<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 First 6-week session &amp; 12-week session begin</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>25 Memorial Day Observed No classes</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>15 Education Intersession begins</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Intersession begins</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>22 First 6-week session ends</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>29 Second 6-week session begins</td>
<td>30</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
</tr>
<tr>
<td><strong>JUNE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7 Second 6-week session ends</td>
<td>30</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Welcome to Summer Session 2015 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 starting on p. 35.
- Are you an incoming freshman? Jump-start your college career by fulfilling a core requirement or two: see the list of offerings beginning on p. 43.
- If you’re looking for something different this summer, browse through the special summer courses section starting on p. 48. 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. Information on this program begins on p. 45.
- Turn to p. 56 for a description of summer master’s degree programs. 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 (see p. 23) and partake in one or more special summer events (p. 64).

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:
www.montana.edu/summer

The Montana State University Bulletin is published quarterly by the University Communications, Montana State University, Bozeman, Montana 59717-0222.

Periodicals postage paid at Bozeman, Montana. POSTMASTER: Send address changes to Office of Summer Session, MSU, 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 the Office of Summer Session or the Director of Admissions, Montana State University, Bozeman, MT 59717.

Photo, front cover: Whitetail Peak and the outlet of Shadow Lake, Sundance Pass Area. Photograph by Douglas Roane.

Back cover photo: MSU campus by Kelly Gorham.

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

SUMMER SESSION 2015 DATES
First 6-week session................. May 18–June 26
Second 6-week session............. June 29–August 7
12-week session.......................... May 18–August 7
Intersession ............................. June 15–August 7*
Education Intersession .............. June 15–July 24
*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 25
Independence Day Observed ... Friday, July 3

ADMISSION PROCEDURES
Admission information is provided inside (see p. 6, 67)

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 for instructions on how to register properly for SUMMER 2015 and FALL 2015.
March 16................................. Advising begins
March 23................................. Course Selection/Web registration for Summer 2015 (see p. 4). Web site: www.montana.edu
March 23................................. Course Selection/Web registration for Fall 2015 (see p. 5). Web site: www.montana.edu

All other students (new, transfer, etc.)
Please see p. 6 for admission instructions and p. 4 for registration information.

HOUSING
For on-campus housing information, see p. 17.

FEE PAYMENT
April 14-May 14, Student Accounts Office, 102 Montana Hall
A fee schedule is provided on p. 13.

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
Web site: www.montana.edu/summer

SUMMER SESSION STAFF
David Singel
Associate Provost
Director, Summer Session

Keely Holmes
Program Manager
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 (see instructions beginning on p. 6 of this bulletin).

STUDENT CATEGORIES

Continuing Students
- Continuing students are those registered in courses during Spring Semester 2015.
- 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 2015. 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 16 and registration begins Monday, March 23 on the Web (refer to the Fall 2015 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 2015.
- Former students must file an Intent to Register form (see access instructions, p. 67) 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 (see admissions procedures on p. 6 of this bulletin).
- Registration procedure
  1) Undergraduates
     - Advising for new Summer Session students will begin Monday, 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 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 2015 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 late April and mid-August) or Option 2 (attend the Transfer Student Orientation Program on Wed., Aug. 19). 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).

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

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

4) 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 p. 13-14 of this bulletin.

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 on p. 6 of this bulletin).
- Registration procedure
  1) Undergraduates
     - Advising for new Summer Session students will begin Monday, 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 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 2015 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 late April and mid-August) or Option 2 (attend the Transfer Student Orientation Program on Wed., Aug. 19). 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).

2) 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” (left).
FOR MORE INFORMATION ABOUT REGISTRATION, CONTACT:
Office of the Registrar
(406) 994-6650
registrar@montana.edu
www.montana.edu/registrar

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

Office of Summer Session
(406) 994-7136
summer@montana.edu
www.montana.edu/summer

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

Campus tours are offered at 9:00 a.m. and 2:00 p.m., Monday through Friday, leaving from the Office of Admissions, 201 Strand Union. For more information contact the Orientation Office, 201 Strand Union, (406) 994-2452 or 1-888-MSU-CATS, orientation@montana.edu, or visit the Orientation Web page at www.montana.edu/admissions/orientation.

FALL SEMESTER 2015 REGISTRATION
Please refer to the Fall 2015 Registration Handbook for instructions on how to register properly for Fall 2015. 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 23 through August 28.

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

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

Agriculture
Nora Smith, Ass’t. Dean
202 Linfield Hall
(406) 994-5745
norasmith@montana.edu

Arts and Architecture
Erica Dungan
217 Cheever Hall
(406) 994-4982

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
Christine Foreman, Assoc. Dean
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
Debbie McCray, Undergraduate Student Services Coordinator
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 Nielson-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
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 (see access instructions, p. 67) with the Registrar’s Office.

<table>
<thead>
<tr>
<th>Student Category</th>
<th>First 6-Week Session &amp; Full 12-Week Session</th>
<th>Second 6-Week Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Students (degree-seeking undergraduates)</td>
<td>May 1, 2015</td>
<td>June 8, 2015</td>
</tr>
<tr>
<td>New Students (degree-seeking graduates)</td>
<td>based on departmental deadlines</td>
<td>based on departmental deadlines</td>
</tr>
<tr>
<td>Summer-Only and other Non-Degree Students (non-degree undergraduates and graduates)</td>
<td>May 1, 2015 (UG) May 18, 2015 (Grad)</td>
<td>June 8, 2015 (UG) June 29, 2015 (Grad)</td>
</tr>
<tr>
<td>International Student Applications</td>
<td>Feb. 1, 2015 (final deadline)</td>
<td>Feb. 1, 2015 (final deadline)</td>
</tr>
</tbody>
</table>

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 (available online at www.montana.edu/wwwcat/appopts.html) or Complete a paper application (available from the MSU Admissions Office: (406) 994-2452 or admissions@montana.edu)
2) Submit the application along with the application fee ($36 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 Service (see “Immunization Requirements, next page).

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 (available online at www.montana.edu/wwwcat/appopts.html) or
2) Submit the application along with the application fee ($36 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 Service (see “Immunization Requirements, next page).

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

Degree-Seeking Graduate Students are:
• Pursuing a graduate degree at MSU (see p. 11-12 of this bulletin for more information regarding graduate programs)
• College graduates, currently holding at least a bachelor’s degree

Admission application procedure:
1) Complete the application for graduate admission online at this link: www.montana.edu/gradschool/apply.html. This online application process allows you to find out the application procedures for the department you are applying to and allows you to track...
your application process from materials received by the department (e.g. Letters of recommendation) through the committee review process. Paper applications are provided upon request (gradschool@montana.edu).

2. Pay: $60 application fee

3. Request that an official transcript from the institution granting your bachelor’s degree be sent to the Graduate School at MSU at the time you submit your application. MSU undergraduate alumni do not need to provide MSU transcripts. If there are previous graduate level courses taken at a different university, those transcripts need to be sent as well. Only 9 graduate level credits are allowed to be transferred into a degree seeking program.

4. 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).

5. If a master’s degree is received from another university, or from MSU, up to 30 credits of that master’s degree can be applied to a Ph.D. program upon department approval (check policies and procedures for specific details on what credits are accepted).

6. Submit records of immunizations and tuberculosis (TB) screening to Student Health Service (See “Immunization Requirements”)

7. Additional Materials are required by International Applicants. See The Graduate School webpage for details.

Incomplete applications will not be considered.

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, or visit the School’s web site at www.montana.edu/gradschool/

**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 (available online at www.montana.edu/wwwcat/appopts.html)
2. Submit the application along with the application fee ($36 online or $30 paper)
3. Submit record of immunizations and tuberculosis (TB) screening form to Student Health Service (see “Immunization Requirements”, right).

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

**Non-Degree Graduates are:**
- 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, Addiction Counseling Certificate, Post-Baccalaureate Pre-Medical Certificate, and Teacher Certification programs.

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.

- Taking any courses offered by the university (undergraduate or graduate level) other than restricted departmental courses. They are not eligible for financial aid. (Note: only 9 graduate level credits taken as a ND student are allowed to be transferred into a degree seeking program)

**Admission application procedure:**
1. Complete the application for graduate admission online at this link: www.montana.edu/gradschool/apply.html.
   This online application process allows the applicant to track their application process from materials received by the department to the committee review process. Paper applications are provided upon request (gradschool@montana.edu).
2. Pay: $60 application fee
3. Request that an official transcript from the institution granting your bachelor’s degree be sent to the Graduate School at MSU at the time you submit your application. MSU undergraduate alumni do not need to provide MSU transcripts. If there are previous graduate level courses taken at a different university, those transcripts need to be sent as well. Only 9 graduate level credits are allowed to be transferred into a degree seeking program.
4. Submit records of immunizations and tuberculosis (TB) screening to Student Health Service (See “Immunization Requirements”)

Every applicant who applies for admission to MSU and completes an application will receive a formal decision by The Graduate School within five (5) business days, whether they have, or have not, been admitted. If admitted, details on registration will be included in the notification.
IMMUNIZATION REQUIREMENTS

Students must meet MSU’s immunization requirements before registering for classes. The Student Health Service requires a copy of an official health record to certify that you have met these requirements. For the immunization requirements, please consult the Student Health Service website at www.montana.edu/health. 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.

Immunization records should be submitted directly to the Student Health Service by one of the following methods:

- Online (preferred method): Go to www.montana.edu/health and log on to the electronic health record system. To register, you will need to know your MSU ID and you will be asked to select a user name and password. You will enter the immunization data and complete the tuberculosis screening form. You will need to submit copies of your immunization records and the results of your TB test if your answers on the screening form determine you need one. You can scan these into a pdf and upload them or you can fax or mail the records as described below.

- Fax or Mail: Go to www.montana.edu/health, 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 or mail to MSU Student Health Service, P.O. Box 173260, Bozeman, MT 59717-3260.

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

FOR MORE INFORMATION ABOUT ADMISSION, CONTACT:

Office of Admissions
(406) 994-2452 or 1-888-MSU-CATS
admissions@montana.edu
www.montana.edu/admissions

The Graduate School
(406) 994-4125
1-800-255-7962
gradschool@montana.edu
www.montana.edu/gradschool

Office of Summer Session
(406) 994-7136
summer@montana.edu
www.montana.edu/summer

SERVICES FOR STUDENTS WITH DISABILITIES

Students desiring accommodations for a disability may request services through:
Disabled Student Services
180 Strand Union
(406) 994-2824
TTY: (406) 994-6701
byork@montana.edu
www.montana.edu/disability

Enrollment in Montana State University is open to all students regardless of race, sex, religion, disability, age, national or ethnic origin, or marital status.
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 page at www.montana.edu/wwwcat/register/register1.html.

### DROP/ADD SCHEDULE

<table>
<thead>
<tr>
<th>First 6-week</th>
<th>Inter-semester*</th>
<th>Second 6-week</th>
<th>12-week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction Begins</td>
<td>Monday May 18</td>
<td>Monday June 15</td>
<td>Monday June 29</td>
</tr>
<tr>
<td>Last day to add online</td>
<td>Tuesday May 19</td>
<td>Wednesday June 17</td>
<td>Tuesday June 30</td>
</tr>
<tr>
<td>Last day to add; Pass/Fail petitions due</td>
<td>Thursday May 21</td>
<td>Monday June 22</td>
<td>Thursday July 2</td>
</tr>
<tr>
<td>Last day to drop online</td>
<td>Thursday May 21</td>
<td>Monday June 22</td>
<td>Thursday July 2</td>
</tr>
<tr>
<td>Drop without grade during this time</td>
<td>May 18-26</td>
<td>June 15-26</td>
<td>June 29-July 7</td>
</tr>
<tr>
<td>W grades only for drops during this time</td>
<td>May 27-June 19</td>
<td>June 20-July 31</td>
<td>July 8-31</td>
</tr>
<tr>
<td>No drops beginning this date</td>
<td>Monday June 22</td>
<td>Monday Aug. 3</td>
<td>Monday Aug. 3</td>
</tr>
<tr>
<td>Classes End</td>
<td>Friday June 26</td>
<td>Friday August 7</td>
<td>Friday August 7</td>
</tr>
</tbody>
</table>

*Inter-semester 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.

### THE GRADUATE SCHOOL

Summer Dates and Deadlines

- **May 18**
  - Instruction begins

- **May 18**
  - Last day for international applications for fall semester (if this is different than your department, follow your department’s date)

- **May 25**
  - Memorial Day holiday (no classes; offices closed)

- **June 10**
  - Last day for graduate students to file “Application for Advanced Degree”

- **June 29**
  - Second 6-week session begins

- **July 3**
  - Independence Day holiday observed (no classes; offices closed)

- **July 24**
  - 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.

- **Aug 7**
  - Intersession ends; Last day of semester; classes end for 12 week and second 6 week, Last day to withdraw application for advanced degree

### GRADE REPORTS AND TRANSCRIPTS
Grades for all sessions that end by August 7 will be processed and available on August 12, and will be posted on the Web at MyInfo.

