Business: General

**BGEN 204. Business & Entrepreneurship Fundamentals. 3 Credits.** (3 Lec) F,S  
This interactive course focuses on developing an entrepreneurial mindset and understanding fundamental business concepts in management, marketing, accounting, and finance. Intended for transfers into the College of Business & Entrepreneurship, non-business majors, and those who have not taken BGEN 194US.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10639	001	First Half Session	-	-	-

**BGEN 242D. Intro to Int'l Business. 3 Credits.** (3 Rct) 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
2017 Summer Session	10816	801	First Half 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
2017 Summer Session	10306	001	First Half Session	MTR	JABS311	10:00am - 12:20pm

**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
2017 Summer Session	10429	801	First Half Session	-	-	-
2017 Summer Session	10430	802	First Half Session	-	-	-

BGEN - Business: General

## BIOB - Biology-General

**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
2017 Summer Session	10905	001	First Half Session	MTWR	LINH125	9:00am - 11:00am

**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
2017 Summer Session	10093	002	Second Half Session	-	-	-
2017 Summer Session	10305	001	First Half Session	-	-	-

## BIOE - Biology-Ecological

**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
2017 Summer Session	10605	001	Second Half Session	-	LEWH107	-
2017 Summer Session	10605	001	Second Half Session	MW	LEWH306	8:45am - 9:50am

**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
2017 Summer Session	10699	001	First Half Session	MWRF	WIL1122	10:00am - 11:05am

**BIOE 513. Terrestrial Ecology of Plains and Prairies. 1 Credit.** (1 Rct) 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 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
2017 Summer Session	11223	801	Interession	-	-	-

**BIOE 519. Riparian Zones/Wetlands. 2 Credits.** (2 Rct) 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
2017 Summer Session	11224	801	Interession	-	-	-

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

PREREQUISITE: BIOE 370, F&WL 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
2017 Summer Session	11203	001	Non-standard term dates 19-JUN-17 23-JUN-17	-	-	-

**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
2017 Summer Session	11352	001	Non-standard term dates 10-JUL-17 14-JUL-17	-	-	-

**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
2017 Summer Session	11204	001	Non-standard term dates 26-JUN-17 14-JUL-17	-	-	-

**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
2017 Summer Session	11205	001	Non-standard term dates 03-JUL-17 14-JUL-17	-	-	-
2017 Summer Session	11206	002	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11207	003	Non-standard term dates 17-JUL-17 21-JUL-17	-	-	-

## 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
2017 Summer Session	10656	001	Non-standard term dates 15-MAY-17 30-JUN-17	MTWR	REID101	1:10pm - 2:30pm
2017 Summer Session	10657	002	Non-standard term dates 15-MAY-17 30-JUN-17	MTWR	JONH240	8:00am - 9:50am
2017 Summer Session	10755	003	Non-standard term dates 15-MAY-17 30-JUN-17	MTWR	JONH240	10:00am - 11:50am

**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
2017 Summer Session	10607	001	Full Semester	-	-	-
2017 Summer Session	10607	001	Full Semester	MTWRF	LEWH204	1:00pm - 5:00pm

**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
2017 Summer Session	10608	001	Full Semester	MTWRF	LEWH204	8:00am - 5:00pm

**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	Time
2017 Summer Session	10609	001	Full Semester	-	-	-
2017 Summer Session	10609	001	Full Semester	MTWRF	LEWH204	8:00am - 12:00pm

**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
2017 Summer Session	10606	001	Full Semester	-	-	-
2017 Summer Session	10606	001	Full Semester	MTWRF	LEWH204	8:00am - 5:00pm

**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
2017 Summer Session	10713	001	Full Semester	-	-	-
2017 Summer Session	10713	001	Full Semester	MTWRF	LEWH204	8:00am - 5:00pm

**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
2017 Summer Session	10335	002	Full Semester	-	-	-

**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
2017 Summer Session	10915	001	Full Semester	-	-	-

## BIOI - Biology

**BIOI 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11148	801	Interession	-	-	-
2017 Summer Session	11225	802	Interession	-	-	-

## 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
2017 Summer Session	10029	801	First Half Session	-	-	-
2017 Summer Session	11397	802	Second Half Session	-	-	-



**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
2017 Summer Session	10034	001	First Half Session	TWR	JABS215	7:30am - 9:50am

**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
2017 Summer Session	10032	801	Second Half 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
2017 Summer Session	10910	001	Full Semester	-	-	-

## BMIS - Business: Mgmt Info Systems

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

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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10576	001	First Half Session	MTR	JABS211	10:00am - 12:20pm

**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
2017 Summer Session	10033	801	Full Semester	-	-	-

## BMKT - Business: Marketing

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

PREREQUISITE: Junior standing and ECNS 101. 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
2017 Summer Session	10520	802	First Half Session	-	-	-
2017 Summer Session	10904	801	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
2017 Summer Session	10393	001	First Half Session	MTWR	GH043	7:30am - 8:35am
2017 Summer Session	10393	001	First Half Session	F	GH043	7:30am - 9:50am
2017 Summer Session	10394	002	First Half Session	MW	GH216	12:30pm - 4:05pm
2017 Summer Session	10705	050	First Half Session	-	-	-
2017 Summer Session	10758	003	First Half Session	MW	GH218	12:30pm - 4:05pm

**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
2017 Summer Session	10390	001	Second Half Session	MTWRF	GH043	7:30am - 8:45am
2017 Summer Session	10391	002	Second Half Session	TR	GH347	9:00am - 12:00pm
2017 Summer Session	10392	003	Second Half Session	TR	GH218	12:30pm - 4:05pm
2017 Summer Session	10709	050	Second Half Session	-	-	-

**CHMY 141. College Chemistry I. 4 Credits.** (3 Lec, 1 Lab) F,S,Su

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
2017 Summer Session	10384	001	First Half Session	MWRF	GH043	10:00am - 11:05am
2017 Summer Session	10384	001	First Half Session	T	GH043	10:00am - 12:20pm
2017 Summer Session	10385	002	First Half Session	MW	GH210	12:30pm - 4:05pm
2017 Summer Session	10386	003	First Half Session	MW	GH245	12:30pm - 4:05pm
2017 Summer Session	10538	004	First Half Session	MW	GH247	12:30pm - 4:05pm
2017 Summer Session	10565	050	First Half Session	-	-	-



**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
2017 Summer Session	10387	001	Second Half Session	MWRF	GH043	10:00am - 11:05am
2017 Summer Session	10387	001	Second Half Session	T	GH043	10:00am - 12:20pm
2017 Summer Session	10388	002	Second Half Session	MW	GH245	12:30pm - 4:05pm
2017 Summer Session	10389	003	Second Half Session	MW	GH247	12:30pm - 4:05pm
2017 Summer Session	10428	004	Second Half Session	MW	GH210	12:30pm - 4:05pm
2017 Summer Session	10710	050	Second Half Session	-	-	-

**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
2017 Summer Session	10063	001	First Half Session	MTRF	WIL1143	10:00am - 11:05am
2017 Summer Session	10063	001	First Half Session	W	WIL1143	10:00am - 12:20pm
2017 Summer Session	10064	002	First Half Session	TR	GH316	12:00pm - 3:35pm
2017 Summer Session	10065	003	First Half Session	M	GH316	12:00pm - 3:35pm
2017 Summer Session	10065	003	First Half Session	W	GH316	1:00pm - 4:35pm
2017 Summer Session	10285	004	First Half Session	M	GH318	12:00pm - 3:35pm
2017 Summer Session	10285	004	First Half Session	W	GH318	1:00pm - 4:35pm
2017 Summer Session	10711	050	First Half Session	-	-	-

**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
2017 Summer Session	10272	001	Second Half Session	MTRF	WIL1143	10:00am - 11:05am
2017 Summer Session	10272	001	Second Half Session	W	WIL1143	10:00am - 12:20pm
2017 Summer Session	10273	002	Second Half Session	TR	GH316	12:00pm - 3:35pm
2017 Summer Session	10274	003	Second Half Session	M	GH316	12:00pm - 3:35pm
2017 Summer Session	10274	003	Second Half Session	W	GH316	1:00pm - 4:35pm
2017 Summer Session	10291	004	Second Half Session	M	GH318	12:00pm - 3:35pm
2017 Summer Session	10291	004	Second Half Session	W	GH318	1:00pm - 4:35pm
2017 Summer Session	10712	050	Second Half Session	-	-	-

**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
2017 Summer Session	11226	801	Intercession Session	-	-	-
2017 Summer Session	11227	803	Intercession Session	-	-	-
2017 Summer Session	11331	851	Full Semester Session	-	-	-
2017 Summer Session	11353	805	Intercession Session	-	-	-

**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
2017 Summer Session	11208	001	Non-standard term dates 03-JUL-17 17-JUL-17	-	-	-

## 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
2017 Summer Session	10327	801	First Half 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
2017 Summer Session	11009	801	First Half Session	-	-	-

**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
2017 Summer Session	10948	801	Second Half Session	-	-	-

**CHTH 325. Leadership & Public Policies in Aging. 3 Credits.** (3 Lec) 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
2017 Summer Session	11008	801	First Half 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
2017 Summer Session	11403	801	Second Half 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
2017 Summer Session	10720	801	First Half Session	-	-	-
2017 Summer Session	10858	802	Second Half Session	-	-	-

**CHTH 494. Seminar. 3 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11413	001	Full Semester	-	-	-

**CHTH 495. Pract Experience in Aging. 3 Credits.** (3 Lec) Su

**PREREQUISITE:** Completion of 12-credits of coursework in the online gerontology. 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
2017 Summer Session	11131	001	Full Semester	-	-	-

## 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
2017 Summer Session	10550	801	Non-standard term dates 08-MAY-17 21-JUL-17	-	-	-

**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
2017 Summer Session	10486	801	Non-standard term dates 08-MAY-17 21-JUL-17	-	-	-

**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
2017 Summer Session	10487	801	Non-standard term dates 08-MAY-17 21-JUL-17	-	-	-

## COLS-College Studies

**COLS 103. College Learning Strategies. 1 Credit.** (1 Lec) F,S

This survey course introduces to the effective use of college resources and methods of increasing success in other courses. It acquaints students with study skills and prepares them to integrate traditional study skills with college content areas. Student will develop learning and study strategies to become efficient students. Also, students will become familiar with professors, academic advisors, and college resources.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11388	001	Second Half Session	MR	WIL1123	11:15am - 12:20pm

## COMX - Communication

**COMX 102. Interpersonal Skills in the Workplace. 1 Credit.** (1 Lec) F,S,Su

Offered by Gallatin College. This course covers the basic elements of communication in the business environment, including listening, speaking, and reading. It also looks at the importance of nonverbal communication, ethics, and professional courtesy. It discusses the importance of internal skills like teamwork and external skills with customers such as reflective listening. Successful interview skills are discussed in class and demonstrated in final student project.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10878	001	First Half Session	-	-	-

**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
2017 Summer Session	10953	001	First Half Session	TR	WIL1130	8:45am - 9:50am
2017 Summer Session	10953	001	First Half Session	TR	WIL1130	12:30pm - 2:50pm
2017 Summer Session	10954	002	Second Half Session	MW	WIL1132	8:45am - 8:50am
2017 Summer Session	10954	002	Second Half Session	MW	WIL1132	10:00am - 12:20pm