Transcripts of summer work can be processed beginning August 14. Students who want official transcripts sent to another institution or to their place of employment need to request an official transcript to be sent after their grade is posted. For more information visit the Registrar’s Web page at www.montana.edu/registrar.

### IMPROPER REGISTRATION
A student who attends a class without being properly registered for it will 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.
Graduate Programs

GRADUATE DEGREES CONFERRED

Degrees

Agricultural Education (M.S.) **
American Studies (M.A., M.Ed., & 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.)**
Earth Sciences (M.S. & Ph.D.)
Educational Leadership (M.Ed.; & Ed.D.) (Superintendent & Principal Endorsement*)
Education Specialist (Ed.S.)
Electrical & Computer Engineering (M.S., M.Eng., & Ph.D.)
Ecology & Environmental Sciences (Ph.D.) Interdisciplinary
Engineering Management, Professional (P.M.)
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: 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 (M.S.)
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 *
Architecture, Professional Practice **
Chemistry Teaching **
College Teaching *
Earth Science Teaching **
Elementary School Science Teaching **
Library Media **
Life Science Teaching **
Manufacturing Best Practices—Process **
Manufacturing Best Practices—Systems **
MDI: Montana Dietetic Internship *
Native American Studies **
Nursing Education **
Physics Teaching **
Post-Baccalaureate Pre-Medical *
Science & Engineering Management — Business **
Science & Engineering Management — Project **
Teacher Certification (online through NPTT) **

* online program;
** online or onsite program
GRADUATE ADMISSIONS

Persons eligible to apply as degree-seeking graduates must 1) hold a four-year baccalaureate degree from an 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 the Graduate School. For non-degree admissions, all of the above apply, except for provisional admittance.

Applicants should consider themselves admitted only when an official acceptance notification has been received 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.

ENGLISH PROFICIENCY EXAMS

International applicants must submit TOEFL or IELTS Scores. These are the minimum admission scores; some departments may require higher scores. See department websites for details.

American Cultural Exchange Language Institute

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.
2015 Summer Fees

Fees as of January 2015

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.

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 to the right 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.

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 non-laboratory class as a non-matriculated student upon the payment of the same fees as regularly enrolled in-state students. The person so registering may not participate in class discussion nor take examinations. Applications for non-matriculated enrollment should be made through the Registrar, who will provide a Non-Matriculated Attendance Form for acceptance by the instructor. Activity courses may not be taken by non-matriculated students.

OBTAINING YOUR FEE SUMMARY
Properly registered students may obtain their fee summary on the Web by going to the MSU home page (www.montana.edu) and following these links: MyInfo; Enter Secure Area; Login (follow instructions on that page); Student Services; Student Records; Electronic Billing and Payment.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Resident</th>
<th>Non-Resident</th>
<th>Resident</th>
<th>Non-Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$330.35</td>
<td>$938.25</td>
<td>$330.35</td>
<td>$938.25</td>
</tr>
<tr>
<td>2</td>
<td>$577.10</td>
<td>$1,792.90</td>
<td>$577.10</td>
<td>$1,792.90</td>
</tr>
<tr>
<td>3</td>
<td>$823.85</td>
<td>$2,647.55</td>
<td>$823.85</td>
<td>$2,647.55</td>
</tr>
<tr>
<td>4</td>
<td>$1,070.60</td>
<td>$3,502.52</td>
<td>$1,070.60</td>
<td>$3,502.52</td>
</tr>
<tr>
<td>5</td>
<td>$1,317.35</td>
<td>$4,356.85</td>
<td>$1,317.35</td>
<td>$4,356.85</td>
</tr>
<tr>
<td>6</td>
<td>$1,564.10</td>
<td>$5,211.50</td>
<td>$1,564.10</td>
<td>$5,211.50</td>
</tr>
<tr>
<td>7</td>
<td>$1,978.90</td>
<td>$6,234.20</td>
<td>$2,009.35</td>
<td>$6,264.65</td>
</tr>
<tr>
<td>8</td>
<td>$2,225.65</td>
<td>$7,088.85</td>
<td>$2,256.10</td>
<td>$7,119.30</td>
</tr>
<tr>
<td>9</td>
<td>$2,472.40</td>
<td>$7,943.50</td>
<td>$2,502.85</td>
<td>$7,973.95</td>
</tr>
<tr>
<td>10</td>
<td>$2,719.15</td>
<td>$8,798.70</td>
<td>$2,749.60</td>
<td>$8,828.60</td>
</tr>
<tr>
<td>11</td>
<td>$2,965.90</td>
<td>$9,652.80</td>
<td>$2,996.35</td>
<td>$9,683.25</td>
</tr>
<tr>
<td>12</td>
<td>$3,212.65</td>
<td>$10,507.45</td>
<td>$3,243.10</td>
<td>$10,537.90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credits</th>
<th>Resident</th>
<th>Non-Resident</th>
<th>Resident</th>
<th>Non-Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$374.75</td>
<td>$982.65</td>
<td>$374.75</td>
<td>$982.65</td>
</tr>
<tr>
<td>2</td>
<td>$665.90</td>
<td>$1,881.70</td>
<td>$665.90</td>
<td>$1,881.70</td>
</tr>
<tr>
<td>3</td>
<td>$957.05</td>
<td>$2,780.75</td>
<td>$957.05</td>
<td>$2,780.75</td>
</tr>
<tr>
<td>4</td>
<td>$1,248.20</td>
<td>$3,679.80</td>
<td>$1,248.20</td>
<td>$3,679.80</td>
</tr>
<tr>
<td>5</td>
<td>$1,539.35</td>
<td>$4,578.85</td>
<td>$1,539.35</td>
<td>$4,578.85</td>
</tr>
<tr>
<td>6</td>
<td>$1,830.50</td>
<td>$5,477.90</td>
<td>$1,830.50</td>
<td>$5,477.90</td>
</tr>
<tr>
<td>7</td>
<td>$2,289.70</td>
<td>$6,545.00</td>
<td>$2,320.15</td>
<td>$6,575.45</td>
</tr>
<tr>
<td>8</td>
<td>$2,580.85</td>
<td>$7,444.05</td>
<td>$2,611.30</td>
<td>$7,474.50</td>
</tr>
<tr>
<td>9</td>
<td>$2,872.00</td>
<td>$8,343.10</td>
<td>$2,902.45</td>
<td>$8,373.55</td>
</tr>
<tr>
<td>10</td>
<td>$3,163.15</td>
<td>$9,242.15</td>
<td>$3,193.60</td>
<td>$9,272.60</td>
</tr>
<tr>
<td>11</td>
<td>$3,454.30</td>
<td>$10,141.20</td>
<td>$3,484.75</td>
<td>$10,171.65</td>
</tr>
<tr>
<td>12</td>
<td>$3,745.45</td>
<td>$11,040.25</td>
<td>$3,775.90</td>
<td>$11,070.70</td>
</tr>
</tbody>
</table>

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 20 through May 20. 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)
- **Mail** payment to Student Accounts, P.O. Box 172640, MSU, Bozeman, MT, 59717-2640
- **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 20
- Second 6 weeks—July 1
- Full 12 weeks—May 20
- Intersession—June 17

**FEE REFUNDS**

Refunds for financial aid in excess of your university bill for Summer Session will be available after May 20. 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 done 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
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

<table>
<thead>
<tr>
<th>Day of Instruction</th>
<th>Percentage of Fees Refunded*</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 6-Week Session</td>
<td></td>
</tr>
<tr>
<td>Registration day (if prior to first day of session)</td>
<td>100%</td>
</tr>
<tr>
<td>May 18-19</td>
<td></td>
</tr>
<tr>
<td>May 20-21</td>
<td></td>
</tr>
<tr>
<td>May 22-26</td>
<td></td>
</tr>
<tr>
<td>After May 26</td>
<td></td>
</tr>
<tr>
<td>Second 6-Week Session</td>
<td></td>
</tr>
<tr>
<td>Registration day (if prior to first day of session)</td>
<td></td>
</tr>
<tr>
<td>June 29-30</td>
<td></td>
</tr>
<tr>
<td>July 1-2</td>
<td></td>
</tr>
<tr>
<td>July 6-7</td>
<td></td>
</tr>
<tr>
<td>After July 7</td>
<td></td>
</tr>
<tr>
<td>Intersession</td>
<td></td>
</tr>
<tr>
<td>Registration day (if prior to first day of session)</td>
<td>100%</td>
</tr>
<tr>
<td>June 15-16</td>
<td></td>
</tr>
<tr>
<td>June 17-18</td>
<td></td>
</tr>
<tr>
<td>June 19-22</td>
<td></td>
</tr>
<tr>
<td>After June 22</td>
<td></td>
</tr>
</tbody>
</table>

### 12-Week Session

<table>
<thead>
<tr>
<th>Day of Instruction</th>
<th>Percentage of Fees Refunded*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration day (if prior to first day of session)</td>
<td>100%</td>
</tr>
<tr>
<td>May 18-21</td>
<td></td>
</tr>
<tr>
<td>May 22-28</td>
<td></td>
</tr>
<tr>
<td>May 29-June 4</td>
<td></td>
</tr>
<tr>
<td>After June 4</td>
<td></td>
</tr>
</tbody>
</table>

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

Financial Aid

Office of Financial Aid Services
Room 183 Strand Union Building
(406) 994-2845
www.montana.edu/wwwfa

SUMMER SESSION FINANCIAL AID

Applying for Summer Session 2015 financial aid requires two separate application processes:
1) You must complete a 2014-2015 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 2014-2015 FAFSA must be received by the federal processor no later than June 30, 2015. **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 2014 or Spring 2015 semesters, you already have completed a 2014-2015 FAFSA.

Complete the FAFSA electronically at www.fafsa.ed.gov.

Completing the MSU Summer Supplemental Application
If your FAFSA was received by the federal processor by June 30, 2015, you may apply for summer aid by completing the MSU Summer Supplemental Application. The priority date for summer financial assistance is March 31, 2015. Your Summer Supplemental 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, 2015. Requests for summer term financial aid will not be accepted after this date.

Copies of the Summer Supplemental Application are available at the Office of Financial Aid Services or by clicking on the Forms link on the Financial Aid Services Web site at www.montana.edu/wwwfa.

**FINANCIAL AID DEADLINES FOR SUMMER SESSION 2015**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 31, 2015</td>
<td><strong>Priority date</strong> to submit MSU Summer Supplemental Application Form</td>
</tr>
<tr>
<td>June 30, 2015</td>
<td><strong>Final date</strong> to submit MSU Summer Supplemental Application Form</td>
</tr>
<tr>
<td>June 30, 2015</td>
<td><strong>Final date</strong> for 2014-2015 FAFSA to arrive at the federal processor</td>
</tr>
</tbody>
</table>

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

Work-Study awards or private checks received by the University but payable to you will not be reflected as a credit on your bill.

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 promissory loan 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/wwwfaa/.

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 2015-2016
You must complete the 2015-2016 Free Application for Federal Student Aid (FAFSA) in order to be considered for financial assistance for 2015 Fall Semester and/or 2016 Spring Semester.

The following dates apply:
March 1, 2015  Priority filing date for 2015-2016 FAFSA.
Nov. 15, 2015  Final filing date for 2015-2016 FAFSA for 2015 Fall Semester aid
March 31, 2016  Final filing date for 2015-2016 FAFSA for 2016 Spring Semester aid

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

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

RESIDENCE HALLS & SUITES
Residence Life/University Food Service
Located North of Gallatin Hall
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 and bed linens, 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 labs, laundry facilities, game rooms and TV lounges.

Residence halls are located on campus providing convenient access to Harrison Dining Hall, 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 17, at 9:00 a.m.

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

Estimated room rates listed below are based on a double occupancy room. Single occupancy rooms will be available on a limited basis, per request. Single room rates will be available February 2015.

**Estimated Room Rates**
- 1st 6-week session (May 17-June 27): $450.00*
- 2nd 6-week session (June 28-August 8): $450.00*
- 12-week session (May 17-August 8): $900.00*
- 12-month contract** (May 9-August 18): $990.00*

*(12-month contract price includes interim periods May 9-17 and August 8-18)*

** 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 2015 and have a 2015-2016 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. 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 17, at 9:00 a.m.

Availability of meals throughout Summer Session 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 $150.00
- 50 meals $275.00
- 75 meals $375.00

Individual Meals
*(purchased at the entrance to the Food Service)*:
- Breakfast $6.75
- Lunch $7.75
- Dinner $8.75

For more information about meals, visit the Food Service Web site at 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

Family & Graduate Housing consists of 587 apartments located in eight apartment communities (Paisley Court, Brangelon 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 barbeques 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 upper classman student with seventy-two (72) completed credits or more may be accommodated in the residence halls.

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

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

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

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

If you choose to print and mail your application, please send the FGHO application plus the $100.00 application fee to:
Cashier’s Office
Hedges Complex
Montana State University
P.O. Box 172080
Bozeman, MT 59717-2080

CAT CARD
(Campus ID Card)
Cat Card Office
Room 134, Strand Union Building
(406) 994-CARD (994-2273)
www.montana.edu/catcard

The Cat Card is a photo ID card which serves as campus identification, a meal plan card, library card, campus debit card*, and access control card. Deposits can be made at the Cat Card Office, 134 SUB; the Residence Life Cashier’s Office in the Hedges Complex; or online at www.montana.edu/catcard.

*Purchases may be made using Cat Card as a debit card at any of the following locations on campus:
• Ask Us Information Center
• ASMSU Intramurals
• ASMSU Outdoor Recreation
• Brewed Awakenings
• Business Office
• CopyCats
• Dental Clinic
• The Habit
• HedgeHog
• 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, Bobcat Grill, SRO Espresso, Sweet Shop, Zorba’s, and Union Market)
• Student computer labs for printing
• Student Health Service
• University Police
• Vending machines (select)
Student Services at MSU

Dean of Students Office
174 Strand Union
994-2826
www.montana.edu/deanofstudents

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

ASMSU services include:
ASMSU Senate......................994-2933
www.montana.edu/asmsu

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

ASMSU services include:
ASMSU Senate......................994-2933
www.montana.edu/asmsu

ALLEN YARNELL CENTER FOR STUDENT SUCCESS

• Career, Internship & Student Employment Services
177 Strand Union
994-4353
www.montana.edu/careers

Career, Internship & Student Employment Services offers a full range of career planning and recruitment services to students, alumni, the campus community, and employers. A primary goal of the office is to help students find satisfying careers and gain experience and skills which will clarify goals and facilitate entry into the job market. Services include:
• HireABobcat.com, a web page that hosts student employment, internship and full-time employment opportunities.
• Career coaching to assist individuals with choice of major, 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 search, interviewing, resume writing, and various career options.
• A credential file service for teacher and graduate school candidates, plus all other students and alumni.

• Office of Student Success
177 Strand Union
994-ROAR (7627)
www.montana.edu/success

The Office of Student Success believes in students and their potential. Students who visit our office learn to take an active role in owning and directing their education and future. The Office of Student Success offers several programs and services aimed at helping students achieve success at MSU. These programs and services include:
• Student Success Advisors are expert learning strategists who meet one-on-one with students to teach them the 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 through any rough spots they may have experienced in their freshman year.
• Student Early Alert System connects each referred student with a Student Success Advisor who will provide each student 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 them to other students.
• ChampChange is a program that 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, to MSU students for a large variety of courses.
• The Office of Financial Education is committed to aiding and educating students to ensure they understand and develop solid financial habits to make wise choices while attending school and beyond. Located in SUB 152. 406-994-4388
• Learning Strategies (US 191). 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.
• Legend of the Bobcat is a freshman-only event held every year at the beginning of the fall semester and is designed to welcome first-year students and get them excited about their new community and home.
• MSU 101 is offered several times each semester with the purpose of providing students with the tools they need to succeed at MSU.

Counseling & Psychological Services
211 Swingle Hall (above Student Health)
994-4531
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/day-care.html
A Day Care Preschool provided by ASMSU and the University is available in the family housing area. Children ages 2½ 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
• Disabled Student Services - This program provides services for students with disabilities. Students desiring accommodations for a disability must request services through Disabled Student Services.
• Re-entry Student Services - Non-traditional-age students (25 and over) can find direction, support, and assistance in this office.

• Veteran Support Center/Office of Veteran Services - (185 Strand Union, 994-3661) The center is dedicated to a variety of activities for MSU’s student veterans, along with managing GI Bill benefits for all qualified veterans, dependents, and Guard/Reserves.

Financial Aid Services
183 Strand Union
994-2845
www.montana.edu/wwwfa
To assist students in financing a college education, the Office of Financial Aid Services administers loan, grant, scholarship and work study programs from federal, state, university and private sources.

In order to apply for financial assistance for the summer session, you must complete (1) a 2014-2015 Free Application for Federal Student Aid (FAFSA) and (2) a Summer Supplemental Application Form. Your completed FAFSA must be received by the Federal Processor no later than June 30, 2015. This is an absolute deadline. Summer Supplemental Forms may be obtained at the Office of Financial Aid Services or online at www.montana.edu/wwwfa.

The priority date for summer financial assistance is March 31, 2015. 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, 2015. Applications or requests for summer term financial aid will not be accepted after that date.

Hosaeus Fitness Center/Recreational Sports & Fitness
994-5000
www.montana.edu/getfit
The Hosaeus Fitness Center is available to students taking seven or more credits (membership is paid through University fees). Students taking six credits or less may ‘elect’ to use the gym by paying the fee for membership at the Cashier’s Window on the first floor of Montana Hall.

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

• Summer Building Hours for Hosaeus PE Complex
Monday-Friday, 6a.m.-8p.m.
Saturday (beginning in May) 9a.m.-1p.m.
Closed Sunday
Closed Graduation weekend, Memorial Day weekend, and 4th of July weekend

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

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

• Rec Sports Equipment Room
994-5500
Monday-Friday, 7a.m.-8p.m.
Equipment check-out
Court reservations
Towel service

• Services
Tours
Fitness equipment orientation
Group fitness classes
Personal training
Instructional programs
Massage
Workshops
Children’s programs

• Website & Facebook
Please check our website for the latest information on classes and building hours: www.montana.edu/getfit
Find us on Facebook: www.facebook.com/MSURecSports

• 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 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 hosting, please call (406) 585-9832.

Bicycle Workshop
The Bicycle Workshop provides the opportunity for individuals to maintain and repair personal equipment. Options include:
- Do It Yourself – free use of work area and tools
- Technical Assistance – an attendant is on duty periodically
- Drop-Off Service – available for individuals who prefer to have a technician do the work (inquire for rates). A limited supply of parts is also stocked for resale.

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

Renne Library
994-3171
www.lib.montana.edu

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

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

Renne Library is open to the public.

Strand Union Building
994-3082
www.montana.edu/sub

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

Focusing on serving the needs of students, staff, faculty and University guests, the Strand Union has three student-managed, student-staffed service centers:
- “ASK US” Information Center/Ticket Office—campus information, lost and found, ticket sales, stamps, mail drop, and fax. Visit www.montana.edu/askus for MSU Events & Schedules, MSU Info and Directories, Community Info, and Other Helpful Sites.
- CopyCats—convenient copy service, color copies, and digital output (from CD or flash), postal, laminating and binding services, and class notes.
- Recreation Center—bowling, billiards, foosball, shuffleboard, videos, ESPN, PS3, and snacks. Open Summer Session Mon.-Thurs., 12:00 noon-10:00 p.m.; Fri., 12:00 noon-5:00 p.m.

Additional services in the Strand Union include:
- Full service banking
- Automated banking ATMs
- Federal Express drop box
Vehicle Registration

Vehicle Registration Fees for Summer Session
(applicable from May 3 to Aug. 31, 2015)

- SB lots $84.00
- E lots $84.00
- F lot $34.00
- D lot $60.00
- Motorcycles $33.00

Hang tags are available for $3.00 per day and may be used in any campus lot except gold signed reserved parking.

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.
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 15,000 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
- Greyhound Bus Lines (Belgrade)
- Streamline Transit Bus Service (servicing Bozeman and Belgrade)
- Gallatin Field Airport (8 miles northwest of Bozeman; serviced by Northwest, Delta, Horizon Air, Big Sky, and United Express 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
- 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.

TO REACH THE CAMPUS
From the West
On I-90, take exit 305 onto North 19th Avenue and follow it to Kagy Blvd. Turn left onto Kagy and continue to South 7th Avenue; turn left and continue to parking areas. Visitor parking is available in the pay parking lot on the corner of S. 7th and Grant (see star on map).

From the East
On I-90 take exit 309 onto Main Street; proceed west through downtown to Willson Avenue, turn left and proceed 18 blocks to Kagy Blvd.; turn right and continue to South 7th Avenue; turn right. Parking is available as mentioned above.

BOZEMAN AREA INFORMATION LINK
www.montana.edu/level2/other.html
Summer 2015 Offerings

Summer Session 2015 brings a variety of credit and non-credit opportunities to a diverse audience, including continuing MSU students, summer-only students, children, and adult learners.

Schedule of Courses ................................................................. 26
Summer Session 2015 Preliminary Course Listing

Departmental Contacts .............................................................. 32
How to contact departments with questions about specific courses

Online Courses .......................................................................... 35
Earn credit at MSU this summer even if you’re away from Bozeman

Core Courses ............................................................................... 43
Choose from more than 60 courses and fulfill a core requirement or two

Summer Science and Mathematics Courses for Pre-Med .................. 45
Chemistry, physics, mathematics, and biology for pre-medical students

Special Summer Courses ............................................................ 48
Try something different this summer

Master’s Degree Programs .......................................................... 56
Earn a Master’s degree in three to four summers

Get a Head Start ......................................................................... 58
Opportunities for recent high school graduates and current high school students

Extended University Courses ...................................................... 59
Open to MSU and non-MSU students alike

Gallatin College ........................................................................ 61
Gallatin Valley residents now have access to some of the best benefits of a local two-year college

Programs for Young People ........................................................ 62
Opportunities for children in academics, sports, and music

Special Summer Events ............................................................. 64
Cultural events, museum exhibits, and farmers’ markets
Schedule of Courses

Following on p. 28-32 is the Summer Session 2015 preliminary course listing as of January 2015.

Please refer to the Summer Session class schedule online for the most current information. The schedule will be mostly complete by Jan. 31, 2015. 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 2015 Summer Session Schedule of Classes may be accessed online as follows:

1) Go to Web site: www.montana.edu (MSU home page)
2) Click on: MyInfo (bottom left-hand corner of page), Schedule of Classes
3) Select term: 2015 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.

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.

<table>
<thead>
<tr>
<th>Course Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>294, 298, 576</td>
<td>Seminar</td>
</tr>
<tr>
<td>394, 499, 576</td>
<td>Undergraduate Research</td>
</tr>
<tr>
<td>494, 498, 576</td>
<td>Undergraduate Projects</td>
</tr>
<tr>
<td>490R</td>
<td>Undergraduate Scholars Program</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>292, 291, 570</td>
<td>Individual Problems</td>
</tr>
<tr>
<td>492, 491, 570</td>
<td>(individual projects)</td>
</tr>
<tr>
<td>592</td>
<td></td>
</tr>
<tr>
<td>589</td>
<td>Graduate Consultation</td>
</tr>
<tr>
<td>590</td>
<td>Master’s Thesis</td>
</tr>
<tr>
<td>588</td>
<td>Professional Development</td>
</tr>
<tr>
<td>689</td>
<td>Reading and Research</td>
</tr>
<tr>
<td>690</td>
<td>Doctoral Thesis</td>
</tr>
<tr>
<td>590R</td>
<td>Undergraduate Scholars Program</td>
</tr>
<tr>
<td>575</td>
<td>Graduate Research Paper</td>
</tr>
<tr>
<td>588</td>
<td>(Professional paper/project)</td>
</tr>
<tr>
<td>589</td>
<td>Graduate Consultation</td>
</tr>
<tr>
<td>590</td>
<td>Master’s Thesis</td>
</tr>
<tr>
<td>689</td>
<td>Reading and Research</td>
</tr>
<tr>
<td>690</td>
<td>Doctoral Thesis</td>
</tr>
<tr>
<td>575</td>
<td>Graduate Research Paper</td>
</tr>
</tbody>
</table>
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 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 18 - June 26
Second 6-week session: June 29 - Aug. 7
12-week session: May 18 - Aug. 7
Inter session: June 15 - Aug. 7*
Education Inter session: June 15 - July 24
*
Inter session is designed for courses of varying length

**ABBREVIATIONS**
The following abbreviations are used in the Schedule of Courses:

- M—Monday
- F—Friday
- T—Tuesday
- S—Saturday
- W—Wednesday
- U—Sunday
- R—Thursday

**BUILDING ABBREVIATIONS**

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

*Intersession is designed for courses of varying length*
Preliminary Course Listing

SUMMER SESSION 2015 PRELIMINARY COURSE LISTING
(as of January, 2015)

Go online for the most current information.

The following preliminary course listing was compiled in January, 2015. Since that time, some courses may have been added and other courses cancelled. Please refer to the Summer Session Class Schedule online at www.montana.edu/students (under “Academic Info”) for the most current information as well as class dates, times, locations, and instructors (access instructions, p. 24). The schedule will be mostly complete by January 31, 2015.

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 Accounting, 3 cr.
ACTG 202—Principles of Managerial Accounting, 3 cr.
ACTG 223—Principles of Financial Accounting II, 3 cr.
ACTG 515—Professional Services Management, 3 cr.
ACTG 524—International Accounting, 3 cr.

ACTIVITIES – GENERAL
ACT 110—Beginning Weight Training, 1 cr.
ACT 115—Soccer, 1 cr.
ACT 150—Beginning Yoga, 1 cr.
ACT 163—Race Training 5/10 K, 1 cr.
ACT 169—Beginning Tennis, 1 cr.

AGRICULTURAL EDUCATION
AGED 140US—Leadership Development for Agriculture, 3 cr.

AMERICAN STUDIES
AMST 401R—Seminar in American Studies, 4 cr. (online)
AMST 502—Research in American Studies, 3 cr.