**COMX 222. Professional Communication. 3 Credits.** (3 Lec)F,S,Su

This class focuses on developing skills for interpersonal and group communication in a professional environment. Students will develop a professional resume and cover letter, conduct an interview, and learn how to communicate professionally with co-workers, supervisors, and customers. The class explores diversity in the workplace, nonverbal communication, influence, technical communication, and managing workplace conflict.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11386	001	First Half Session	-	-	-

## CS - Computer Science

**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
2017 Summer Session	10649	801	Second Half Session	-	-	-
2017 Summer Session	10650	002	Second Half Session	TR	BARNAH254	12:30pm - 2:50pm
2017 Summer Session	10651	803	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
2017 Summer Session	11357	001	First Half Session	-	-	-

**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
2017 Summer Session	10928	001	Second Half Session	MTWRF	LINH234	1:45pm - 2:50pm
2017 Summer Session	10928	001	Second Half Session	MWF	BARNAH254	3:00pm - 5:20pm

**CSCI 112. Programming with C I. 3 Credits.** (2 Lec, 1 Lab) S

PREREQUISITE: CSCI 111 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
2017 Summer Session	10757	001	First Half Session	MTWR	ROBH312A	8:45am - 9:50am
2017 Summer Session	10757	001	First Half Session	TR	BARNAH254	10:00am - 12:20pm

**CSCI 132. Basic Data Structures and Algorithms. 4 Credits.** (3 Lec, 1 Lab) F,S

PREREQUISITE: CSCI 111 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
2017 Summer Session	10929	001	First Half Session	MWF	BARNAH254	10:00am - 12:20pm
2017 Summer Session	10929	001	First Half Session	MTWRF	WIL1123	12:30pm - 1:35pm

**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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10930	001	First Half Session	MTWR	GH043	1:45pm - 2:50pm
2017 Summer Session	10930	001	First Half Session	TR	GH043	3:00pm - 4:05pm

**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
2017 Summer Session	10592	001	Second Half Session	MTWRF	GH030	8:45am - 9:50am
2017 Summer Session	10592	001	Second Half Session	MWF	BARNAH254	10:00am - 12:20pm

**CSCI 246. Discrete Structures. 3 Credits.** (3 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 contradiction.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11356	001	First Half Session	MTR	ROBH102	4:15pm - 6:35pm

**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
2017 Summer Session	11268	001	First Half Session	MTWR	BARNAH129	10:00am - 11:40am

**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
2017 Summer Session	11358	001	First Half 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
2017 Summer Session	11209	001	Non-standard term dates 17-JUL-17 21-JUL-17	-	-	-
2017 Summer Session	11382	801	Non-standard term dates 17-JUL-17 21-JUL-17	-	-	-

**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
2017 Summer Session	10101	001	Full Semester	-	-	-

## ECHM - Chemical Engineering

**ECHM 321. Chemical Engineering Fluid Mechanics Operations. 3 Credits.** (3 Lec) S

PREREQUISITE: ECHM 201 and M 172Q. COREQUISITE: M 274Q. Theory and equipment for fundamental chemical and biological engineering operations involving fluid mechanics. Equipment design and computations of operational rates.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11408	001	Second Half Session	TWR	ROBH412	11:00am - 12:00pm
2017 Summer Session	11408	001	Second Half Session	TWR	ROBH412	1:00pm - 2:15pm

## ECNS - Economics

**ECNS 202. Principles of Macroeconomics. 3 Credits.** (3 Lec) F,S,Su

PREREQUISITE: ECNS 101. COREQUISITE: M 121. 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
2017 Summer Session	10409	001	First Half Session	TWR	LINH234	8:45am - 11:05am

**ECNS 204IS. Microeconomics. 3 Credits.** (3 Lec) F,S

SU PREREQUISITE: ECNS 101, M 121. 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
2017 Summer Session	10554	001	Second Half Session	TWR	LINH109	3:00pm - 5:20pm
2017 Summer Session	11245	801	Full Semester	-	-	-

## 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
2017 Summer Session	10645	801	Intersession	-	-	-
2017 Summer Session	11284	802	Full Semester	-	-	-

### 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
2017 Summer Session	10490	801	Intersession	-	-	-

### 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
2017 Summer Session	10491	801	Intersession	-	-	-

### EDCI 536. Construction of Curriculum. 3 Credits. (3 Lec) On Demand

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
2017 Summer Session	11354	801	Intersession	-	-	-

### EDCI 537. Contemporary Issues in Science Education. 2 Credits. (2 Lec) On Demand

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
2017 Summer Session	11246	801	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

### 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
2017 Summer Session	11240	801	Intersession	-	-	-
2017 Summer Session	11279	802	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

### EDCI 546. School Library Media Specialist. 3 Credits. (3 Lec) Su

PREREQUISITE: EDU 370 or equivalent and 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
2017 Summer Session	10435	801	Non-standard term dates 15-MAY-17 21-JUL-17	-	-	-

### EDCI 548. Management of Information & Resources. 3 Credits. (3 Lec) Su

PREREQUISITE: EDU 370 or equivalent and 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
2017 Summer Session	10531	801	Non-standard term dates 15-MAY-17 21-JUL-17	-	-	-
2017 Summer Session	11200	802	Non-standard term dates 15-MAY-17 21-JUL-17	-	-	-

### EDCI 554. Curriculum Design, Pedagogy, & Assessment. 3 Credits. (3 Lec) On Demand

This is a course on the pedagogical dimensions of schooling. We cover practical strategies for the design and implementation of curriculum, the design and effective uses of evaluation, alignment of curriculum and assessments with standards, and strategies for meeting the needs of all learners by means of appropriate accommodations, adjustments, and interventions. This course integrates the topics of curriculum design, pedagogy, and assessment.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11241	801	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

### EDCI 555. Technology, Instructional Design, and Learner Success. 3 Credits. (3 Lec) S

Instructional Media; Using Electronic Resources; Software for curriculum and Lesson design; using assessment as an instructional tool; techniques for engaging learners in diverse instructional media; Classroom record keeping systems.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11237	801	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

### EDCI 557. Brain Science, Educational Research, and Teaching. 3 Credits. (3 Lec) Su

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
2017 Summer Session	11236	801	Non-standard term dates 08-MAY-17 30-JUN-17	-	-	-
2017 Summer Session	11280	802	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**EDCI 559. Internship: Equity, Special Needs, and Diversity. 3 Credits.** (3 Lec) F  
This course focuses on the practical implementation of professional knowledge, skills, and dispositions in the social dimensions of teaching, knowing how to manage a classroom and development an effective learning community. It provides a research and classroom based study of equity; special education laws, theory and practice; diversity, directing theory into practice; and meeting national, state and local standards.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11239	801	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11238	801	Non-standard term dates 08-MAY-17 30-JUN-17	-	-	-

**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
2017 Summer Session	10553	001	Intersession	-	-	-

**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
2017 Summer Session	11201	801	Non-standard term dates 15-MAY-17 21-JUL-17	-	-	-

**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
2017 Summer Session	11272	851	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11273	852	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11285	853	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11140	801	Intersession	-	-	-
2017 Summer Session	11396	802	Intersession	-	-	-

**EDCI 604. Advanced Educational Psychology. 3 Credits.** (3 Lec)S

PREREQUISITES: Graduate standing or permission of the instructor. An examination of theory and research related to the diverse learning and motivation needs of K-12 students. Practical implications for effective teaching will be identified throughout the course.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11025	001	Full Semester	-	-	-

## EDEC - Early Childhood Education

**EDEC 491. Special Topics. 3 Credits.** (3 Lec) Su

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
2017 Summer Session	11404	001	First Half Session	T	HH307	12:30pm - 4:05pm

**EDEC 496. Early Childhood Advanced Practicum. 3-6 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
2017 Summer Session	10886	001	First Half Session	M	HH210C	12:10pm - 1:00pm

## EDLD - Education Leadership

**EDLD 501. Foundations of Adult Education. 3 Credits.** (3 Lec) On Demand  
PREREQUISITE: Graduate standing. This course provides a study of the field of profession of adult education as a part of life-long learning. Professionalism in adult education is approached through the study of historical and philosophical foundations, providers and programs, and teaching strategies appropriate for adult education settings.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11242	001	Second Half Session	-	-	-

**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
2017 Summer Session	11167	001	Intersession	-	REID425	-
2017 Summer Session	11168	002	Intersession	-	REID425	-
2017 Summer Session	11329	003	Intersession	-	-	-



**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
2017 Summer Session	11169	001	Intersession	-	REID301	-
2017 Summer Session	11170	002	Intersession	-	REID301	-
2017 Summer Session	11328	003	Intersession	-	-	-

**EDLD 531. Theoretical Foundations of Student Services. 3 Credits.** (3 Lec) On Demand

PREREQUISITE: Graduate standing. This course will introduce the theories which have been advanced regarding college students and the professional practice of student affairs. The course will examine the similarities and differences among college students and the impact which different environments and policies may have on student psycho-social development, learning attitudes, values, behaviors, and satisfaction with college.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10950	001	Intersession	-	-	-

**EDLD 555. School Finance. 3 Credits.** (3 Lec) S

PREREQUISITE: Graduate standing. This course prepares school leaders to identify and analyze sources of fiscal and non-fiscal revenue and resources for schools and school districts, to manage financial and material assets, to develop an efficient budget planning process, and to perform a variety of budget management functions. Course emphasis is on Montana school finance.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11163	001	Intersession	-	-	-
2017 Summer Session	11164	002	First Half Session	-	-	-

**EDLD 564. The Comprehensive Portfolio. 3 Credits.** (3 Lec) Su, On Demand

PREREQUISITE: Consent of Instructor. Students create a professional portfolio to evidence their vision of learning, the culture of teaching and learning, community/school relationships, and the social, cultural, ethical, legal, political, and economic context of schooling.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10498	001	Intersession	-	-	-
2017 Summer Session	10734	003	Intersession	-	-	-

**EDLD 565. K-12 Instructional Leadership. 3 Credits.** (3 Lec) Su

COREQUISITES: 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
2017 Summer Session	11165	001	First Half Session	-	REID126	-
2017 Summer Session	11166	002	First Half Session	-	REID126	-

**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
2017 Summer Session	10499	001	Intersession	-	-	-

**EDLD 616. Organization and Administration of Higher Education. 3 Credits.** (3 Lec) On Demand

PREREQUISITE: Graduate standing. In this course students will examine the different organizational structures that characterize and govern American higher education. In this introduction to the field of higher education governance, organization and change structures and influences will be examined.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11022	001	Full Semester	-	-	-

**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
2017 Summer Session	11159	001	Intersession	-	-	-

**EDLD 643. Leading Social Justice. 3 Credits.** (3 Lec) Su

PREREQUISITE: Master's degree or consent of instructor. This course provides a framework for inclusive leadership. Students evaluate the relationship among privilege, power, and educational equity from a variety of perspectives. Critical theory will be stressed in examining the complexities of diversity and its impact on organizational leadership.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11158	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11160	001	First Half Session	-	REID223	-

**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
2017 Summer Session	11161	001	First Half Session	-	REID223	-

**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
2017 Summer Session	11162	002	First Half Session	-	REID223	-



## 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
2017 Summer Session	10853	001	First Half Session	MTW	WIL1117	8:30am - 11:30am