ANTHROPOLOGY
ANTY 225IS—Culture, Language, and Society, 3 cr. (online)
ANTY 252IS—Mysteries of the Past, 3 cr. (online)
ANTY 343—Popular Culture – Japan, 3 cr. (online)

ART – ART HISTORY
ARTH 201IA—Art of World Civilization II, 4 cr.
ARTH 310—Art and Architecture of Ancient Mesoamerica, 3 cr.
*See p. 48 for course description

ART – VISUAL ARTS
ARTZ 105RA—Visual Language Drawing, 4 cr.
ARTZ 106RA—Visual Language – 2-D Foundations, 4 cr.
ARTZ 231—Ceramics I, 4 cr.
ARTZ 374—Serigraphy, 5 cr.
*See p. 48-49 for course description

BIOCHEMISTRY
BCH 380—Biochemistry, 5 cr.

BIOLOGY
BIOL 409—Advanced Human Torso Anatomy, 4 cr.

BIOLOGY – ECOLOGICAL
BIOE 416—Alpine Ecology, 3 cr.
BIOE 420—Field Ornithology, 3 cr.
BIOE 421—Yellowstone Wildlife Ecology, 3 cr.

BIOLOGY – GENERAL
BIOB 375—General Genetics, 3 cr.
BIOB 497—Educational Methods: Biology (Cellular and Neurobiology), 2 cr.
BIOB 497—Educational Methods: Biology (Ecology), 2 cr.
BIOLOGY – HUMAN
BIOH 201—Human Anatomy and Physiology I, 5 cr.

BUSINESS – FINANCE
BFIN 322—Business Finance, 3 cr.

BUSINESS – GENERAL
BGEN 204—Business Fundamentals, 3 cr.
BGEN 242D—Introduction to International Business, 3 cr. (online)
BGEN 361—Principles of Business Law, 3 cr.
BGEN 499—Business Senior Seminar, 4 cr. (online)

BUSINESS – MANAGEMENT
BMGT 205—Professional Communication Fundamentals, 3 cr. (online)
BMGT 335—Management and Organization, 3 cr. (online)

BUSINESS – MANAGEMENT INFORMATION SYSTEMS
BMIS 211—Introduction to Business Decision Support, 3 cr.
BMIS 311—Management Information Systems, 3 cr. (online)

BUSINESS – MARKETING
BMKT 325—Principles of Marketing, 3 cr. (online)

CHEMISTRY
CHMY 121IN—Introduction to General Chemistry, 4 cr.
CHMY 123—Introduction to Organic and Biochemistry Principles, 4 cr.
CHMY 141—College Chemistry I, 4 cr.
CHMY 143—College Chemistry II, 4 cr.
CHMY 321—Organic Chemistry I, 4 cr.
CHMY 323—Organic Chemistry II, 4 cr.

COACHING
COA 205—Introduction to Coaching, 3 cr. (online)
COA 395—Practicum: Coaching Application, 1 cr.
COA 405—Advanced Concepts in Coaching, 3 cr. (online)

COMMUNICATIONS
COMX 111US*(Formerly COM 110US)—Introduction to Public Speaking, 3 cr.
*Sections offered both first and second 6-week sessions

COMMUNITY HEALTH
CHTH 205—Drugs and Society, 3 cr. (online)
CHTH 317—Health Behavior Theories, 3 cr. (online)
CHTH 435—Human Response to Stress, 3 cr. (online)

COMPUTER APPLICATIONS
CAPP 120—Introduction to Computers, 3 cr. (online)

COMPUTER SCIENCE
CS 145RA—Web Design, 3 cr. (online)

COMPUTER SCIENCE – PROGRAMMING
CSCI 107—Joy and Beauty of Computing, 3 cr
CSCI 111—Programming with Java I, 4 cr
CSCI 112—Programming with C I, 3 cr.
CSCI 215—Social and Ethical Issues in CS, 3cr
CSCI 232—Data Structures and Algorithms, 4 cr.
CSCI 246—Discrete Structures, 3 cr.
CSCI 338 Computer Science Theory, 3 cr

EARTH SYSTEMS
ERTH 101IN—Earth System Science, 4 cr.

ECONOMICS
ECNS 202—Principles of Macroeconomics, 3 cr.
ECNS 204IS—Microeconomics, 3 cr.

EDUCATION
EDU 330—Emergent Literacy, 3 cr. (on campus/online)
EDU 342—Managing the Learning Environment, 3 cr.
EDU 370—Integrating Technology Into Education, 1 cr. (online)
EDU 397—Methods: K-8 Creative Arts, 3 cr. (on campus/online)
EDU 397—Methods: K-8 Math, 3 cr. (on campus/online)
EDU 408—Professional Issues: K-12, 2 cr. (online)

EDUCATION, CURRICULUM AND INSTRUCTION
EDCI 501—Educational Statistics I, 3 cr.
EDCI 506—Applied Educational Research, 3 cr.
EDCI 531—Contemporary Issues in Education, 3 cr. (online)
EDCI 532—General School Curriculum, 3 cr. (online)
EDCI 534—Literary Assessment and Instruction, 3 cr. (online)
EDCI 542—Creative Processes in Education, 3 cr. (online)
EDCI 571—In-Service Education, 1 cr.

EDUCATIONAL LEADERSHIP
EDLD 564—The Comprehensive Portfolio, 3 cr. (on campus/online)
EDLD 571—In-Service Education, 1-4 cr.

EDUCATION – SPECIAL
EDSP 306—Exceptional Learners 0-21, 3 cr.

ENGINEERING – CHEMICAL
ECHM 323—Chem Eng Mass Transfer Ops, 3 cr.

ENGINEERING – CIVIL
ECIV 220CS—Civil Engineering and Construction: From the Ancient to the Modern, 3 cr. (online)
ECIV 492—Active Transportation Study Abroad, 3 cr.

ENGINEERING – ELECTRICAL
EELE 203—Circuits II for Engineering, 4 cr. (online)
EELE 261—Intro to Logic Circuits 4 cr., (online)

ENGINEERING – GENERAL
EGEN 201—Engineering Mechanics: Statics, 3 cr. (on campus)
EGEN 201—Engineering Mechanics: Statics, 3 cr. (online)
(on campus)
EGEN 202—Engineering Mechanics: Dynamics, 3 cr. (online)
EGEN 203—Applied Mechanics, 3 cr.
EGEN 205—Mechanics of Materials, 3 cr. (on campus)
EGEN 205—Mechanics of Materials, 3 cr. (online)
EGEN 208—Applied Strength of Materials, 3 cr.
EGEN 310R—Multidisciplinary Engineering Design, 3 cr.
EGEN 324—Applied Thermodynamics, 3 cr
EGEN 325—Engineering Economic Analysis, 3 cr.
EGEN 335—Fluid Mechanics, 3 cr. (on campus)
EGEN 335—Fluid Mechanics, 3 cr. (online)

ENGINEERING – MECHANICAL
EMEC 103—CAE I – Engineering Graphics Communications, 2 cr.
EMEC 320—Thermodynamics I, 3 cr
EMEC 403—CAE IV Design Integration, 3cr.

ENGINEERING TECHNOLOGY – MECHANICAL
ETME 215—Manufacturing Processes, 3 cr
ETME 310—Machining and Industrial Safety, 3 cr.
ETME 311—Joining Processes, 3 cr.
ETME 360—Measurements and Instrument Apps. 3 cr.

FAMILY AND CONSUMER SCIENCE
FCS 101S—Individual & Family Development and Well-Being: Lifespan, 3 cr. (online)
FSC 263—Relationships and Family Systems, 3 cr. (online)
FCS 371—Research Methods in Health and Human Development, 3 cr. (online)
FCS 454—Professional Issues – Senior Seminar, 4 cr.

FILM*
FILM 101IH—Understanding Film and Media, 3 cr.
FILM 381—Studies in Film: Italian Cinema, 3 cr.
FILM 481—Advanced Studies in Film: Quentin Tarantino – The Cinema of Cool, 3 cr.
FILM 494—Seminar: Film and Photoboarding, 3 cr.
FILM 494—Seminar: After Effects Bootcamp, 3 cr.
FILM 494—Color Correction with DaVinci Resolve Boot Camp, 3 cr.
FILM 494—Advanced Narrative Production, 3 cr.
*For course descriptions, see FILM section, p. 50-51, in Special Summer Courses.

GEOGRAPHY
GPHY 141D—Geography of World Regions, 3 cr.
GPHY 284—Introduction to GIS Science, 3 cr.

GEOLOGY
GEO 429—Field Geology, 6 cr.

GERMAN
GRMN 101—Elementary German I, 4 cr.
GRMN 102D—Elementary German II, 4 cr.

GRAPHIC DESIGN
GDSN 360—Yellowstone Digital, 3 cr.
GDSN 361—Teton Digital, 3 cr.
GDSN 378—Guerrilla Advertising, 5 cr.

HEALTH
HTH 220—Human Sexuality, 3 cr. (online)
HTH 455—The Ethic of Care, 3 cr.

HISTORY – AMERICAN
HSTA 102IH—American History II, 4 cr. (online)

HISTORY – WORLD
HSTR 101IH—Western Civilization I, 4 cr. (online)
HSTR 205CS—World Environment, 3 cr. (online)
HSTR 436—Armed Conflict in Latin America, 3 cr.
HSTR 468—Modern Turkey, 3 cr. (online)

HORTICULTURE AND LANDSCAPE DESIGN
HORT 345—Organic Market Gardening, 3 cr.

HUMAN DEVELOPMENT – COUNSELING
HDCO 502—Counseling Ethics and Professional Orientation, 2 cr.
HDCO 506—School Counseling Programs, 3 cr.
HDCO 508—Counseling Theories I, 3 cr.
HDCO 524—Consultation and Crisis Counseling: Theory and Practice, 2 cr.
HDCO 526—Adventure Counseling, 3 cr.
HDCO 551—Appraisal, 3 cr.
HDCO 558—Career Counseling, 2 cr.

KINESIOLOGY
KIN 221—Health Anatomy and Physiology, 3 cr. (online)

LITERATURE
LIT 214D—Regional Literature, 3 cr.
LIT 285D—Mythologies, 3 cr. (online)

MATHEMATICS
M 121Q—College Algebra, 3 cr. (online)
M 121Q*—College Algebra, 3 cr. (on campus)
M 145Q*—Mathematics for the Liberal Arts, 3 cr.  
M 151Q*—Precalculus, 4 cr.
M 161Q*—Survey of Calculus, 4 cr.
M 171Q*—Calculus I, 4 cr.
M 172Q*—Calculus II, 4 cr.
M 221—Introduction to Linear Algebra, 3 cr.
M 273Q*—Multivariable Calculus, 4 cr.
M 274*—Introduction to Differential Equations, 4 cr.
M 517—Advanced Mathematical Modeling for Teachers, 3 cr.
M 520—Standards-Based Math for Teachers, 3 cr. (online)
M 524—Linear Algebra for Teachers, 3 cr.
*Sections offered both first and second 6-week sessions

MEDIA ARTS
MART 145RA—Web Design, 3 cr. (online)
### MUSIC – EDUCATION
MUSE 530—Music, Society, Education, 3 cr.

### MUSIC – GENERAL
MUSI 101IA—Enjoyment of Music, 3 cr. (online)
MUSI 106—Music Theory II, 3 cr. (online)
MUSI 203IA—American Popular Music: Reflections of Politics and Society, 3 cr.
MUSI 203IA—American Popular Music: Reflections of Politics and Society, 3 cr (online)
MUSI 307IA—World Music, 3 cr.

### NATIVE AMERICAN STUDIES
NASX 105D—Introduction to Native American Studies, 3 cr.
NASX 232D—Montana Indian Cultures, Histories, Current Issues, 3 cr.
NASX 239—Native North American History through Art and Material Culture, 3 cr.

### NURSING
NRSG 115—Nursing as a Profession, 2 cr. (online)
NRSG 220*—Foundations of Ethical Nursing Practice, 2 cr. (online)
NRSG 225—Foundations for Planning and Providing Clinical Nursing Care, 4 cr.
NRSG 238—Health Assessment Across the Lifespan, 4 cr.
NRSG 258—Principles of Pathophysiology, 3 cr. (online)
NRSG 336—Nursing Pharmacotherapeutics, 3 cr.
NRSG 341—Psychosocial Nursing Concepts, 3 cr.
NRSG 477—Population Based Nursing Care in the Community, 6 cr.
NRSG 487—Nursing Leadership and Management Development, 6 cr.
NRSG 503—Curriculum Development, 3 cr. (online)
NRSG 519—Pharmacotherapeutics for Middle Age Adults, 1 cr. (online)
NRSG 526—Family Mental Health Nursing II, 6 cr. (online)
NRSG 529—Psychopharmacotherapeutics Across the Lifespan, 3 cr. (online)
NRSG 562—Primary Care II for Midlife Families, 6 cr. (on campus/online)
NRSG 609—Advanced Practice Nursing Leadership, 2 cr. (on campus/online)
NRSG 620—Advanced Pharmacology II (Family/Individual), 3 cr. (on campus/online)
NRSG 62—Advanced Clinical I (Family/Individual), 6 cr. (on campus/online)
NRSG 630—Advanced Psychopharmacology II, 3 cr. (on campus/online)
NRSG 631—Advanced Clinical I (Psych/Mental Health), 6 cr. (on campus/online)
NRSG 633—Advanced Clinical III (Psych/Mental Health), 6 cr. (on campus/online)
NRSG 675—DNP Scholarly Project, 2 cr. (on campus/online)

### NUTRITION
NUTR 221CS—Basic Human Nutrition, 3 cr. (online)

### PHILOSOPHY
PHL 101IH—Introduction to Philosophy: Reason and Reality, 3 cr. (online)
PHL 110IH—Introduction to Ethics: Good and Evil, 3 cr. (online)

### PHOTOGRAPHY
PHOT 113RA—Understanding Photography, 3 cr.
PHOT 494-01*—Seminar: Small Town Documentary, 3 cr.
*For course descriptions, see p. 53 in the Special Summer Courses section.

### PHYSICS
PHSX 205—College Physics I, 4 cr.
PHSX 207—College Physics II, 4 cr.

### PHYSICS – ASTRONOMY
ASTR 110IN—Introduction to Astronomy: Mysteries of the Sky, 3 cr.

### POLITICAL SCIENCE
PSCI 210IS—Introduction to American Government, 3 cr. (online)
PSCI 439—International Human Rights, 3 cr.
PSCI 454—Cinema and Political Theory, 3 cr.
**New!** PSCI 499R—Senior Project/Thesis, 3 cr.

### PSYCHOLOGY
PSYX 100IS—Introductory Psychology, 3 cr.
**New!** PSYX 110IS—Honors Introduction to Psychology, 3 cr.
**New!** PSYX 223—Research Design and Analysis I, 4 cr.
**New!** PSYX 225—Research Design and Analysis II, 3 cr.
**New!** PSYX 230—Developmental Psychology, 3 cr.
PSYX 375—Behavior Modification, 3 cr. (online)
**New!** PSYX 385—Psychology of Personality, 3 cr.
PSYX 462—Psychology of Prejudice, 3 cr.
PSYX 494—Field Practicum in Applied Psychology, 3-12 cr. (online)
**New!** PSYX 499R—Senior Thesis/Capstone, 3 cr.

### RELIGIOUS STUDIES
RLST 100D—Introduction to the Study of Religion, 3 cr. (online)
RLST 203D—Buddhist Traditions, 3 cr. (online)

### SOCIOLOGY
SOCI 101IS—Introduction to Sociology, 3 cr. (online)
**New!** SOCI 221IS—Criminal Justice System, 3 cr. (online)
SOCI 318R—Sociological Research Methods, 3 cr.
SOCI 332—Sociology of the Family, 3 cr. (online)
SOCI 434—Sociology of Human Sexuality, 3 cr. (online)

*Sections offered both first and second 6-week sessions*
SPANISH
SPNS 101—Elementary Spanish I, 4 cr.
SPNS 102D—Elementary Spanish II, 4 cr.
SPNS 335IH—Travel in Latin America Literature and Film, 3 cr.

STATISTICS
STAT 216Q*—Introduction to Statistics, 3 cr. (on campus)
STAT 216Q*—Introduction to Statistics, 3 cr. (online)
STAT 217Q*—Intermediate Statistical Concepts, 3 cr.
*Sections offered both first and second 6-week sessions

SURVEYING
SRVY 230—Introduction to Surveying for Engineers, 3 cr.

SUSTAINABLE FOOD AND BIOENERGY SYSTEMS
SFBS 296—Practicum: Towne's Harvest, 3 cr.
SFBS 541—Culinary Marketing: Farm to Table, 3 cr.
(co-convened with SFBS 445R)

TECHNOLOGY EDUCATION
TE 250CS—Technology and Society, 3 cr. (online)

THEATRE
THTR 122IA—Acting for Non-Majors, 3 cr.

UNIVERSITY STUDIES
COMX 111US—Public Speaking, 3 cr.
(Formerly COM 110US)
US 121US—Education, Social Issues, and the Digital Age, 3 cr. (online)

WRITING
WRIT 101W*—College Writing I, 3 cr. (on campus)
WRIT 101W—College Writing I, 3 cr. (online)
WRIT 201*—College Writing II, 3 cr.
*Sections offered both first and second 6-week sessions

Please also see additional course offerings in the following sections:
- Summer Master's Degree Programs, p. 52
- Extended University Courses, p. 56
- Gallatin College Programs, p. 59

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.

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>CONTACT INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTG</td>
<td>Jake Jabs College of Business &amp; Entrepreneurship 994-4681 <a href="mailto:business@montana.edu">business@montana.edu</a></td>
</tr>
<tr>
<td>AGBE</td>
<td>Dept. of Agricultural Economics and Economics 994-3702 <a href="mailto:aboyd@montana.edu">aboyd@montana.edu</a></td>
</tr>
<tr>
<td>AGED</td>
<td>Division of Agricultural Education 994-2132 <a href="mailto:aged@montana.edu">aged@montana.edu</a></td>
</tr>
<tr>
<td>AMST</td>
<td>College of Letters and Science 994-4288 <a href="mailto:dcherry@montana.edu">dcherry@montana.edu</a></td>
</tr>
<tr>
<td>ANTH</td>
<td>Dept. of Sociology &amp; Anthropology 994-4201 <a href="mailto:crismond@montana.edu">crismond@montana.edu</a></td>
</tr>
<tr>
<td>ARCH</td>
<td>School of Architecture 994-5772 <a href="mailto:rortego@montana.edu">rortego@montana.edu</a></td>
</tr>
<tr>
<td>ARNR</td>
<td>Dept. of Animal &amp; Range Sciences 994-5582 <a href="mailto:deniset@montana.edu">deniset@montana.edu</a></td>
</tr>
<tr>
<td>ARTH</td>
<td>School of Art 994-4501 <a href="mailto:art@montana.edu">art@montana.edu</a></td>
</tr>
<tr>
<td>ARTZ</td>
<td>School of Art 994-4501 <a href="mailto:art@montana.edu">art@montana.edu</a></td>
</tr>
<tr>
<td>ASTR</td>
<td>Dept. of Physics 994-6186 <a href="mailto:sbarutha@physics.montana.edu">sbarutha@physics.montana.edu</a></td>
</tr>
<tr>
<td>BCI</td>
<td>Dept. of Chemistry &amp; Biochemistry 994-4801 <a href="mailto:chemistry@chemistry.montana.edu">chemistry@chemistry.montana.edu</a></td>
</tr>
<tr>
<td>BFIN</td>
<td>Jake Jabs College of Business &amp; Entrepreneurship 994-4681 <a href="mailto:business@montana.edu">business@montana.edu</a></td>
</tr>
<tr>
<td>BGEN</td>
<td>Jake Jabs College of Business &amp; Entrepreneurship 994-4681 <a href="mailto:business@montana.edu">business@montana.edu</a></td>
</tr>
<tr>
<td>BIOB</td>
<td>Dept. of Ecology 994-2911 <a href="mailto:ecology@montana.edu">ecology@montana.edu</a></td>
</tr>
<tr>
<td>BIOE</td>
<td>Dept. of Ecology 994-2911 <a href="mailto:ecology@montana.edu">ecology@montana.edu</a></td>
</tr>
<tr>
<td>BIOH</td>
<td>Dept. of Cell Biology &amp; Neuroscience 994-5120 <a href="mailto:cahn@cns.montana.edu">cahn@cns.montana.edu</a></td>
</tr>
<tr>
<td>DEPARTMENTAL CONTACTS</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>--</td>
</tr>
<tr>
<td>BIOL  Dept. of Cell Biology &amp; Neuroscience</td>
<td>994-5120  <a href="mailto:cbn@cns.montana.edu">cbn@cns.montana.edu</a></td>
</tr>
<tr>
<td>BIO0  Dept. of Ecology</td>
<td>994-2911  <a href="mailto:ecology@montana.edu">ecology@montana.edu</a></td>
</tr>
<tr>
<td>BMGT  Jake Jabs College of Business &amp; Entrepreneurship</td>
<td>994-4681  <a href="mailto:business@montana.edu">business@montana.edu</a></td>
</tr>
<tr>
<td>BMIN  Jake Jabs College of Business &amp; Entrepreneurship</td>
<td>994-4681  <a href="mailto:business@montana.edu">business@montana.edu</a></td>
</tr>
<tr>
<td>BMKT  Jake Jabs College of Business &amp; Entrepreneurship</td>
<td>994-4681  <a href="mailto:business@montana.edu">business@montana.edu</a></td>
</tr>
<tr>
<td>BREN  Dept. of Civil Engineering</td>
<td>994-2111  <a href="mailto:cedept@ce.montana.edu">cedept@ce.montana.edu</a></td>
</tr>
<tr>
<td>CAA  College of Arts &amp; Architecture</td>
<td>994-4405  <a href="mailto:mbyron@montana.edu">mbyron@montana.edu</a></td>
</tr>
<tr>
<td>CE  Dept. of Civil Engineering</td>
<td>994-2111  <a href="mailto:cedept@ce.montana.edu">cedept@ce.montana.edu</a></td>
</tr>
<tr>
<td>CET  Dept. of Civil Engineering</td>
<td>994-2111  <a href="mailto:cedept@ce.montana.edu">cedept@ce.montana.edu</a></td>
</tr>
<tr>
<td>CHBE  Dept. of Chemical &amp; Biological Engineering</td>
<td>994-2221  <a href="mailto:chbe@coe.montana.edu">chbe@coe.montana.edu</a></td>
</tr>
<tr>
<td>CHMY  Dept. of Chemistry &amp; Biochemistry</td>
<td>994-4801  <a href="mailto:chemistry@chemistry.montana.edu">chemistry@chemistry.montana.edu</a></td>
</tr>
<tr>
<td>CHTH  Dept. of Health &amp; Human Development</td>
<td>994-4001  <a href="mailto:hhd@montana.edu">hhd@montana.edu</a></td>
</tr>
<tr>
<td>COA  Dept. of Health &amp; Human Development</td>
<td>994-4001  <a href="mailto:hhd@montana.edu">hhd@montana.edu</a></td>
</tr>
<tr>
<td>COM  University Studies</td>
<td>994-7872  <a href="mailto:dmclaugh@montana.edu">dmclaugh@montana.edu</a></td>
</tr>
<tr>
<td>CS  Dept. of Computer Science</td>
<td>994-4780  <a href="mailto:csinfo@cs.montana.edu">csinfo@cs.montana.edu</a></td>
</tr>
<tr>
<td>CSCI  Dept. of Computer Science</td>
<td>994-4780  <a href="mailto:csinfo@cs.montana.edu">csinfo@cs.montana.edu</a></td>
</tr>
<tr>
<td>ECNS  Dept. of Agricultural Economics &amp; Economics</td>
<td>994-3702  <a href="mailto:aboyd@montana.edu">aboyd@montana.edu</a></td>
</tr>
<tr>
<td>EDCI  Dept. of Education: Undergraduate Courses</td>
<td>994-3120  <a href="mailto:educ@montana.edu">educ@montana.edu</a></td>
</tr>
<tr>
<td>EDEC  Dept. of Education: Undergraduate Courses</td>
<td>994-3120  <a href="mailto:educ@montana.edu">educ@montana.edu</a></td>
</tr>
<tr>
<td>EDECI  Dept. of Education: Undergraduate Courses</td>
<td>994-3120  <a href="mailto:educ@montana.edu">educ@montana.edu</a></td>
</tr>
<tr>
<td>ESEG  Dept. of Education: Undergraduate Courses</td>
<td>994-3120  <a href="mailto:educ@montana.edu">educ@montana.edu</a></td>
</tr>
<tr>
<td>EELE  Dept. of Electrical &amp; Computer Engineering</td>
<td>994-2505  <a href="mailto:ecedept@ece.montana.edu">ecedept@ece.montana.edu</a></td>
</tr>
<tr>
<td>EFIN  Dept. of Mechanical &amp; Industrial Engineering</td>
<td>994-2203  <a href="mailto:kathy.campbell@me.montana.edu">kathy.campbell@me.montana.edu</a></td>
</tr>
<tr>
<td>EM  Dept. of Civil Engineering</td>
<td>994-2111  <a href="mailto:cedept@ce.montana.edu">cedept@ce.montana.edu</a></td>
</tr>
<tr>
<td>ENGL  Dept. of English</td>
<td>994-3768  <a href="mailto:english@msu.montana.edu">english@msu.montana.edu</a></td>
</tr>
<tr>
<td>ENGR  College of Engineering</td>
<td>994-2272  <a href="mailto:coedeansoffice@coe.montana.edu">coedeansoffice@coe.montana.edu</a></td>
</tr>
<tr>
<td>ENVE  Dept. of Civil Engineering</td>
<td>994-2111  <a href="mailto:cedept@ce.montana.edu">cedept@ce.montana.edu</a></td>
</tr>
<tr>
<td>ERTH  Dept. of Earth Sciences</td>
<td>994-3331  <a href="mailto:earth@montana.edu">earth@montana.edu</a></td>
</tr>
<tr>
<td>ESOF  Dept. of Computer Science</td>
<td>994-4780  <a href="mailto:csinfo@cs.montana.edu">csinfo@cs.montana.edu</a></td>
</tr>
<tr>
<td>FCS  Dept. of Health &amp; Human Development</td>
<td>994-4001  <a href="mailto:hhd@montana.edu">hhd@montana.edu</a></td>
</tr>
<tr>
<td>FRCH  Dept. of Modern Languages and Literatures</td>
<td>994-4448  <a href="mailto:tracy@montana.edu">tracy@montana.edu</a></td>
</tr>
<tr>
<td>GDSN  School of Art</td>
<td>994-4501  <a href="mailto:art@montana.edu">art@montana.edu</a></td>
</tr>
<tr>
<td>GEO  Dept. of Earth Sciences</td>
<td>994-3331  <a href="mailto:earth@montana.edu">earth@montana.edu</a></td>
</tr>
<tr>
<td>GPHY  Dept. of Earth Sciences</td>
<td>994-3331  <a href="mailto:earth@montana.edu">earth@montana.edu</a></td>
</tr>
<tr>
<td>HDCO  Dept. of Health &amp; Human Development</td>
<td>994-3241  <a href="mailto:hhdgrad@montana.edu">hhdgrad@montana.edu</a></td>
</tr>
<tr>
<td>HORT  Dept. of Plant Sciences &amp; Plant Pathology</td>
<td>994-4832  <a href="mailto:plantsciences@montana.edu">plantsciences@montana.edu</a></td>
</tr>
<tr>
<td>HSTA  Dept. of History &amp; Philosophy</td>
<td>994-4395  <a href="mailto:history@montana.edu">history@montana.edu</a></td>
</tr>
<tr>
<td>HSTR  Dept. of History &amp; Philosophy</td>
<td>994-4395  <a href="mailto:history@montana.edu">history@montana.edu</a></td>
</tr>
<tr>
<td>HTH  Dept. of Health and Human Development</td>
<td>994-4001  <a href="mailto:hhd@montana.edu">hhd@montana.edu</a></td>
</tr>
<tr>
<td>DEPARTMENTAL CONTACTS</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>IMSE</td>
<td>Dept. of Mechanical &amp; Industrial Engineering</td>
</tr>
<tr>
<td>KIN</td>
<td>Dept. of Health &amp; Human Development</td>
</tr>
<tr>
<td>LAC</td>
<td>Dept. of Health and Human Development</td>
</tr>
<tr>
<td>LIBR</td>
<td>Library</td>
</tr>
<tr>
<td>LING</td>
<td>Dept. of English</td>
</tr>
<tr>
<td>LIT</td>
<td>Dept. of English</td>
</tr>
<tr>
<td>LRES</td>
<td>Dept. of Land Resources &amp; Environmental Sciences</td>
</tr>
<tr>
<td>M</td>
<td>Dept. of Mathematical Sciences</td>
</tr>
<tr>
<td>MB</td>
<td>Dept. of Microbiology</td>
</tr>
<tr>
<td>MBEH</td>
<td>Dept. of Microbiology</td>
</tr>
<tr>
<td>ME</td>
<td>Dept. of Mechanical &amp; Industrial Engineering</td>
</tr>
<tr>
<td>MEDS</td>
<td>WWAMI Medical Program</td>
</tr>
<tr>
<td>MET</td>
<td>Dept. of Mechanical &amp; Industrial Engineering</td>
</tr>
<tr>
<td>ML</td>
<td>Dept. of Modern Languages &amp; Literatures</td>
</tr>
<tr>
<td>MSSE</td>
<td>Intercollege Programs for Science Education</td>
</tr>
<tr>
<td>MTA</td>
<td>School of Film &amp; Photography</td>
</tr>
<tr>
<td>MUSE</td>
<td>School of Music</td>
</tr>
<tr>
<td>MUSI</td>
<td>School of Music</td>
</tr>
<tr>
<td>MUST</td>
<td>School of Music</td>
</tr>
<tr>
<td>NASX</td>
<td>Dept. of Native American Studies</td>
</tr>
<tr>
<td>NRSG</td>
<td>College of Nursing</td>
</tr>
<tr>
<td>NUTR</td>
<td>Dept. of Health &amp; Human Development</td>
</tr>
<tr>
<td>PHL</td>
<td>Dept. of History &amp; Philosophy</td>
</tr>
<tr>
<td>PHOT</td>
<td>School of Film &amp; Photography</td>
</tr>
<tr>
<td>PHSX</td>
<td>Dept. of Physics</td>
</tr>
<tr>
<td>PSCI</td>
<td>Dept. of Political Science</td>
</tr>
<tr>
<td>PSPP</td>
<td>Dept. of Plant Sciences &amp; Plant Pathology</td>
</tr>
<tr>
<td>PSYX</td>
<td>Dept. of Psychology</td>
</tr>
<tr>
<td>RLST</td>
<td>Dept. of History &amp; Philosophy</td>
</tr>
<tr>
<td>SFBS</td>
<td>Dept. of Health &amp; Human Development</td>
</tr>
<tr>
<td>SOCI</td>
<td>Dept. of Sociology &amp; Anthropology</td>
</tr>
<tr>
<td>SPNS</td>
<td>Dept. of Modern Languages &amp; Literatures</td>
</tr>
<tr>
<td>STAT</td>
<td>Dept. of Mathematical Sciences</td>
</tr>
<tr>
<td>TE</td>
<td>Dept. of Education: Undergraduate Courses</td>
</tr>
<tr>
<td>THTR</td>
<td>School of Film &amp; Photography</td>
</tr>
<tr>
<td>US</td>
<td>University Studies</td>
</tr>
<tr>
<td>WILD</td>
<td>Dept. of Ecology</td>
</tr>
<tr>
<td>WRIT</td>
<td>Dept. of English</td>
</tr>
</tbody>
</table>
2015 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 beginning on p. 36 reflect the summer class schedule as of December 2014. 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 2015 Summer Class Schedule (access instructions, p. 26)
- 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 section starting on p. 6 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 starting on p. 4 for more information. Online courses and on-campus courses are listed together, along with Course Reference Numbers (CRN), in the Summer Class Schedule (see access instructions, p. 26).