## EDU - Education

**EDU 263. Teaching Grammar Thru Writing. 3 Credits.** (3 Lec) F,S

This course explores the structure and function of the English language. In particular, study of grammar including the eight parts of speech, types of phrases and clauses, sentence structure and fluency, word usage, and other language conventions will be addressed.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10732	001	Full Semester	-	-	-

**EDU 330. Emergent Literacy. 3 Credits.** (3 Lec) F,S,Su alternate years

to be offered even years PREREQUISITE: EDU 222IS or 223IS and Junior standing. Current theory concerning emergent literacy and developmentally appropriate classroom practices. Emphasis is on a balanced approach which includes phonics and other cue systems, use of authentic children's literature, and use of programmed reading materials.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10733	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**EDU 332. Lit and Arts in Context. 9 Credits.** (3 Lec, 6 Lab) Su

Study of British and French literature for children is integrated with experiences in the arts. The course includes a three-week trip to England and France where participants will visit historical sites and see performances that bring stories to life.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10884	001	Non-standard term dates 08-MAY-17 05-JUN-17	-	-	-

**EDU 342. Managing the Learning Envir. 3 Credits.** (3 Lec) F,S

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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10867	001	Non-standard term dates 12-MAY-17 02-JUN-17	-	-	-
2017 Summer Session	11157	002	Non-standard term dates 15-MAY-17 04-AUG-17	-	REID223	-

**EDU 370. Integrating Tech into Educ. 2 Credits.** (1 Lec, 1 Lab) F,S,Su

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
2017 Summer Session	10489	801	Non-standard term dates 08-MAY-17 30-JUN-17	-	-	-
2017 Summer Session	10927	802	Full Semester	-	-	-

**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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10741	001	Non-standard term dates 08-MAY-17 02-JUN-17	F	REID126	12:00pm - 2:00pm
2017 Summer Session	10741	001	Non-standard term dates 08-MAY-17 02-JUN-17	T	REID126	2:30pm - 4:00pm
2017 Summer Session	10742	002	Non-standard term dates 08-MAY-17 20-JUN-17	MWR	-	8:00am - 4:00pm
2017 Summer Session	10742	002	Non-standard term dates 08-MAY-17 20-JUN-17	F	REID124	12:00pm - 2:00pm
2017 Summer Session	10742	002	Non-standard term dates 08-MAY-17 20-JUN-17	T	REID124	2:30pm - 4:00pm

**EDU 397. Methods. 3 Credits.** (2 Lec, 1 Lab; 25 cr max)

PREREQUISITE: EDU 283 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10743	002	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	10744	003	Non-standard term dates 10-JUL-17 03-AUG-17	MTWR	REID124	12:30pm - 3:30pm
2017 Summer Session	11259	050	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11401	001	Non-standard term dates 05-JUN-17 29-JUN-17	MTWR	REID124	8:30am - 11:30am
2017 Summer Session	11402	004	Non-standard term dates 10-JUL-17 03-AUG-17	MTWR	REID124	8:30am - 11:30am

**EDU 408. Professional Issues: K-12. 2 Credits.** (2 Lec) F,S

PREREQUISITE: Senior standing, completion of all coursework, and good standing in Teacher Education Program. Overview of salient issues to include applied evaluation, classroom management and discipline, cooperative learning, law, contracts, certification, professional organizations, ethics, resume, job seeking, and professionalism.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11247	801	Full Semester	-	-	-

**EDU 438. Ltrcy Asmnt, Diagnos and Instr. 3 Credits.** (2 Lec, 1 Lab) F,S  
 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
2017 Summer Session	11045	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**EDU 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, 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
2017 Summer Session	11156	801	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**EDU 495. Student Teaching. 5-16 Credits.** (5-16 Ind; 16 cr max) F,S,Su  
 5-16 cr. IND PREREQUISITE: Senior standing, completion of all required coursework, and good standing in Teacher Education Program. Observation and teaching in a classroom setting; preparation and delivery of lesson plans, and teacher work sample. The student teaching experience will occur under the supervision of experience teachers and MSU field supervisors.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10637	001	Full Semester	-	-	-

**EDU 497. Methods. 3 Credits.** (2 Lec, 1 Lab; 20 cr max)  
 PREREQUISITE: EDU 382, 20 or more credits in subject area, and good standing in the Teacher Education Program. This course is divided into multiple sections that cover specific secondary content areas. Sections include 5-12 Ag & Tech Ed, 5-12 Art, 5-12 English, 5-12 Social Studies, 5-12 Family and Consumer Sciences, 9-12 Mathematics, 5-12 Health Enhancement, and 5-12 Science. Students learn best practices for teaching in each content area, research based instructional strategies, methods for teaching and evaluating, and curriculum design and planning.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11323	010	Full Semester	-	-	-

**EDU 602. Educational Statistics II. 3 Credits.** (3 Lec) Su  
 PREREQUISITE: EDCI 501. The application of statistical processes to the analysis of educational data. Educational problems that apply multifactor ANOVA, multiple comparison techniques, ANCOVA, multiple regression, and factor analysis in their solution are included.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11024	001	Full Semester	-	-	-

**EDU 607. Quantitative Educational Research. 3 Credits.** (3 Lec) F  
 PREREQUISITES: EDCI 502, EDCI 506, and graduate standing. This course explores the implications of and application of the quantitative research paradigm to systematic inquiry within the field of education. The course includes quantitative designs, design-related data collection and management methodologies, appropriate data analysis and writing strategies, and the role of quantitative research in decision-support. Students will plan and complete a quantitative research project. Course will address responsible conduct of research.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11243	002	Full Semester	-	-	-

**EDU 650. Dissertation Seminar. 1-3 Credits.** (3 Sem) F  
 PREREQUISITES: Doctoral standing and instructor approval. This course is designed to help students prepare their dissertation proposal.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11023	001	Full Semester	-	-	-

## 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
2017 Summer Session	10724	001	First Half Session	MTWR	ROBH319	9:00am - 11:00am
2017 Summer Session	10725	002	First Half Session	F	COBH602	9:00am - 12:00pm

**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
2017 Summer Session	11248	801	Full Semester	-	-	-

**EELE 591. Special Topics. 1-4 Credits.** (1-4 Lab; 12 cr max)  
 -- Special Topics.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11211	001	Non-standard term dates 10-JUL-17 14-JUL-17	-	-	-

## 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
2017 Summer Session	10276	001	First Half Session	MTWR	ROBH307	10:00am - 11:05am
2017 Summer Session	10276	001	First Half Session	TR	ROBH307	3:00pm - 4:05pm
2017 Summer Session	10706	802	First Half Session	-	-	-

**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
2017 Summer Session	10437	001	First Half Session	MTWR	ROBH307	8:00am - 9:40am
2017 Summer Session	10707	802	First Half Session	-	-	-

**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 or 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
2017 Summer Session	10759	001	First Half Session	MTWR	ROBH210	8:00am - 9:40am

**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
2017 Summer Session	10455	001	Second Half Session	TR	ROBH210	7:55am - 9:55am
2017 Summer Session	10455	001	Second Half Session	MW	ROBH307	8:00am - 9:15am
2017 Summer Session	10708	802	Second Half Session	-	-	-

**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
2017 Summer Session	10773	001	Second Half Session	MTWR	ROBH301	8:00am - 9:40am

**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 a multi-disciplinary environment.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10869	001	First Half Session	MTWR	JABS111	2:00pm - 3:40pm
2017 Summer Session	11188	002	First Half Session	-	-	-

**EGEN 325. Engineering Economic Analysis. 3 Credits.** (3 Lec) S  
**PREREQUISITE:** Junior standing, M 171Q or M 165Q, or instructor approval. Methods for comparing and evaluating capital investment alternatives. Concepts include the time value of money, rates of return, cash flows, incremental analysis, depreciation, influences of taxes, inflation and deflation, depreciation, replacement analysis. Emphasis is placed upon evaluating various engineering alternatives. Some open-ended design problems are included.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10157	001	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
2017 Summer Session	11407	001	First Half Session	TR	ROBH208	11:15am - 12:20pm
2017 Summer Session	11407	001	First Half Session	MW	ROBH208	11:15am - 1:35pm

**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
2017 Summer Session	10751	802	Second Half Session	-	-	-
2017 Summer Session	11089	801	Second Half Session	-	-	-

**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
2017 Summer Session	10296	001	First Half Session	MTWR	ROBH210	10:00am - 11:05am

## 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
2017 Summer Session	11269	001	First Half Session	MTWR	ROBH312A	10:00am - 11:40am

## EMEC - Mechanical Engineering

**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
2017 Summer Session	11003	001	First Half Session	MW	BARNAH134	8:00am - 9:05am
2017 Summer Session	11003	001	First Half Session	TR	BARNAH134	8:00am - 11:00am
2017 Summer Session	11003	001	First Half Session	MW	BARNAH134	9:06am - 11:00am

## 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
2017 Summer Session	10912	001	First Half Session	MTW	GH030	8:45am - 11:05am
2017 Summer Session	10913	002	First Half Session	MW	GH145	11:15am - 1:05pm

**ERTH 516. North Rocky Mtn Geology. 2 Credits.** (1 Lab) Su  
**PREREQUISITE:** EARTH 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
2017 Summer Session	11213	001	Non-standard term dates 19-JUN-17 23-JUL-17	-	-	-

**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
2017 Summer Session	11264	850	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11137	801	Full Semester	-	-	-
2017 Summer Session	11138	802	Full Semester	-	-	-
2017 Summer Session	11139	803	Intercession	-	-	-
2017 Summer Session	11355	804	Non-standard term dates 23-JUL-17 28-JUL-17	-	-	-

**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
2017 Summer Session	11212	001	Non-standard term dates 24-JUN-17 24-JUN-17	S	-	-

## FCS - Family and Consumer Sciences

**FCS 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
2017 Summer Session	10460	802	First Half Session	-	-	-
2017 Summer Session	10534	801	First Half Session	-	-	-

**FCS 219. Apparel Construction. 3 Credits.** (1 Lec, 2 Lab) S

Alternate Odd Years PREREQUISITE: Family and Consumer Sciences Education students only. Students will learn how to construct basic apparel. Emphasis will be placed on pattern reading and state-of-the-art construction techniques. A second emphasis will be on pedagogy techniques related to the construction of apparel and other items.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11361	001	Second Half Session	-	-	-

**FCS 261. Adult Development and Aging. 3 Credits.** (3 Lec) S

PREREQUISITE: FCS 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
2017 Summer Session	11007	801	First Half Session	-	-	-

**FCS 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
2017 Summer Session	10595	801	First Half Session	-	-	-

**FCS 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10584	802	Non-standard term dates 08-MAY-17 21-JUL-17	-	-	-
2017 Summer Session	11092	801	Intercession	-	-	-

**FCS 454. Professional Issues - Senior Seminar. 4 Credits.** (1 Lec, 3 Lab) S,Su

PREREQUISITE: FCS 371 and screening procedures as specified by instructor. Senior capstone course. Establishing a professional identity and transitioning to a career in the field of early childhood education and child services and human development and family science. The lab section of this course will entail the scientific application of family and consumer sciences theory and methods. In consultation with course instructor, students will participate in a lab assignment.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10860	001	Full Semester	-	-	-
2017 Summer Session	10861	002	Full Semester	-	-	-
2017 Summer Session	10862	003	Full Semester	-	-	-