- 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 to p. 13 for a 2015 summer fee schedule.

- 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; 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.

2015 Summer Session Dates

<table>
<thead>
<tr>
<th>Session</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>First session (6 weeks)</td>
<td>May 18-June 26</td>
</tr>
<tr>
<td>Second session (6 weeks)</td>
<td>June 29-Aug. 7</td>
</tr>
<tr>
<td>Full semester (12 weeks)</td>
<td>June 18-Aug. 7</td>
</tr>
<tr>
<td>Intersession</td>
<td>Dates vary; see individual courses</td>
</tr>
</tbody>
</table>

The following courses will be offered fully online during Summer Session 2015.

Undergraduate Courses
Enroll through Registrar

AMST 401R—Seminar in American Studies
6 weeks (first session), 4 cr.
Instructor: Robert Rydell

ANTY 225IS-Culture, Language, and Society
6 weeks (first session), 3 cr.
Instructor: Cristina Pop

ANTY 252IS—Mysteries of the Past
6 weeks (first session), 3 cr.
Instructor: Michael Neeley

ANTY 343—Popular Culture – Japan
6 weeks (first session), 3 cr.
Instructor: Tomomi Yamaguchi

BGEN 242D—Introduction to International Business
6 weeks (first session), 3 cr.
Instructor: Mike Kroff

BGEN 499—Business Senior Seminar
6 weeks (first session), 4 cr.
Instructor: Myleen Leary

BMGT 205—Professional Communication Fundamentals
6 weeks (first session), 3 cr.
Instructor: Tammy Olszyn

BMGT 335—Management and Organization
6 weeks (first session), 3 cr.
Instructor: Virginia Bratton

BMIS 311—Management Information Systems
12 weeks (full semester), 3 cr.
Instructor: Jerry Carvalho

BMKT 325—Principles of Marketing
6 weeks (first session), 3 cr.
Instructor: TBA

CHTH 205—Drugs and Society
6 weeks (first session), 3 cr.
Instructor: TBA

CHTH 317—Healthy Behavior Theories
6 weeks (first session), 3 cr.
Instructor: Wendy Morrison

CHTH 435—Human Response to Stress
6 weeks (offered both first and second sessions), 3 cr.
Instructor: Dawn Tarabochia

COA 205—Introduction to Coaching
12 weeks (full semester), 3 cr.
Instructor: Craig Stewart

COA 405—Advanced Concepts in Coaching
12 weeks (full semester), 3 cr.
Instructor: Craig Stewart

CS 145RA—Web Design (cross-listed with MART 145RA)
6 weeks (second session), 3 cr.
Instructors: Hunter Lloyd

ECIV 220CS—Civil Engineering and Construction: From the Ancient to the Modern
6 weeks (first session), 3 cr.
Instructor: Anders Larsson

EDU 370—Integrating Technology into Education
8 weeks (May 11-June 5), 2 cr.
Instructor: Nicholas Lux

EDU 408—Professional Issues: K-12
12 weeks (full semester), 2cr.
Instructor: Kathryn Will-Dubyak

EELE 203—Circuits II for Engineering
12 weeks (full semester), 4 cr.
Instructor: James Becker

EELE 261—Intro to Logic Circuits
12 Weeks (full semester), 4 cr.
Instructor: Brock LaMeres

EGEN 201—Engineering Mechanics: Statics
6 weeks (first session), 3 cr.
Instructor: Anders Larsson

EGEN 202—Engineering Mechanics: Dynamics
6 weeks (first session), 3 cr.
Instructor: TBA

EGEN 205—Mechanics of Materials
6 weeks (second session), 3 cr.
Instructor: TBA

EGEN 335—Fluid Mechanics
6 weeks (second session), 3 cr.
Instructor: Joel Cahoon

FCS 101IS—Individual & Family Development and Well-Being: Lifespan
6 weeks (first session), 3 cr.
Instructor: Holly Hunts

FCS 263—Relationships and Family Systems
6 weeks (first session), 3 cr.
Instructor: TBA

FCS 371—Research Methods in Health and Human Development
8 weeks (June 16-Aug. 7), 3 cr.
Instructor: Craig Stewart

HSTA 102IH—American History II
6 weeks (first session), 4 cr.
Instructor: Tim LeCain

HSTR 101IH—Western Civilization I
6 weeks (first session), 4 cr.
Instructor: TBA

HSTR 205CS—World Environment
6 weeks (first session), 3 cr.
Instructor: Brett Walker

HSTR 468—Modern Turkey
6 weeks (second session), 3 cr.
Instructor: James Meyer

HTH 220—Human Sexuality
6 weeks (first session), 3 cr.
Instructor: TBA

KIN 221—Health Anatomy and Physiology
8 weeks (June 16-Aug. 7), 3 cr.
Instructor: Ryan Johnson
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Duration</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 285D</td>
<td>Mythologies</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>Marvin Lansverk</td>
</tr>
<tr>
<td>M 096</td>
<td>Survey of Algebra</td>
<td>6 weeks (first session)</td>
<td>4 cr.</td>
<td>TBA</td>
</tr>
<tr>
<td>M121Q</td>
<td>College Algebra</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>TBA</td>
</tr>
<tr>
<td>M 520</td>
<td>Standards-Based Math for Teachers</td>
<td>8 weeks (intersession)</td>
<td>3 cr.</td>
<td>TBA</td>
</tr>
<tr>
<td>MART 145RA</td>
<td>Web Design (cross-listed with CS 145RA)</td>
<td>6 weeks (second session)</td>
<td>3 cr.</td>
<td>Hunter Lloyd</td>
</tr>
<tr>
<td>MUSI 101A</td>
<td>Enjoyment of Music</td>
<td>6 weeks (offered both first and second sessions)</td>
<td>3 cr.</td>
<td>Kirk Aamot</td>
</tr>
<tr>
<td>MUSI 106</td>
<td>Music Theory II, 3 cr.</td>
<td>TBD, 3 cr.</td>
<td></td>
<td>Julia Cory-Slovarp</td>
</tr>
<tr>
<td>NUTR 221CS</td>
<td>Basic Human Nutrition</td>
<td>12 weeks (full semester)</td>
<td>3 cr.</td>
<td>TBA</td>
</tr>
<tr>
<td>PHL 101IH</td>
<td>Introduction to Philosophy: Reason and Reality</td>
<td>6 weeks (offered both first and second sessions)</td>
<td>3 cr.</td>
<td>Prasanta Bandyopadhyay</td>
</tr>
<tr>
<td>PHL 110IH</td>
<td>Introduction to Ethics: Good and Evil</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>Kristen Intemann</td>
</tr>
<tr>
<td>PSCI 210IS</td>
<td>Introduction to American Government</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>Elizabeth Shanahan</td>
</tr>
<tr>
<td>PSYX 375</td>
<td>Behavior Modification</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>Shawna Heiser</td>
</tr>
<tr>
<td>PSYX 494</td>
<td>Field Practicum in Applied Psychology</td>
<td>12 weeks (full semester)</td>
<td>3-12 cr.</td>
<td>Shawna Heiser</td>
</tr>
<tr>
<td>RLST 100D</td>
<td>Introduction to the Study of Religion</td>
<td>6 weeks (second session)</td>
<td>3 cr.</td>
<td>Holly Grether</td>
</tr>
<tr>
<td>RLST 203D</td>
<td>Buddhist Traditions</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>TBA</td>
</tr>
<tr>
<td>SOCI 101IS</td>
<td>Introduction to Sociology</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>Steve Swinford</td>
</tr>
<tr>
<td>SOCI 221IS</td>
<td>Criminal Justice System</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>Scott Myers</td>
</tr>
<tr>
<td>SOCI 332</td>
<td>Sociology of the Family</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>Danielle Hidalgo</td>
</tr>
<tr>
<td>SOCI 434</td>
<td>Sociology of Human Sexuality</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>Danielle Hidalgo</td>
</tr>
<tr>
<td>STAT 216Q</td>
<td>Introduction to Statistics</td>
<td>6 weeks (offered both first and second sessions)</td>
<td>3 cr.</td>
<td>TBA</td>
</tr>
<tr>
<td>TE 250CS</td>
<td>Technology and Society</td>
<td>12 weeks (May 18-July 10)</td>
<td>3 cr.</td>
<td>Lidia Haughey</td>
</tr>
<tr>
<td>US 121US</td>
<td>Education, Social Issues, and the Digital Age</td>
<td>6 weeks (second session)</td>
<td>3 cr.</td>
<td>TBA</td>
</tr>
<tr>
<td>WRIT 101W</td>
<td>College Writing I</td>
<td>6 weeks (first session)</td>
<td>3 cr.</td>
<td>TBA</td>
</tr>
</tbody>
</table>