**FCS 461. Principles Wellbeing in Aging. 3 Credits.** (3 Lec) Su

PREREQUISITE: Completion of 12-credits of coursework in the online gerontology. This class will explore the theoretical foundations of wellbeing. Students will work to understand and analyze the interconnectedness of the dimensions of wellbeing with older adults, family units and family relationships.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11111	801	Second Half Session	-	-	-

**FCS 465R. Family Law & Public Policy. 3 Credits.** (3 Lec) F

PREREQUISITE: FCS 263, FCS 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
2017 Summer Session	11093	801	First Half Session	-	-	-

**FCS 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
2017 Summer Session	11409	001	Full Semester	R	WIL1142	8:45am - 9:50am

**FCS 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
2017 Summer Session	10863	001	Intercession	-	-	-

**FCS 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
2017 Summer Session	11338	850	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

## FILM - Film & Photography

**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
2017 Summer Session	10959	001	First Half Session	R	VCB182	9:00am - 1:00pm
2017 Summer Session	10959	001	First Half Session	T	VCB182	9:00am - 1:00pm
2017 Summer Session	11416	002	Second Half Session	MW	VCB182	12:30pm - 2:30pm
2017 Summer Session	11416	002	Second Half Session	MW	VCB182	2:35pm - 4:00pm

**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
2017 Summer Session	10647	001	Full Semester	-	-	-

**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
2017 Summer Session	10872	001	Full Semester	-	-	-

**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
2017 Summer Session	10648	001	Second Half Session	-	-	-
2017 Summer Session	11417	002	Second Half Session	TR	VCB148	6:00pm - 10:00pm

**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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10874	001	Full Semester	-	-	-
2017 Summer Session	10916	002	Full Semester	-	-	-
2017 Summer Session	10917	003	Full Semester	-	-	-
2017 Summer Session	11154	004	Full Semester	-	-	-

## GDSN - Graphic Design

**GDSN 360. Yellowstone Digital. 3 Credits.** (3 Lab) Su

PREREQUISITE: GDSN 224 or ARTZ 211 or MTA 265 or ARCH 261. 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
2017 Summer Session	10726	001	Non-standard term dates 12-JUN-17 17-JUN-17	MTWRF	-	8:00am - 5:00pm

**GDSN 361. Teton Digital. 3 Credits.** (3 Lec) Su

PREREQUISITE: GDSN 224, ARTZ 211, or MTA 260, or ARCH 261. 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
2017 Summer Session	10727	001	Non-standard term dates 10-JUL-17 15-JUL-17	MTWRF	-	8:00am - 5:00pm

**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
2017 Summer Session	10644	001	Non-standard term dates 15-MAY-17 01-JUN-17	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
2017 Summer Session	11378	001	First Half Session	TR	GH053	9:00am - 10:15am
2017 Summer Session	11378	001	First Half Session	TR	GH053	1:00pm - 2:50pm



**GEO 419. Field Paleontology. 2 Credits.** (1 Lec, 1 Lab) Su alternate years, to be offered even years.

**PREREQUISITE:** GEO 208. 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
2017 Summer Session	11186	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**GEO 429R. Field Geology. 6 Credits.** (6 Lab) Su

**PREREQUISITE:** EARTH 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
2017 Summer Session	10914	001	First Half Session	-	-	-
2017 Summer Session	11337	002	First Half 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
2017 Summer Session	11214	001	Non-standard term dates 26-JUN-17 01-JUL-17	-	-	-

## 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
2017 Summer Session	10371	001	First Half Session	MTR	REID104	12:30pm - 2:50pm

**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
2017 Summer Session	10941	001	First Half Session	MTW	ROM104	8:30am - 10:00am
2017 Summer Session	10941	001	First Half Session	MW	TRAP201	10:30am - 12:30pm

## GRMN - German

**GRMN 101. Elementary German I. 3 Credits.** (3 Lec)

**NOTE:** Offered on a rotating basis with French and Spanish in Summer. An elementary level course designed to help students acquire basic proficiency in communication 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
2017 Summer Session	11367	001	First Half Session	MWF	GH243	10:00am - 12:20pm

**GRMN 102D. Elementary German II. 3 Credits.** (3 Lec)

**PREREQUISITE:** GRMN 101 or equivalent, or two years of high school German. Offered on a rotating basis with French 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
2017 Summer Session	11368	001	Second Half Session	MWF	JABS305	10:00am - 12:20pm

**GRMN 193. Study Abroad. 12 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11307	001	Full Semester	-	-	-

**GRMN 293. Study Abroad. 12 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11308	001	Full Semester	-	-	-

**GRMN 393. Study Abroad. 12 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11309	001	Full Semester	-	-	-

**GRMN 440IH. German Cultural Studies. 3 Credits.** (3 Lec)

**PREREQUISITE:** None. 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
2017 Summer Session	11381	801	First Half Session	-	-	-

**GRMN 493. Study Abroad. 12 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11310	001	Full Semester	-	-	-

## 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10480	001	Second Half Session	M	HH314	2:00pm - 5:00pm

**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
2017 Summer Session	10481	001	Second Half Session	MTW	WIL1153	8:45am - 11:05am

**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
2017 Summer Session	10482	001	Second Half Session	W	HH314	8:00am - 12:00pm



**HDCO 524. Consultation and Crisis: 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
2017 Summer Session	11094	001	First Half Session	M	WIL1138	9:00am - 12:00pm

**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
2017 Summer Session	10483	001	Second Half Session	R	JABS311	7:30am - 8:50am
2017 Summer Session	10483	001	Second Half Session	R	ROM304	9:00am - 12:20pm

**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
2017 Summer Session	10484	001	Second Half Session	W	HH314	1:00pm - 5:00pm

**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
2017 Summer Session	11362	001	First Half Session	W	HH314	8:00am - 11:00am

**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
2017 Summer Session	10485	001	Second Half Session	T	HH314	2:00pm - 5:00pm

## HORT - Horticulture & Landscape Des

**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
2017 Summer Session	10548	001	First Half Session	MWF	HORTFARM	7:30am - 11:05am

**HORT 491. Special Topics. 1-4 Credits.** (1 Ind; 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10966	001	First Half Session	-	-	-

## HSTA - History-American

**HSTA 102IH. American History II. 4 Credits.** (3 Lec) F,S  
 An examination of the United States after the Civil War through the 20th Century.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11100	801	First Half Session	-	-	-

**HSTA 160D. Introduction to the Am West. 4 Credits.** (3 Lec) even years  
 AlternateThe American West examines the conquest settlement and development of territory west of the Mississippi River.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11389	098	Second Half 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 World War II.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11101	801	First Half Session	-	-	-

## HSTR - History-World

**HSTR 101IH. Western Civilization I. 4 Credits.** (3 Lec) 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
2017 Summer Session	10413	801	First Half 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
2017 Summer Session	11102	801	First Half Session	-	-	-

**HSTR 436. Armed Conflict Mod Latin Amer. 3 Credits.** (3 Lec) Su  
**PREREQUISTIE:** HSTR 130 or HSTR 102 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
2017 Summer Session	11000	801	First Half 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
2017 Summer Session	10596	801	First Half Session	-	-	-

**HTH 455. The Ethic of Care. 3 Credits.** (3 Lec) F,S,Su On Demand  
**PREREQUISITE:** FCS 101, 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
2017 Summer Session	10581	001	Non-standard term dates 15-MAY-17 26-MAY-17	F	HH117	7:30am - 11:05am
2017 Summer Session	10581	001	Non-standard term dates 15-MAY-17 26-MAY-17	MTWR	HH117	7:30am - 12:20pm

## 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
2017 Summer Session	11295	001	Full Semester	-	-	-

**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
2017 Summer Session	11296	001	Full Semester	-	-	-

**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
2017 Summer Session	11297	001	Full Semester	-	-	-

**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
2017 Summer Session	11406	001	Full Semester	T	-	2:00pm - 2:50pm

## 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
2017 Summer Session	11363	001	Intersession	-	-	-
2017 Summer Session	11398	801	Full Semester	-	-	-

**KIN 325R. Biomechanics. 4 Credits.** (3 Lec, 1 Lab) F,S  
**PREREQUISITE:** FCS 371, KIN 322, M 151 or M 161, and PHSX 205.  
**COREQUISITE:** 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
2017 Summer Session	11399	001	First Half Session	MTWRF	ROM203	9:00am - 10:15am
2017 Summer Session	11400	002	First Half Session	TR	ROM203	10:30am - 1:30pm

**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
2017 Summer Session	11112	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11364	003	First Half Session	-	-	-
2017 Summer Session	11365	002	First Half Session	-	-	-

## 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
2017 Summer Session	11176	801	First Half Session	-	-	-

## LIT - Literature

**LIT 110IH. Intro to Lit: Explorations in Literature. 3 Credits.** (3 Rct) 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
2017 Summer Session	10979	001	Second Half Session	MTR	WIL1121	8:00am - 9:50am

**LIT 169IH. Literature as Popular Culture. 3 Credits.** (3 Rec) S  
 An exploration of the interrelationship between high and low (popular) cultural traditions, emphasizing the social and artistic significance of popular cultural texts.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11392	801	Second Half Session	-	-	-

**LIT 202CS. The Environmental Imagination. 3 Credits.** (3 Rec) 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
2017 Summer Session	11393	801	First Half Session	-	-	-

**LIT 214D. Regional Literature. 3 Credits.** (3 Rct) F,S

Examination of American literary regions in the context of critical multiculturalism. Analyzes topics such as the development of local color writing, borderlands/transnational studies, and the concept of the frontier as contact zone. May focus on a specific regional literature or adopt a comparative approach.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10937	001	Second Half Session	-	-	-

**LIT 285D. Mythologies. 3 Credits.** (3 Rct) 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
2017 Summer Session	10547	801	First Half Session	-	-	-

**LIT 335. Women and Literature. 3 Credits.** (3 Rct) 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
2017 Summer Session	11177	801	Second Half 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
2017 Summer Session	11178	801	First Half Session	-	-	-

**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
2017 Summer Session	11395	801	Non-standard term dates 15-JUL-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11215	001	Non-standard term dates 26-JUN-17 30-JUN-17	MTWRF	GH144	8:00am - 9:50am
2017 Summer Session	11215	001	Non-standard term dates 26-JUN-17 30-JUN-17	MTWRF	GH143	10:00am - 5:00pm

**LRES 562. Land Rehab Field Problem. 2 Credits.** (2 Lab) Su alternate years, to be offered odd 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
2017 Summer Session	11090	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11217	001	Non-standard term dates 10-JUL-17 14-JUL-17	-	-	-

**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
2017 Summer Session	11141	801	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11199	802	Intercession	-	-	-
2017 Summer Session	11218	003	Non-standard term dates 12-JUN-17 16-JUN-17	-	-	-

**LS-Liberal Studies****LS 101US. 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
2017 Summer Session	11145	801	Second Half Session	-	-	-
2017 Summer Session	11384	802	First Half 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
2017 Summer Session	11146	802	First Half 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
2017 Summer Session	11339	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	10453	001	First Half Session	MTWR	HAM228	8:45am - 9:50am
2017 Summer Session	10453	001	First Half Session	MTWR	HAM228	10:00am - 11:05am
2017 Summer Session	10900	002	Second Half Session	MTWR	HAM228	8:45am - 9:50am
2017 Summer Session	10900	002	Second Half Session	MTWR	HAM228	10:00am - 11:05am
2017 Summer Session	11340	099	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11232	001	First Half Session	MTR	WIL1144	10:00am - 11:05am
2017 Summer Session	11232	001	First Half Session	MTR	WIL1144	11:15am - 12:20pm
2017 Summer Session	11233	002	Second Half Session	MTR	WIL1119	10:00am - 11:05am
2017 Summer Session	11233	002	Second Half Session	MTR	WIL1119	11:15am - 12:20pm
2017 Summer Session	11234	801	Second Half Session	-	-	-

**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
2017 Summer Session	10594	001	First Half Session	MTR	WIL1144	7:30am - 8:35am
2017 Summer Session	10594	001	First Half Session	MTR	WIL1144	8:45am - 9:50am
2017 Summer Session	10745	003	Second Half Session	MTR	GH243	7:30am - 8:35am
2017 Summer Session	10745	003	Second Half Session	MTR	GH243	8:45am - 9:50am
2017 Summer Session	10964	002	First Half Session	MTR	WIL1122	7:30am - 8:35am
2017 Summer Session	10964	002	First Half Session	MTR	WIL1122	8:45am - 9:50am
2017 Summer Session	11189	801	First Half Session	-	-	-
2017 Summer Session	11190	802	Second Half Session	-	-	-
2017 Summer Session	11342	004	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**M 133Q. Geometry & Measure K-8 Teachers. 3 Credits.** (3 Lec) F,S

PREREQUISITE: 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
2017 Summer Session	11369	001	First Half Session	MWF	WIL1133	11:00am - 11:50am

**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
2017 Summer Session	10352	001	First Half Session	MTWR	WIL1131	10:00am - 11:05am
2017 Summer Session	10352	001	First Half Session	MTWR	WIL1131	11:15am - 12:20pm
2017 Summer Session	10353	002	Second Half Session	MTWR	ROBH208	10:00am - 11:05am
2017 Summer Session	10353	002	Second Half Session	MTWR	ROBH208	11:15am - 12:20pm
2017 Summer Session	11191	801	First Half Session	-	-	-
2017 Summer Session	11341	003	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	10354	001	First Half Session	MTWR	WIL1143	7:30am - 8:35am
2017 Summer Session	10354	001	First Half Session	MTWR	WIL1143	8:45am - 9:50am
2017 Summer Session	10355	002	First Half Session	MTWR	WIL1139	7:30am - 8:35am
2017 Summer Session	10355	002	First Half Session	MTWR	WIL1139	8:45am - 9:50am
2017 Summer Session	11192	801	First Half Session	-	-	-
2017 Summer Session	11193	003	Second Half Session	MTWR	LINH301	7:30am - 8:35am
2017 Summer Session	11193	003	Second Half Session	MTWR	LINH301	8:45am - 9:50am
2017 Summer Session	11194	802	Second Half Session	-	-	-

**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
2017 Summer Session	10356	001	First Half Session	MTWR	WIL1134	7:30am - 8:35am
2017 Summer Session	10356	001	First Half Session	MTWR	WIL1134	8:45am - 9:50am
2017 Summer Session	10357	002	First Half Session	MTWR	WIL1131	7:30am - 8:35am
2017 Summer Session	10357	002	First Half Session	MTWR	WIL1131	8:45am - 9:50am
2017 Summer Session	10714	003	Second Half Session	MTWR	WIL1130	7:30am - 8:35am
2017 Summer Session	10714	003	Second Half Session	MTWR	WIL1130	8:45am - 9:50am

**M 172Q. Calculus II. 4 Credits.** (4 Lec) F,S,Su

PREREQUISITE: M 171Q. Methods of integration, applications of the integral, Taylor's theorem, infinite sequences and series, polar coordinates. COMMON EXAMS.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10358	001	First Half Session	MTWR	WIL1142	10:00am - 11:05am
2017 Summer Session	10358	001	First Half Session	MTWR	WIL1142	11:15am - 12:20pm
2017 Summer Session	10359	002	First Half Session	MTWR	WIL1124	10:00am - 11:05am
2017 Summer Session	10359	002	First Half Session	MTWR	WIL1124	11:15am - 12:20pm
2017 Summer Session	10715	003	Second Half Session	MTWR	WIL1130	10:00am - 11:05am
2017 Summer Session	10715	003	Second Half Session	MTWR	WIL1130	11:15am - 12:20pm
2017 Summer Session	11195	004	Second Half Session	MTWR	WIL1134	10:00am - 11:05am
2017 Summer Session	11195	004	Second Half Session	MTWR	WIL1134	11:15am - 12:20pm

**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
2017 Summer Session	10173	001	First Half Session	MTR	WIL1130	10:00am - 11:05am
2017 Summer Session	10173	001	First Half Session	MTR	WIL1130	11:15am - 12:20pm
2017 Summer Session	11258	002	Second Half Session	MTR	WIL1144	10:00am - 11:05am
2017 Summer Session	11258	002	Second Half Session	MTR	WIL1144	11:15am - 12:20pm

**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
2017 Summer Session	10360	001	First Half Session	MTWR	WIL1121	7:30am - 8:35am
2017 Summer Session	10360	001	First Half Session	MTWR	WIL1121	8:45am - 9:50am
2017 Summer Session	10443	002	Second Half Session	MTWR	WIL1131	7:30am - 8:35am
2017 Summer Session	10443	002	Second Half Session	MTWR	WIL1131	8:45am - 9:50am

**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
2017 Summer Session	10174	001	First Half Session	MTWR	WIL1116	10:00am - 11:05am
2017 Summer Session	10174	001	First Half Session	MTWR	WIL1116	11:15am - 12:20pm
2017 Summer Session	10175	002	Second Half Session	MTWR	WIL1142	10:00am - 11:05am
2017 Summer Session	10175	002	Second Half Session	MTWR	WIL1142	11:15am - 12:20pm

**M 419. Ratio and Proportion in School Mathematics. 3 Credits.** (3 Lec) Su

alternate years, to be offered odd years.

PREREQUISITE: For undergraduate credit: M 242 or M 234 and 3 credits from the elementary math option. 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
2017 Summer Session	11411	001	Non-standard term dates 26-JUN-17 15-JUL-17	MTWRF	WIL1133	9:30am - 10:45am
2017 Summer Session	11411	001	Non-standard term dates 26-JUN-17 15-JUL-17	MTWRF	WIL1133	4:00pm - 5:15pm

**M 424. Algebraic Thinking and Number Sense in the Middle Grades. 3 Credits.** (3 Lec) F

to be offered odd years. PREREQUISITE: M 234 or M 242, and corequisite EDU 382. 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
2017 Summer Session	11113	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11370	002	Non-standard term dates 26-JUN-17 15-JUL-17	-	-	-
2017 Summer Session	11371	001	Non-standard term dates 26-JUN-17 15-JUL-17	-	-	-

**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
2017 Summer Session	10334	801	Non-standard term dates 12-JUN-17 04-AUG-17	-	-	-



**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
2017 Summer Session	11412	001	Non-standard term dates 26-JUN-17 15-JUL-17	MTWRF	WIL1133	9:30am - 10:45am
2017 Summer Session	11412	001	Non-standard term dates 26-JUN-17 15-JUL-17	MTWRF	WIL1133	4:00pm - 5:15pm

**M 520. Standards-Based Math for Teachers. 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
2017 Summer Session	11372	801	Non-standard term dates 12-JUN-17 29-JUL-17	-	-	-

**M 523. Number Structure for Teaching. 3 Credits.** (3 Lec) Su, to be offered even years.

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
2017 Summer Session	11114	801	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**M 524. Linear Algebra for Teaching. 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
2017 Summer Session	11373	001	Non-standard term dates 26-JUN-17 15-JUL-17	MTWRF	WIL1133	8:15am - 9:30am
2017 Summer Session	11373	001	Non-standard term dates 26-JUN-17 15-JUL-17	MTWRF	WIL1133	2:15pm - 3:30pm

**M 526. Discrete Mathematics for Teachers. 3 Credits.** (3 Lec) Su

for two consecutive years; alternates with M 517 PREREQUISITE: Graduate standing in mathematics education, teaching endorsement in mathematics, or consent of instructor. A study of classical topics in discrete mathematics, chosen from combinatorics, probability, graph theory, and other areas relevant to secondary mathematics. Emphasis on problem solving and justification.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11115	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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 basis.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10177	001	Full Semester	-	-	-

**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
2017 Summer Session	10324	001	Full Semester	-	-	-

**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
2017 Summer Session	11028	850	Non-standard term dates 19-JUN-17 23-JUN-17	MTWRF	CHVR212	8:00am - 5:00pm

## 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
2017 Summer Session	10652	801	Second Half Session	-	-	-
2017 Summer Session	10653	002	Second Half Session	TR	BARNAH254	1:00pm - 3:00pm
2017 Summer Session	10654	803	Second Half Session	-	-	-

## MB - Microbiology

**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
2017 Summer Session	11142	801	Interession	-	-	-

**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 fundamentals of genetics. This course is intended for practicing teachers and those in the MSSE program.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11228	801	Interession	-	-	-



**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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11216	001	Non-standard term dates 26-JUN-17 30-JUN-17	-	-	-

**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
2017 Summer Session	11262	850	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11267	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	11390	801	Full Semester	-	-	-

**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
2017 Summer Session	10201	001	Full Semester	W	-	1:10pm - 2:00pm

**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
2017 Summer Session	10989	001	Full Semester	-	-	-

**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
2017 Summer Session	11031	001	First Half Session	-	-	-
2017 Summer Session	11031	001	First Half Session	MTWRF	LEWH306	10:00am - 2:50pm

**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
2017 Summer Session	11091	801	First Half Session	-	-	-

**ML 344. Instructional Perspectives. 1 Credit.** (1 Lec; 3 cr max)

Max 3 cr. PREREQUISITE: FRCH 323 or FRCH 324; GRMN 330 or GRMN 331; SPNS 323 or SPNS 324. 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
2017 Summer Session	10221	001	First Half Session	-	-	-
2017 Summer Session	10275	002	Second Half Session	-	-	-
2017 Summer Session	10310	003	Second Half Session	-	-	-

**MUSE - Music-Education**

**MUSE 530. Music, Society, Education. 3 Credits.** (3 Lec) Su alternate years, to be offered odd years.

PREREQUISITE: EDEL 410, EDSO 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
2017 Summer Session	10996	001	First Half 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11330	850	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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
2017 Summer Session	10601	001	Second Half 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
2017 Summer Session	10852	801	First Half Session	-	-	-
2017 Summer Session	10918	802	Second Half Session	-	-	-
2017 Summer Session	11299	803	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
2017 Summer Session	10998	001	First Half Session	MTWRF	HOWH184	11:15am - 12:35pm

**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
2017 Summer Session	11253	001	First Half Session	MTWR	HOWH102	8:45am - 9:50am

**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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11254	001	First Half Session	MTWR	HOWH184	10:00am - 11:05am

**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
2017 Summer Session	10746	801	First Half Session	-	-	-
2017 Summer Session	10997	802	First Half Session	-	-	-
2017 Summer Session	11015	803	Second Half Session	-	-	-

**MUSI 211IA. Masterworks in Music. 3 Credits.** (3 Lec) F,S

Presentation of examples of great music literature to develop informed, perceptive listening and musical understanding.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11255	801	Second Half Session	-	-	-

**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
2017 Summer Session	10590	801	First Half Session	-	-	-

**MUSI 348. Ensemble. 1 Credit.** (1 Lab) F,S,Su

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
2017 Summer Session	10225	002	Full Semester	MT	-	7:00pm - 9:00pm

**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
2017 Summer Session	10496	001	Intersession	-	-	-

**MUSI 495. Applied Music IV. 1-2 Credits.** (1-2 Stu) F,S,Su

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 three enrollments).