**NURSING—Undergraduate and Graduate Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Duration</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSG 503</td>
<td>Curriculum Development</td>
<td>3 cr.</td>
<td></td>
<td>TBA</td>
</tr>
<tr>
<td>NRSG 519</td>
<td>Pharmacotherapeutics for Middle Age Adults</td>
<td>1 cr.</td>
<td></td>
<td>TBA</td>
</tr>
<tr>
<td>NRSG 526</td>
<td>Family Mental Health Nursing II</td>
<td>6 cr.</td>
<td></td>
<td>TBA</td>
</tr>
<tr>
<td>NRSG 529</td>
<td>Psychopharmacotherapeutics Across the Lifespan</td>
<td>3 cr.</td>
<td></td>
<td>TBA</td>
</tr>
</tbody>
</table>

Course descriptions available at [http://www.montana.edu/wwwcat/courses/nrsg.html](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)

**EDUCATION—Graduate Courses**

Summer 2015 Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Duration</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDCI 531</td>
<td>Contemporary Issues in Education</td>
<td>3 cr.</td>
<td></td>
<td>TBA</td>
</tr>
<tr>
<td>EDCI 532</td>
<td>General School Curriculum</td>
<td>3 cr.</td>
<td></td>
<td>TBA</td>
</tr>
<tr>
<td>EDCI 534</td>
<td>Literary Assessment and Instruction</td>
<td>3 cr.</td>
<td></td>
<td>TBA</td>
</tr>
<tr>
<td>EDCI 542</td>
<td>Creative Processes in Education</td>
<td>3 cr.</td>
<td></td>
<td>TBA</td>
</tr>
</tbody>
</table>

Course descriptions available at [http://www.montana.edu/wwwcat/courses/courses2.html](http://www.montana.edu/wwwcat/courses/courses2.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)

**SUMMER MASTER’S DEGREE PROGRAMS**

**Note:** The following programs include both online and on-campus courses. Only the Summer 2015 online offerings are listed below. For complete program details and course listings, please see the Summer Master’s Degree Programs section starting on p. 56.
Master of Science in Mathematics (Mathematics Education Option)

Enroll through Registrar
M 520 – Standards-Based Math for Teachers, 3 cr.

Enroll through Extended University
M 518—Statistics for Teachers, 3 cr.

Master of Science in Science Education (MSSE)

Enroll through Extended University
BIOE 513—Terrestrial Ecology of Plains and Prairies, 1 cr.
BIOE 519—Biology of Riparian Zones and Wetlands, 2 cr.
BIOE 591—Anatomy and Physiology, 3 cr.
CHMY 591—Exploring Chemistry for Teachers, 3 cr.
CHMY 591—Chemistry of the Environment: Water, Air, Earth, 3 cr.
CHMY 591—Exploring Biochemistry for Teachers II, 3 cr.
EDCI 536—Construction of Curriculum, 3 cr.
MB 591—Biofilms: The Biodiversity of Slime, 3 cr.
MSSE 501—Inquiry through Science and Engineering Practices, 2 cr.
MSSE 591—Capstone Data Analysis, 2 cr.
MSSE 591—Web Tools for Science Teachers, 3 cr.

Course descriptions available at http://www.montana.edu/wwwcat/courses/courses2.html
Course schedule available at https://atlas.montana.edu:9000/pls/bzagent/bzskcrse.PW_SelSchClass (select Term, Subject, and Search Class)

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, and members receive a discount on some courses.

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 2015 Courses
Enroll through Extended University at eu.montana.edu/NTEN

BIOL 591—Plant Science: It Grows on You
June 8-July 19, 1 credit
Designed for K-8 grade teachers

This course will look at familiar seeds and their early growth into seedlings (with experimentation with the seedlings). You will grow the little mustard known as Brassica, the Wisconsin Fast Plant. It is called the fast plant because it goes from seed to seedling to mature plant with flowers and fruits, and back to seed, in six weeks. In order to get the plant to grow satisfactorily, you must have a grow-light (shipped as part of your materials) that can be on 24/7 (24 hours a day all week) for the entire six weeks, and you must get the seeds planted on Day 0.

The goals of this course are to:
• Watch seeds germinate
• Learn about uptake of water in seeds
• Think about seeds as food
• Observe how plants respond to gravity
• Learn the parts of a flower
• Act like a pollinating bee
• Watch a flower part turn into fruit with seeds

You will keep journals with growth data, answer questions from the instructor based on your journals and the manual, and participate in discussions. If you are already familiar with Wisconsin Fast Plants, you can participate in this class with more experimentation with your plants.

EDCI 591—Environmental Science Education: Summer Ecological Field Studies
May 4-June 19, 3 credits
Designed for 6-12 grade teachers

This course is designed for educators of children in grades 6-12 to learn and practice basic ecological field techniques and integrate them into their instruction. This course focuses on summer field ecological studies including stream, forest, plant and bird studies. All studies will be completed outdoors in your local environment. A wide variety of field study techniques will be presented and the participants will share the results of the studies. Basic ecological concepts will be presented in the context of the field studies. Participants will have many opportunities to share their views.
The purpose of this course is to introduce a variety of topics related to the environment and education. This course is a great opportunity to meet and interact with educators throughout the U.S. whose work focuses on ecology and young people.

Summer ecological field study activities will include:
• Herbarium compilation
• Local flora description; plants species list
• Vertical structure of a forest
• Grass, canopy and flying invertebrates population
• Birds' nesting behavior
• Complex comparative description of small rivers and streams
• Study of aquatic invertebrates and assessment of environmental status
• Plankton investigation in the near shore part of lake or pond
• The estimation of ecological situation of grasslands and meadows using ecological ordination techniques
• The estimation of ecological health of the forest based on leaf symmetry observations

This is a practical course in teaching about the environment and working with children. We are looking for a good distribution of 6-12 grade educators and would like representation from as many regions of the U.S. as possible. This will help insure a wide variety of results and good opportunities to compare ecosystems and regions of the country. We also want individuals who are planning to implement the field study techniques in their classroom or with groups of students in informal settings. We will encourage you to share how you will adapt or adopt these techniques to your own teaching and ecological situation. Everyone’s situation is different and we can learn much from each other. It is not required that you actually teach these field studies to children as part of the course but we do encourage you to do the studies with other people who can share their impressions of the activity with you.

EDCI 591—History of Space Flight and Space Technology
June 1-Aug. 14, 3 credits
Designed for 6-12 grade teachers
The purpose of this course is to introduce space science concepts associated with exploration and technology to build core knowledge that can be incorporated into the classroom.

Upon successful completion of this course, students will be able to do the following:
• Timeline robotic exploration and development from 1958 to 2009
• Timeline human exploration from 1961 to 2009
• Understand scientific breakthroughs accredited to the space program
• Understand the historical significance of space flight and the impact it has had on national identity
• Evaluate the potential for future exploration and utilization of solar system resources

ERTH 591—Fundamentals of Oceanography
June 1-Aug. 7, 3 credits
Designed for 7-12 grade teachers
Fundamentals of Oceanography offers an introduction to the physical, biological, chemical and geological processes of the ocean and its ecosystems. Teachers will learn about the complex interactions between these properties, their influence on terrestrial ecosystems and the impacts humans have on these processes. Exciting laboratory exercises can be adapted to be offered at any grade level.

ERTH 591—Understanding Climate Change
June 15-Aug. 7, 3 credits
Designed for 9-12 grade teachers
The science of climate change is a complex subject that balances the physical record and scientific fact with politics, policy, and ethics. This course explores the science of climate change. Students will learn how the climate system works, what factors cause climate to change across different time scales and how those factors interact. We will also explore how climate has changed in the past and how scientists use models, observations and theory to make predictions about future climate. Finally we will examine the possible consequences of climate change for our planet.

The course explores evidence for changes in land and ocean temperature, changes in the cryosphere, sea level and acidity change due to global warming. Students will learn how climate change today is different from past climate cycles and how satellites and other technologies are revealing the global signals of a changing climate. Finally, the course looks at the connection between human activity and the current warming trend and considers some of the potential social, economic and environmental consequences of climate change.

ERTH 591—K-14 Earth System Science
June 8 – Aug. 28, 2 credits
Designed for 7-12 grade teachers
This course describes the workings of the world around us. The everyday: how a ball moves when it is thrown, the forces you feel on a roller-coaster, what happens when you turn on a light switch; and the esoteric: time and space from the perspective of Einstein's relativity, the basic structure of atoms and nuclei. The course is mostly at the conceptual level, with some simple algebraic problem solving. A unique feature of the class is a series of at-home experiments using simple materials to illustrate some basic ideas of physics.

LRES 591—Streamside Science: Hands-On Approaches to Water Quality Education
June 8-Aug. 9, 3 credits
Designed for 8-12 grade teachers
The primary goal of this course is to increase the water resource knowledge of students through hands-on, field-based curriculum. To accomplish this, students will be asked to adopt a local stream and perform lab assignments “in the field” to better understand hands-on water quality monitoring techniques. The course will improve the teaching skills of secondary science teachers utilizing distant delivery technologies. By completing this course, secondary science teachers will have a better understanding and hands-on working knowledge of the characterization and quantification of water quality as it relates to secondary school science curriculum and environmental issues on a global scale. Curriculum standards will be linked to
A time commitment of 10-14 hours per week is typical, but those who are less familiar with the course material or online course delivery may need to put in extra time, especially early in the semester.

**MATH 518—Statistics for Teachers**  
June 8–July 24, 3 credits  
Designed for 9-12 grade teachers

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.

**MB 540—Environmental Microbiology**  
June 8 – Aug. 14, 3 credits  
Designed for 6-12 grade teachers

Appreciating the complexity of the biosphere involves consideration of its microbial constituents. Environmental impacts and global climate change often show early evidence in its smallest inhabitants.

This course is designed for science educators, but will provide all interested participants with the fundamentals of environmental and applied microbiology. Information presented will enable individuals to expand their knowledge in these topics and challenge them to utilize microbes as indicators of environmental change.

This experience will be provided through: discussions; readings; web resources; quizzes; assignments; and in designing and implementing an ongoing hands-on research experiment. Participants will gain an appreciation of how microorganisms are involved in supporting the biosphere. They will also learn how knowledge of environmental microbiology can be applied in biotechnology and complex issues, such as microbial diversity in natural environments, pathogenesis, bioremediation, biological control, water purification and wastewater treatment. This course complements others such as general microbiology, infectious diseases, microbial genetics, and studies on biofilms.

Participants will have proxy access to the Montana State University library online.

**NUTR 524—Teaching Adolescent Nutrition**  
June 15-Aug. 7, 2 credits  
Designed for 6-12 grade teachers

Nutrition habits of children and teens are known to have an impact on their present and future health, their ability to learn and physical performance (athletics). However, many of these young people are not making the grade nutritionally. For example:

- The rate of obesity has doubled in the past decade
- Symptoms of adult diseases (diabetes, hypertension, heart disease) are showing up in younger children and teens
- During the important growth period of adolescence many teen diets lack the recommended amounts of key nutrients essential for optimal growth
- According to a recent study done by the U.S. Department of Agriculture, only one percent of children met all of the nutrition recommendations of the 2010 Dietary Guidelines for Americans.
- Eating disorders are on the rise, particularly in young men

Throughout this course teachers will investigate various content areas applicable to adolescent nutrition and discuss if and how a School Wellness Policy can influence these nutrition topics. Teachers will want to obtain a copy of their school’s or school district’s wellness policy if it has one. These content areas include:

- Current concerns and health statistics relative to adolescent nutrition
- Key nutrients of concern in adolescent diets
- Sports nutrition
- Dietary supplements
- Eating disorders and body image
- Using the MyPlate tool to create a daily meal plan
- The 2010 Dietary Guidelines for Americans
- Food safety
- The important role of the school environment in supporting sound nutrition

Selected classroom resources, which engage the student and provide for experiential learning, will be highlighted for all content areas. Course participants will be required to complete weekly reading assignments, take part in online discussion (asynchronous), submit two short assignments, and complete an independent course project: either 1) develop two nutrition lessons which make use of resources reviewed in class, or 2) develop a plan for implementing a major objective of the school wellness policy.