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10497	001	Intersession	-	-	-

**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
2017 Summer Session	11250	001	First Half 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
2017 Summer Session	10603	001	Full Semester	-	-	-

**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
2017 Summer Session	10602	001	Intersession	-	-	-

## 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
2017 Summer Session	11256	001	Full Semester	-	-	-

## NASX - Native American Studies

**NASX 105D. Intro Native Amer Studies. 3 Credits.** (2 Lec, 1 Rct) F,S

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
2017 Summer Session	10524	801	First Half Session	-	-	-
2017 Summer Session	11116	001	Second Half Session	MTWR	JABS305	12:30pm - 2:10pm

**NASX 232D. MT Indians: Cultures, Histories, Current Issues. 3 Credits.** (3 Lec) F,S

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
2017 Summer Session	10678	801	Second Half 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
2017 Summer Session	11117	801	Full Semester	-	-	-

**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
2017 Summer Session	11244	801	Full Semester	-	-	-

## 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
2017 Summer Session	10446	001	Full Semester	-	-	-
2017 Summer Session	10447	002	Full Semester	-	-	-
2017 Summer Session	10448	040	Full Semester	-	-	-
2017 Summer Session	10449	004	Full Semester	-	-	-
2017 Summer Session	10813	075	First Half Session	-	-	-
2017 Summer Session	10814	078	First Half 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
2017 Summer Session	10450	001	First Half Session	-	-	-
2017 Summer Session	10451	002	First Half Session	-	-	-
2017 Summer Session	10452	020	First Half Session	-	-	-
2017 Summer Session	10551	021	First Half Session	-	-	-
2017 Summer Session	10815	075	First Half Session	-	-	-
2017 Summer Session	10817	078	Second Half Session	-	-	-
2017 Summer Session	10818	079	Second Half Session	-	-	-
2017 Summer Session	10822	076	First Half Session	-	-	-

**NRSG 225. Fndtns Plng Prvding 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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10819	075	Second Half Session	-	-	-
2017 Summer Session	10820	076	Second Half Session	-	-	-
2017 Summer Session	10821	077	Second Half Session	-	-	-
2017 Summer Session	10823	078	Second Half Session	-	-	-
2017 Summer Session	10824	079	Second Half Session	-	-	-
2017 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	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10826	075	First Half Session	-	-	-
2017 Summer Session	10827	076	First Half Session	-	-	-
2017 Summer Session	10828	077	First Half Session	-	-	-
2017 Summer Session	10829	078	First Half Session	-	-	-
2017 Summer Session	10830	079	First Half Session	-	-	-
2017 Summer Session	10831	080	First Half 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	Time
2017 Summer Session	10832	075	Full Semester	-	-	-
2017 Summer Session	10833	078	Full Semester	-	-	-
2017 Summer Session	10919	040	Full Semester	-	-	-
2017 Summer Session	11004	001	Full Semester	-	-	-

**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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10834	075	Full Semester	-	-	-
2017 Summer Session	10835	076	Full Semester	-	-	-
2017 Summer Session	10836	077	Full Semester	-	-	-
2017 Summer Session	10837	078	Full Semester	-	-	-
2017 Summer Session	10838	079	Full Semester	-	-	-
2017 Summer Session	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
2017 Summer Session	10840	075	First Half Session	-	-	-
2017 Summer Session	10841	076	First Half Session	-	-	-
2017 Summer Session	10842	077	First Half Session	-	-	-
2017 Summer Session	10843	078	First Half Session	-	-	-
2017 Summer Session	10844	079	First Half Session	-	-	-
2017 Summer Session	10845	080	First Half Session	-	-	-
2017 Summer Session	11263	101	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**NRSG 454. Urgent and Palliative Care. 6 Credits.** (3 Lec, 3 Lab) F,S  
**PREREQUISITE:** NRSG 352. The focus of this course is application of theoretical and empirical knowledge to nursing care for complex clients across the adult lifespan requiring urgent and palliative care in a variety of settings. Clinical decision making, triage and symptom management are emphasized. This course builds upon and integrates knowledge gained from nursing, sciences and the humanities.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11275	078	First Half Session	-	-	-
2017 Summer Session	11276	079	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
2017 Summer Session	10987	001	First Half Session	-	-	-

**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
2017 Summer Session	10846	075	First Half Session	-	-	-
2017 Summer Session	10847	076	First Half Session	-	-	-
2017 Summer Session	10848	077	First Half Session	-	-	-
2017 Summer Session	10920	078	Full Semester	-	-	-
2017 Summer Session	10921	079	Full Semester	-	-	-
2017 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
2017 Summer Session	11187	801	Full Semester	-	-	-

**NRSG 487. Nursing Ldrshp/Mgmt 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 management of health care using the community based philosophy.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10849	075	Full Semester	-	-	-
2017 Summer Session	10850	076	Full Semester	-	-	-
2017 Summer Session	10851	077	Full Semester	-	-	-
2017 Summer Session	10923	078	Full Semester	-	-	-
2017 Summer Session	10924	079	Full Semester	-	-	-
2017 Summer Session	10925	080	Full Semester	-	-	-

**NRSG 503. Curriculum Development. 3 Credits.** (3 Lec) Su, alternate years to be offered Su even years. **PREREQUISITE:** Graduate Standing. Theories and models of curriculum development are explored and designed for nurses teaching in either academic or practice environments. Variables associated with design and planning of educational interventions are explored. Students synthesize appropriate theoretical concepts to develop a model curriculum.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11196	001	First Half Session	-	-	-

**NRSG 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
2017 Summer Session	10935	001	First Half 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
2017 Summer Session	10625	001	Full Semester	-	-	-

**NRSG 609. Adv Practice Nrsng Ldrshp. 2 Credits.** (2 Lec) Su

PREREQUISITE: NRSG 601, 602, 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
2017 Summer Session	10982	001	Full Semester	-	-	-

**NRSG 620. Adv Pharm II. 3 Credits.** (3 Lec) Su

PREREQUISITE: NRSG 601, 602, 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
2017 Summer Session	10983	001	Full Semester	-	-	-

**NRSG 621. Advanced Clinical I-Fl. 6 Credits.** (3 Lec, 3 Lab) Su

PREREQUISITE: 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
2017 Summer Session	10984	001	Full Semester	-	-	-

**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
2017 Summer Session	10933	001	Full Semester	-	-	-

**NRSG 630. Adv Psychopharm II. 3 Credits.** (2 Lec) Su

PREREQUISITE: NRSG 601, 602, 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
2017 Summer Session	10985	001	Full Semester	-	-	-

**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
2017 Summer Session	10986	001	Full Semester	-	-	-

**NRSG 633. Advanced Clinical III, Psych/Mental Health. 6 Credits.** (3 Lec, 3 Lab) Su

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
2017 Summer Session	10947	001	Full Semester	-	-	-

**NRSG 675. Professional Paper and Project. 1-6 Credits.** (1-6 Ind; 6 cr max) F,S,Su

PREREQUISITE: 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
2017 Summer Session	11006	001	Full Semester	-	-	-
2017 Summer Session	11197	002	Full Semester	-	-	-
2017 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	Time
2017 Summer Session	10676	802	Full Semester	-	-	-
2017 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
2017 Summer Session	11132	801	Full Semester	-	-	-

**NUTR 491. Special Topics. 1-4 Credits.** (1-4 Lec; 12 cr max) On Demand

PREREQUISITE: Course prerequisites as determined for each offering and consent of instructor. 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
2017 Summer Session	11235	801	Full Semester	-	-	-

**NUTR 524. Adolescent Nutrition. 2 Credits.** (2 Lec) S

This is an online course designed to provide teachers strategies for incorporating nutrition education into their curriculum. Course participants explore nutrition science relevant to adolescent health, gain exposure to quality education resources and investigate school wellness issues and strategies.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10556	801	Intercession	-	-	-

## 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
2017 Summer Session	11103	801	First Half Session	-	-	-
2017 Summer Session	11104	802	Second Half 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
2017 Summer Session	11107	801	First Half 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
2017 Summer Session	11105	801	First Half Session	-	-	-
2017 Summer Session	11106	802	Second Half Session	-	-	-

**PHL 322. Philosophy & Environmntl 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
2017 Summer Session	11108	801	First Half 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
2017 Summer Session	10868	801	Second Half 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
2017 Summer Session	10383	001	First Half Session	T	VCB148	9:00am - 11:20am
2017 Summer Session	10383	001	First Half Session	WR	VCB148	9:00am - 12:35pm

**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
2017 Summer Session	11155	801	First Half 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
2017 Summer Session	10880	001	Full Semester	-	-	-

**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
2017 Summer Session	10879	001	First Half Session	TWR	VCB150	9:00am - 11:30am

## 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
2017 Summer Session	10347	001	First Half Session	W	BARNAH103	7:30am - 8:35am
2017 Summer Session	10347	001	First Half Session	MTWRF	BARNAH103	8:45am - 9:50am
2017 Summer Session	10348	002	First Half Session	TR	AJM146	10:00am - 11:50am
2017 Summer Session	10349	003	First Half Session	TR	AJM146	12:00pm - 1:50pm
2017 Summer Session	10537	004	First Half Session	TR	AJM146	2:00pm - 3:50pm
2017 Summer Session	10749	005	First Half Session	-	-	-

**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
2017 Summer Session	10350	001	Second Half Session	W	BARNAH103	7:30am - 8:35am
2017 Summer Session	10350	001	Second Half Session	MTWRF	BARNAH103	8:45am - 9:50am
2017 Summer Session	10351	002	Second Half Session	TR	AJM146	10:00am - 11:50am
2017 Summer Session	10558	004	Second Half Session	TR	AJM146	2:00pm - 3:50pm

**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
2017 Summer Session	11032	001	First Half Session	MTWRF	BARNAH108	8:20am - 9:50am
2017 Summer Session	11033	002	First Half Session	MW	AJM138	10:00am - 11:50am
2017 Summer Session	11034	003	First Half Session	MW	AJM138	12:00pm - 1:50pm

**PHSX 222. Physics II (w/ calculus). 4 Credits.** (3 Lec, 1 Lab) F,S  
PREREQUISITE: PHSX 220 or PHSX 224; 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
2017 Summer Session	11035	001	Second Half Session	MTWRF	BARNAH108	8:20am - 9:50am
2017 Summer Session	11036	002	Second Half Session	MW	AJM146	10:00am - 11:50am
2017 Summer Session	11037	003	Second Half Session	MW	AJM146	12:00pm - 1:50pm



**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
2017 Summer Session	11038	001	First Half Session	MTWRF	BARNAH108	10:00am - 11:30am
2017 Summer Session	11039	002	First Half Session	MW	AJM137	12:00pm - 1:50pm

**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 electric, one and two dimensional kinematics, and dynamics. For middle school and high school science teachers.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10527	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11219	002	Non-standard term dates 17-JUL-17 28-JUL-17	-	-	-

**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
2017 Summer Session	11005	001	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-

**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, 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
2017 Summer Session	10345	801	Intercession	-	-	-

**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
2017 Summer Session	11014	801	Non-standard term dates 30-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11249	850	Full Semester	-	-	-

**PHSX 513. Quantum Mechanics Online. 3 Credits.** (3 Lec) Su alternate years, to be offered even years.

PREREQUISITE: 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
2017 Summer Session	10317	801	Full Semester	-	-	-

**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
2017 Summer Session	10636	003	Non-standard term dates 10-JUL-17 14-JUL-17	-	-	-
2017 Summer Session	11013	802	Full Semester	-	-	-
2017 Summer Session	11143	801	Intercession	-	-	-
2017 Summer Session	11147	803	First Half Session	-	-	-
2017 Summer Session	11220	004	Non-standard term dates 15-MAY-17 04-AUG-17	-	-	-
2017 Summer Session	11383	804	Second Half Session	-	-	-

**PSCI - Political Science****PSCI 210IS. Introduction to American Government. 3 Credits.** (3 Lec) F,S,Su

3cr. LEC 3 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
2017 Summer Session	10747	801	First Half Session	-	-	-
2017 Summer Session	10990	802	First Half Session	-	-	-

**PSCI 439. International Human Rights. 3 Credits.** (3 Lec) F alternate years

PREREQUISITE: PSCI 230D and junior standing. 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
2017 Summer Session	10587	801	Second Half Session	-	-	-

**PSCI 454. Cinema and Political Theory. 3 Credits.** (3 Lec) Su

3 cr. LEC 3 PREREQUISITE: PSCI 200, 210IS, 214IS, 230D or consent of the instructor. 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
2017 Summer Session	10586	001	First Half Session	TWR	GH143	10:00am - 12:20pm

**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
2017 Summer Session	11376	001	First Half Session	-	-	-

**PSCI 530. Tools of Public Administration. 3 Credits.** (3 Lec) F

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.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11380	801	First Half 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
2017 Summer Session	11221	001	Non-standard term dates 19-JUN-17 23-JUL-17	-	-	-

**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
2017 Summer Session	11222	001	Non-standard term dates 26-JUN-17 30-JUN-17	-	-	-

## 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
2017 Summer Session	10380	001	First Half Session	MWF	JONH346	9:00am - 10:55am
2017 Summer Session	10381	002	First Half Session	MW	TRAP100	11:15am - 12:45pm

**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
2017 Summer Session	10991	001	First Half Session	TR	TRAP100	9:00am - 11:10am
2017 Summer Session	10992	002	First Half Session	F	REID305	11:20am - 1:30pm

**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
2017 Summer Session	10993	001	First Half Session	TR	TRAP100	12:30pm - 3:45pm

**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
2017 Summer Session	11419	001	Second Half Session	MWF	TRAP308	1:30pm - 3:00pm

**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
2017 Summer Session	11179	001	Full Semester	TR	TRAP308	9:00am - 10:40am

**PSYX 263CS. The Psychology of Film. 3 Credits.** (3 Lec) S,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
2017 Summer Session	10591	001	First Half Session	MWF	TRAP308	1:40pm - 3:50pm

**PSYX 333. Psychology of Aging. 3 Credits.** (3 Lec) S

PREREQUISITE: PSYX 100 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
2017 Summer Session	11366	001	First Half Session	MWF	TRAP308	9:00am - 11:30am

**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
2017 Summer Session	10731	801	First Half Session	-	-	-
2017 Summer Session	10994	802	Second Half Session	-	-	-

**PSYX 380. Memory & Cognition. 3 Credits.** (3 Lec) F,S

PREREQUISITE: PSYX 100, 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
2017 Summer Session	11180	801	First Half Session	-	-	-

**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
2017 Summer Session	10585	801	First Half 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
2017 Summer Session	10995	801	First Half 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. 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
2017 Summer Session	10434	801	Full Semester	-	-	-

**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
2017 Summer Session	10568	001	Full Semester	-	-	-

## 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
2017 Summer Session	11097	801	Second Half Session	-	-	-

**RLST 202D. Hindu Traditions. 3 Credits.** (3 Lec)

-- The sacred texts and the historical forms of religious thought and practice in the traditions of India.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11098	801	Second Half 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
2017 Summer Session	11099	801	First Half Session	-	-	-

## SFBS - Sustainable Food & Bioenergy

**SFBS 296. Practicum: Towne's Harvest. 3 Credits.** (1 Lec, 2 Lab) Su  
**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
2017 Summer Session	10641	001	Full Semester	W	-	8:00am - 12:00pm
2017 Summer Session	10641	001	Full Semester	M	-	8:00am - 12:00pm
2017 Summer Session	10641	001	Full Semester	F	-	12:00pm - 3:00pm
2017 Summer Session	10717	002	Full Semester	R	-	8:00am - 12:00pm
2017 Summer Session	10717	002	Full Semester	T	-	8:00am - 12:00pm
2017 Summer Session	10717	002	Full Semester	F	-	12:00pm - 3:00pm

**SFBS 346. Sustainable Food and Bioenergy Systems Summer Field Course. 2 Credits.** (1 Lec, 1 Ind) Su

**PREREQUISITES:** 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
2017 Summer Session	10978	001	Second Half Session	-	-	-

**SFBS 445R. Culinary Marketing: Farm/Table. 3 Credits.** (1 Lec, 2 Lab) Su  
**PREREQUISITE:** FCS 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
2017 Summer Session	10597	001	Second Half Session	W	HH120	9:00am - 2:00pm
2017 Summer Session	10597	001	Second Half Session	T	HH117	12:00pm - 3:00pm

**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
2017 Summer Session	10728	001	Second Half Session	W	HH120	9:00am - 2:00pm
2017 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
2017 Summer Session	10404	801	First Half Session	-	-	-
2017 Summer Session	10942	802	Second Half Session	-	-	-
2017 Summer Session	10943	803	First 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
2017 Summer Session	11121	801	First Half Session	-	-	-

**SOCI 221IS. Criminal Justice System. 3 Credits.** (3 Lec) F,S

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
2017 Summer Session	10944	801	First Half Session	-	-	-

**SOCI 318R. Sociological Research Methods. 3 Credits.** (3 Lec) F,S

**PREREQUISITE:** SOCI 101IS and STAT 216Q.. 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
2017 Summer Session	10911	801	First Half 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
2017 Summer Session	11122	801	First Half 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
2017 Summer Session	10945	801	First Half 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
2017 Summer Session	10439	099	Full Semester	-	-	-
2017 Summer Session	10570	001	First Half Session	MWF	GH110	10:00am - 12:20pm

**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
2017 Summer Session	10440	099	Full Semester	-	-	-
2017 Summer Session	10571	001	Second Half Session	MWF	GH243	10:00am - 12:20pm

**SPNS 193. Study Abroad. 12 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11311	001	Full Semester	-	-	-

**SPNS 201D. Intermediate Spanish I. 3 Credits.** (3 Lec)

**PREREQUISITE:** SPNS 102D or equivalent, or placement exam. Intensive, methodical review of grammar and syntax combined with the integrated development of proficiency in the four language skills. Expansion of cultural knowledge and functional vocabulary through intermediate-level readings and discussions. Increased emphasis on written communication.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10441	099	Full Semester	-	-	-

**SPNS 293. Study Abroad. 12 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11312	001	Full Semester	-	-	-

**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
2017 Summer Session	10461	001	First Half Session	MWF	GH143	12:30pm - 2:50pm

**SPNS 393. Study Abroad. 12 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11313	001	Full Semester	-	-	-

**SPNS 493. Study Abroad. 12 Credits.**

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11314	001	Full Semester	-	-	-

## 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
2017 Summer Session	10315	001	First Half Session	MTWR	COBH429	8:45am - 9:50am
2017 Summer Session	10316	002	First Half Session	MW	COBH429	12:30pm - 1:35pm
2017 Summer Session	10316	002	First Half Session	MW	COBH429	1:40pm - 4:05pm

## STAT - Statistics

**STAT 216Q. Introduction to Statistics. 3 Credits.** (3 Lec) F,S,Su

**PREREQUISITE:** C- or better in any 100 level or above M course, or Math Placement Test within the past 12 months. Traditional and resistant estimators of location and spread, fundamentals of inference using randomization and classical methods, confidence intervals, and tests of hypotheses. COMMON EXAMS.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10365	001	First Half Session	MTR	WIL1119	7:30am - 8:35am
2017 Summer Session	10365	001	First Half Session	MTR	WIL1119	8:45am - 9:50am
2017 Summer Session	10366	002	First Half Session	MTR	GH143	7:30am - 8:35am
2017 Summer Session	10366	002	First Half Session	MTR	GH143	8:45am - 9:50am
2017 Summer Session	10367	801	First Half Session	-	-	-
2017 Summer Session	10444	003	First Half Session	MTR	WIL1119	10:00am - 11:05am
2017 Summer Session	10444	003	First Half Session	MTR	WIL1119	11:15am - 12:20pm
2017 Summer Session	10445	802	First Half Session	-	-	-
2017 Summer Session	10517	803	First Half Session	-	-	-
2017 Summer Session	10525	004	Second Half Session	MTR	WIL1119	7:30am - 8:35am
2017 Summer Session	10525	004	Second Half Session	MTR	WIL1119	8:45am - 9:50am
2017 Summer Session	10546	005	Second Half Session	MTR	GH143	7:30am - 8:35am
2017 Summer Session	10546	005	Second Half Session	MTR	GH143	8:45am - 9:50am
2017 Summer Session	10638	804	Second Half Session	-	-	-
2017 Summer Session	10716	805	Second Half Session	-	-	-

**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
2017 Summer Session	10566	001	First Half Session	MTR	ROBH113	10:00am - 11:05am
2017 Summer Session	10566	001	First Half Session	MTR	ROBH113	11:15am - 12:20pm
2017 Summer Session	10567	002	Second Half Session	MTR	ROBH113	10:00am - 11:05am
2017 Summer Session	10567	002	Second Half Session	MTR	ROBH113	11:15am - 12:20pm
2017 Summer Session	11286	801	Second Half Session	-	-	-

**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	Time
2017 Summer Session	11124	001	Second Half Session	MTR	WIL1138	10:00am - 11:05am
2017 Summer Session	11124	001	Second Half Session	MTR	WIL1138	11:15am - 12:20pm

**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
2017 Summer Session	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
2017 Summer Session	10646	802	Full Semester	-	-	-

**TE 501. History and Philosophy of Technology Education. 3 Credits.** (3 Lec) F,Su  
**PREREQUISITES:** Graduate standing. A review of national trends and issues in Technology Education and their implications for program development at the local, state and national level.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10522	801	Intercession	-	-	-

## 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
2017 Summer Session	11030	801	First Half 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
2017 Summer Session	10974	001	Non-standard term dates 12-JUN-17 17-JUN-17	-	-	-

## 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
2017 Summer Session	11012	001	Second Half Session	TWR	GCN	6:00pm - 9:00pm

## WRIT - Writing

**WRIT 100. Composing Mindfully. 3 Credits.** (1 Lab, 2 Recitation) Su  
**PREREQUISITES:** Admission to the Hilleman Scholars Program. **COREQUISITES:** Participation in the Hilleman Scholars Program's Summer Success Academy. Assists new college students' transition from high-school to college writing situations by focused inquiry into the concepts of writing ecology, multimodality, process, and revision.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	11332	001	Full Semester	MTWRF	AJM237	9:00am - 12:00pm
2017 Summer Session	11333	002	Full Semester	MTWRF	WIL1154	9:00am - 12:00pm
2017 Summer Session	11334	003	Full Semester	MTWRF	AJM251	9:00am - 12:00pm
2017 Summer Session	11335	004	Full Semester	MTWRF	WIL1125	9:00am - 12:00pm
2017 Summer Session	11336	005	Full Semester	MTWRF	-	9:00am - 12:00pm

**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
2017 Summer Session	10297	001	First Half Session	MWF	GH344	10:00am - 12:20pm
2017 Summer Session	10303	801	First Half Session	-	-	-
2017 Summer Session	10906	002	Second Half Session	MWF	GH030	10:00am - 12:20pm
2017 Summer Session	11174	802	Second Half Session	-	-	-
2017 Summer Session	11387	098	Second Half Session	MWR	WIL1123	8:45am - 11:05am

**WRIT 104. Workplace Communications. 2 Credits.** (2 Lec) F  
 Offered by Gallatin College. This course reviews the basic elements of grammar and language arts skills in business writing. Emphasis is placed on writing business letters, memos, emails, and reports for a variety of business applications as well as giving oral presentations. Letters of application and resumes are also covered.

Term	CRN	Section	Session/Dates	Days	Location	Time
2017 Summer Session	10877	001	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
2017 Summer Session	10866	001	First Half Session	MWF	ROBH209	10:00am - 12:20pm
2017 Summer Session	11394	002	Second Half Session	MWF	WIL1117	10:00am - 12:20pm



**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
2017 Summer Session	11175	001	First Half Session	-	-	-

**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
2017 Summer Session	11173	801	First Half Session	-	-	-
2017 Summer Session	11277	802	Second Half 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
2017 Summer Session	11172	801	Full Semester	-	-	-

# Telephone Numbers

Academic Affairs, Office of the Provost and Vice President	212 Montana Hall	994-4371
Administration and Finance, Office of the Vice President	201 Montana Hall	994-4361
Admissions, Office of	201 Strand Union	994-2452
Agriculture, College of	202 Linfield Hall	994-3681
Arts and Architecture, College of	217 Cheever Hall	994-4405
ASMSU, Student Government	281 Strand Union Building	994-2933
Bookstore	185 Strand Union Building	994-2811
Career Services	125A Strand Union Building	994-4133
Counseling and Psychological Services	211 Swingle Health Center	994-4531
Disability, Re-Entry and Veteran Services	180 Strand Union	994-2824
Education, Health and Human Development, College of	250 Reid Hall	994-4133
Engineering, College of	214 Roberts Hall	994-2272
Extended University Burns Technology Center (BTC)	128 EPS Building	994-6550
Continuing Education, Office of	204 Culbertson Hall	994-6683
Extension, Office of the Dean and Director	205A Culbertson	994-6647
Financial Aid Services	183 Strand Union Building	994-2845
Graduate School	108 Montana Hall	994-4145
Health Service	121 Swingle Health Center	994-2311
International Programs	400 Culbertson Hall	994-4031
Jake Jabs College of Business and Entrepreneurship		994-4421
Letters and Science, College of	2-205 Wilson Hall	994-4288
Library		994-3119
Museum of the Rockies		994-2251
Nursing, College of	115 Sherrick Hall	994-3783
Outdoor Recreation Center	1401 W. Lincoln Street	994-3621
PE Complex	114 Hosaeus	994-5500
Police, Campus	Huffman Building	994-2121
Post Office	Culbertson Hall, 1st Floor	994-2672
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

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
Recreation Center	106 Strand Union Bldg	994-5803
Student Accounts	Controller's Office, 103 Montana Hall	994-1991
Student Activities	282 Strand Union Building	994-3591
Student Success, Office of	177 Strand Union Building	994-7627
Students, Dean of	120 Strand Union Building	994-2826
Summer Session, Office of	212 Montana Hall	994-7136
Testing Service	243 Reid Hall	994-6984
University Studies	130 Gaines Hall	994-3532
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

# Departmental Contacts

Students seeking information regarding specific courses are encouraged to contact the appropriate academic departments. Following is a list of course rubrics with the contact phone numbers and email addresses of the overseeing departments.

<b>ACTG</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>AGBE</b>	Dept. of Agricultural Economics and Economics	994-3702	aboyd@montana.edu
<b>AGED</b>	Division of Agricultural Education	994-2132	aged@montana.edu
<b>AMST</b>	College of Letters and Science	994-4288	dcherry@montana.edu
<b>ANTH</b>	Dept. of Sociology & Anthropology	994-4201	kelsey.martin3@montana.edu
<b>ARCH</b>	School of Architecture	994-5772	rortego@montana.edu
<b>ARNR</b>	Dept. of Animal & Range Sciences	994-5582	deniset@montana.edu
<b>ARTH</b>	School of Art	994-4501	art@montana.edu
<b>ARTZ</b>	School of Art	994-4501	art@montana.edu
<b>ASTR</b>	Dept. of Physics	994-6186	sbarutha@physics.montana.edu
<b>BCH</b>	Dept. of Chemistry & Biochemistry	994-4801	chemistry@chemistry.montana.edu
<b>BFIN</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BGEN</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BIOB</b>	Dept. of Ecology	994-2911	ecology@montana.edu
<b>BIOE</b>	Dept. of Ecology	994-2911	ecology@montana.edu
<b>BIOH</b>	Dept. of Cell Biology & Neuroscience	994-5120	cbn@cns.montana.edu
<b>BIOL</b>	Dept. of Cell Biology & Neuroscience	994-5120	cbn@cns.montana.edu
<b>BIOO</b>	Dept. of Ecology	994-2911	ecology@montana.edu
<b>BMGT</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BMIS</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BMKT</b>	Jake Jabs College of Business & Entrepreneurship	994-4681	business@montana.edu
<b>BREN</b>	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu
<b>CAA</b>	College of Arts & Architecture	994-6654	kimberly.sinrud@montana.edu
<b>CE</b>	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu
<b>CET</b>	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu
<b>CHBE</b>	Dept. of Chemical & Biological Engineering	994-2221	chbe@coe.montana.edu
<b>CHMY</b>	Dept. of Chemistry & Biochemistry	994-4801	chemistry@chemistry.montana.edu
<b>CHTH</b>	Dept. of Health & Human Development	994-4001	hhd@montana.edu
<b>COA</b>	Dept. of Health & Human Development	994-4001	hhd@montana.edu
<b>COM</b>	University Studies	994-3532	universitystudies@montana.edu
<b>CS</b>	Dept. of Computer Science	994-4780	csinfo@cs.montana.edu
<b>CSCI</b>	Dept. of Computer Science	994-4780	csinfo@cs.montana.edu
<b>ECNS</b>	Dept. of Agricultural Economics & Economics	994-3702	aboyd@montana.edu
<b>EDCI</b>	Dept. of Education: Undergraduate Courses	994-3120	educ@montana.edu
<b>EDCI</b>	Dept. of Education: Graduate Courses	994-6786	edgrad@montana.edu
<b>EDEC</b>	Dept. of Health & Human Development	994-4001	hhd@montana.edu
<b>EDEL</b>	Dept. of Education	994-3120	educ@montana.edu
<b>EDLD</b>	Dept. of Education	994-6786	edgrad@montana.edu
<b>EDSD</b>	Dept. of Education	994-3120	educ@montana.edu
<b>EDSP</b>	Dept. of Health & Human Development	994-4001	hhd@montana.edu
<b>EELE</b>	Dept. of Electrical & Computer Engineering	994-2505	ecedept@ece.montana.edu
<b>EFIN</b>	Dept. of Mechanical & Industrial Engineering	994-2203	kathy.campbell@me.montana.edu

EM	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu
ENGL	Dept. of English	994-3768	english@msu.montana.edu
ENGR	College of Engineering	994-2272	coedeansoffice@coe.montana.edu
ENVE	Dept. of Civil Engineering	994-2111	cedept@ce.montana.edu
ERTH	Dept. of Earth Sciences	994-3331	earth@montana.edu
ESOF	Dept. of Computer Science	994-4780	csinfo@cs.montana.edu
FCS	Dept. of Health & Human Development	994-4001	hhd@montana.edu
FRCH	Dept. of Modern Languages and Literatures	994-4448	tracy@montana.edu
GDSN	School of Art	994-4501	art@montana.edu
GEO	Dept. of Earth Sciences	994-3331	earth@montana.edu
GPHY	Dept. of Earth Sciences	994-3331	earth@montana.edu
HDCO	Dept. of Health & Human Development	994-3241	hhdgrad@montana.edu
HORT	Dept. of Plant Sciences & Plant Pathology	994-4832	plantsciences@montana.edu
HSTA	Dept. of History & Philosophy	994-4395	history@montana.edu
HSTR	Dept. of History & Philosophy	994-4395	history@montana.edu
HTH	Dept. of Health and Human Development	994-4001	hhd@montana.edu
IMSE	Dept. of Mechanical & Industrial Engineering	994-2203	kathy.campbell@me.montana.edu
KIN	Dept. of Health & Human Development	994-4001	hhd@montana.edu
LAC	Dept. of Health and Human Development	994-3245	kathryn.franklin1@montana.edu
LIBR	Library	994-3162	brossman@montana.edu
LING	Dept. of English	994-3768	english@msu.montana.edu
LIT	Dept. of English	994-3768	english@msu.montana.edu
LRES	Dept. of Land Resources & Environmental Sciences	994-3090	lresinfo@montana.edu
M	Dept. of Mathematical Sciences	994-3601	math@math.montana.edu
MB	Dept. of Microbiology	994-2902	kcargill@montana.edu
MBEH	Dept. of Microbiology	994-2902	kcargill@montana.edu
ME	Dept. of Mechanical & Industrial Engineering	994-2203	kathy.campbell@me.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	kathy.campbell@me.montana.edu
ML	Dept. of Modern Languages & Literatures	994-4448	tracy@montana.edu
MSSE	Intercollege Programs for Science Education	994-5679	msse@montana.edu
MTA	School of Film & Photography	994-2484	vmiller@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	dmccray@montana.edu
NUTR	Dept. of Health & Human Development	994-4001	hhd@montana.edu
PHL	Dept. of History & Philosophy	994-4395	dcherry@montana.edu
PHOT	School of Film & Photography	994-2484	vmiller@montana.edu
PHSX	Dept. of Physics	994-6186	sbarutha@physics.montana.edu
PSCI	Dept. of Political Science	994-4141	banderson@montana.edu
PSPP	Dept. of Plant Sciences & Plant Pathology	994-4832	plantsciences@montana.edu
PSYX	Dept. of Psychology	994-3801	psydept@montana.edu
RLST	Dept. of History & Philosophy	994-4395	dcherry@montana.edu
SFBS	Dept. of Health & Human Development	994-4001	hhd@montana.edu
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