**PHSX 491—Conceptual Physics**  
June 1-July. 26, 3 credits  
Designed for 7-12 grade teachers

This course describes the workings of the world around us. The everyday: how a ball moves when it is thrown, the forces you feel on a roller-coaster, what happens when you turn on a light switch; and the esoteric: time and space from the perspective of Einstein’s relativity, the basic structure of atoms and nuclei. The course is mostly at the conceptual level, with some simple algebraic problem solving. A unique feature of the class is a series of at-home experiments using simple materials to illustrate some basic ideas of physics.

**PHSX 511—Astronomy for Teachers**  
June 1-Aug. 21, 3 credits  
Designed for 6-12 grade teachers

Astronomy has long been a subject that captures the imagination of young students and provides a framework for teaching many kinds of science. This course, specially designed for practicing science teachers at the middle and high school levels, serves as a survey of topics in astronomy, with special emphasis on the latest advances. The topics are closely aligned with the concepts emphasized in the NRC National Science Education Standards. Our textbook is a very complete, very up-to-date, very readable source that teachers will want to keep as a reference. Our instructional strategy focuses on readings from the textbook, exercises that clarify the concepts and collaborative internet group discussions that correct misunderstandings and deepen insights.
The goals of this course are to:

- Develop our own professional community of course participants, sharing teaching ideas, expertise and experience

PHSX 591—Electric Circuits and Magnetism
June 8-Aug. 3, 2 credits
Designed for 5-8 grade teachers

This two-credit course is designed for practicing teachers who are teaching basic electric circuits as part of the science curricula in their classrooms. Its broad purpose is to introduce experienced teachers to core concepts in electric circuits, as those ideas relate to modern hands-on, inquiry-oriented science curricular materials. By helping teachers improve their understanding of the underlying physics, this course will enable them to teach electric circuits more effectively.

The specific course goals are as follows:
- To deepen teachers’ understanding of basic physics principles underlying electric circuits
- To enhance teachers’ ability to convey concepts of electric circuits through inquiry approaches to learning
- To encourage the sharing of resources and pedagogical methods among course participants
- To strengthen teacher knowledge and confidence in teaching electric circuits, and to develop their ability to critically analyze and use commercially available resources
- To briefly introduce magnetism, differentiating electric charge and magnet poles and observing the connection between an electric current and a magnetic field

This course will be taught as an online, D2L-based course involving significant student-instructor and student-student interaction, student team participation in course homework assignments, and independent study. The time commitment will be approximately 11-12 hours per week for eight weeks. Course work will involve a mixture of online discussion, hands-on (lab-type) activities, readings from assigned and independently researched sources, and online quizzes.

Objectives - Students who successfully complete this course will be able to do the following:
1. Describe the current and projected world energy usage.
2. Describe the necessity of renewable energy sources.
3. Explain how energy is obtained from various renewable energy sources covered in the course.
4. Demonstrate mastery of underlying physics concepts utilized in renewable energy sources covered in the course.
5. Identify Next Generation Science Standards associated with topics in renewable energy.
6. Show the ability to incorporate the underlying physics of renewable energy sources into the teaching of introductory level physics.

PHSX 591—Physics of Renewable Energy for Teachers
June 1 – Aug. 21, 3 credits
Designed for 8-12 grade teachers

This course is intended to provide secondary physics teachers with a connection between topics in renewable energy sources to Next Generation Science Standards in physics. The goal of the course is to improve their pedagogical knowledge related to teaching the physics associated with renewable energy sources. Students will focus on developing classroom materials related to the subject.

During this online course, participants will complete a series of online units centered on bringing the physics of renewable energy sources into a high school physics classroom. Students will develop an understanding of the underlying physics associated with renewable energy sources. As this course is intended for classroom teachers, instruction will place an emphasis on creating classroom materials appropriate for secondary science classrooms and consistent with the Next Generation Science Standards. Energy sources covered include power derived from nuclear fusion/fission, wind, solar, geothermal, hydro, hydrogen, biomass and water waves. World energy consumption and energy storage will also be covered.

PHSX 513—Quantum Mechanics
May 26-Aug. 7, 3 credits
Designed for 9-12 grade teachers

Can quantum mechanics be made SIMPLE? What lies behind wave functions and Schrödinger’s wave equation? How is the microscopic world really put together? Can one explore the peculiar quantum world without resorting to complicated mathematical treatment? In his popular little book, *QED, The Strange Theory of Light and Matter*, Richard Feynman reduces the rules of quantum mechanics to a simple command for the electron and the photon: Explore all paths. In 1948 Feynman proved that this command leads to all the same results as the usual quantum wave mechanics.

Our course studies the command “Explore all paths” and its consequences. Using hands-on software, you experiment with the quantum world illustrated in Feynman’s book. You excise the rules of the quantum mechanics to explain real world observations. On the on-line forum, you discuss with other participants the deep paradoxes of quantum mechanics. But deep does not mean mathematical: NO EQUATIONS until one-third of the way through the course. Without needing equations, you watch the quantum wave function emerging as a natural consequence of the command “Explore all paths.”

PHSX 591—The World of Motion
June 8-July 19, 1 credit
Designed for 3-8 grade teachers

In this fast-moving six-week course, we will focus on the fascinating concepts of measurement and motion, and how they relate to hands-on physical science in the elementary classroom.

The goals of this course are to:

• Gain a thorough understanding of the concepts of velocity and acceleration, central to a description of motion
• Learn how to describe motion graphically and using data tables
• Study how children’s concepts of motion are developed in the classroom setting
• Become more effective users of inquiry-based curricular materials in teaching about motion
• Learn about supplementary materials that help connect motion concepts to Native American cultures and communities

This course will be taught as an online, D2L-based course involving significant student-instructor and student-student interaction, student team participation in course homework assignments, and independent study. The time commitment will be approximately 11-12 hours per week for eight weeks. Course work will involve a mixture of online discussion, hands-on (lab-type) activities, readings from assigned and independently researched sources, and online quizzes.
SCHOOL LIBRARY MEDIA CERTIFICATION PROGRAM

The online School Library Media Certification Program is housed in the Dept. of Education in the College of Education, Health & Human Development and is delivered through MSU Extended University.

If you are interested in acquiring certification to become a school library media specialist or taking recertification credits, 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.

Library Media Program website: www.montana.edu/libmedia/index.html

Summer 2015 Courses
Enroll through Extended University
Visit Library Media Program website: www.montana.edu/libmedia/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: libmedia@montana.edu
Location: 222 Reid Hall

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 2015 Courses
Enroll through Extended University
HDFP 520—Investing for the Family’s Future, 3 cr.
HDFP 525—Retirement Planning, Employee Benefits and the Family, 3 cr.
HDFP 540—Personal Income Taxation, 3 cr.
HDFP 545—Family Theory and Research, 3 cr.
HDFP 572—Case Studies, 3 cr.
HDFP 575—Professional Paper, 3 cr.
HDFP 576—Professional Practicum, 3 cr.

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

ADDITION COUNSELING CERTIFICATE PROGRAM

The Addiction Counseling Certificate 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 by MSU Extended University. You must be admitted into the program to take these courses. The admission deadline for Summer is April 15.

Summer 2015 Courses
Enroll through Extended University
LAC 505—Cross-Cultural and Ethical Considerations in Addictions Counseling, 3 cr.
LAC 507—Counseling Theories in Addiction Settings, 3 cr.

For more information, contact:
Sarah Hendrikx
Extended University
sarah.hendrikx@montana.edu
(406) 994-7441
or visit the website: http://eu.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 Dept. of Education and is offered in blended format by MSU Extended University.

Summer 2015 Courses
Enroll through Extended University
Courses to be announced.

For more information, contact:
Lisa Brown
Extended University
lisa.brown@montana.edu
(406) 994-3062

or visit the website: www.montana.edu/wwweduc/grad/edlead/

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://eu.montana.edu/online/degrees/native-american-studies/
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.

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 2015 are listed by core groups. For information regarding dates, times and location of offerings, refer to the Summer Class Schedule online (see access instructions, p. 26 of this bulletin). For course descriptions, go to 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.

**US—UNIVERSITY SEMINAR**

- AGED 140US  Leadership Development for Agriculture
- COM 110US  Introduction to Public Communication

**W—COLLEGE WRITING**

- WRIT 101W  College Writing I

**Q—QUANTITATIVE REASONING**

- M 121Q  College Algebra
- M 145Q  Mathematics for the Liberal Arts
- M 151Q  Precalculus
- M 161Q  Survey of Calculus
- M 171Q  Calculus I
- M 172Q  Calculus II

- M 273Q  Multivariable Calculus
- STAT 216Q  Introduction to Statistics
- STAT 217Q  Intermediate Statistical Concepts

**D—DIVERSITY**

- BGEN 242D  Introduction to International Business
- GPHY 141D  Geography of World Regions
- GRMN 102D  Elementary German II
- LIT 214D  Regional Literature
- LIT 285D  Mythologies
- NASX 105D  Introduction to Native American Studies
- NASX 232D  Montana Indian Cultures, Histories, Current Issues
- RLST 100D  Introduction to the Study of Religion
- RLST 203D  Buddhist Traditions

**CS—CONTemporary ISSUES IN SCIENCE**

- ECIV 220CS  Civil Engineering and Construction: From the Ancient to the Modern
- HSTR 205CS  World Environment
- NUTR 221CS  Basic Human Nutrition
- TE 250CS  Technology and Society

**IA—ARTS INQUIRY**

- SPNS 102D  Elementary Spanish II

**RA—ARTS RESEARCH**

- ARCH 121IA  Introduction to Design
- ARCH 151RA  Design Fundamentals I
- ARTH 201IA  Art of World Civilization II
- ARTZ 105RA  Visual Language Drawing
- ARTZ 106RA  Visual Language—2-D Foundations
### Core Courses Offered Online this Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 401R</td>
<td>Seminar in American Studies</td>
</tr>
<tr>
<td>ANTY 225IS</td>
<td>Culture, Language, and Society</td>
</tr>
<tr>
<td>ANTY 252IS</td>
<td>Mysteries of the Past</td>
</tr>
<tr>
<td>BGEN 242D</td>
<td>Introduction to International Business</td>
</tr>
<tr>
<td>CS 145RA</td>
<td>Web Design</td>
</tr>
<tr>
<td>ECIV 220CS</td>
<td>Civil Engineering and Construction: From the Ancient to the Modern</td>
</tr>
<tr>
<td>FCS 101IS</td>
<td>Individual &amp; Family Development and Well-Being: Lifespan</td>
</tr>
<tr>
<td>HSTA 102IH</td>
<td>American History II</td>
</tr>
<tr>
<td>HSTR 101IH</td>
<td>Western Civilization I</td>
</tr>
<tr>
<td>HSTR 205CS</td>
<td>World Environment</td>
</tr>
<tr>
<td>LIT 285D</td>
<td>Mythologies</td>
</tr>
<tr>
<td>M 121Q</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MART 145RA</td>
<td>Web Design</td>
</tr>
<tr>
<td>MUSI 101IA</td>
<td>Enjoyment of Music</td>
</tr>
<tr>
<td>MUSI 203IA</td>
<td>American Popular Music</td>
</tr>
<tr>
<td>MUSI 307IA</td>
<td>World Music</td>
</tr>
<tr>
<td>PHOT 113RA</td>
<td>Understanding Photography</td>
</tr>
<tr>
<td>THTR 122IA</td>
<td>Acting for Non-Majors</td>
</tr>
<tr>
<td>IH—HUMANITIES INQUIRY or RH—HUMANITIES RESEARCH</td>
<td></td>
</tr>
<tr>
<td>FILM 101IH</td>
<td>Understanding Film and Media</td>
</tr>
<tr>
<td>FILM 104IH</td>
<td>Modes of Screen Drama</td>
</tr>
<tr>
<td>HSTA 102IH</td>
<td>American History II</td>
</tr>
<tr>
<td>HSTR 101IH</td>
<td>Western Civilization I</td>
</tr>
<tr>
<td>PHL 101IH</td>
<td>Introduction to Philosophy: Reason and Reality</td>
</tr>
<tr>
<td>PHL 110IH</td>
<td>Introduction to Ethics: Good and Evil</td>
</tr>
<tr>
<td>SPNS 335IH</td>
<td>Travel in Latin American Literature and Film</td>
</tr>
<tr>
<td>IN—NATURAL SCIENCE INQUIRY or RN—NATURAL SCIENCE RESEARCH</td>
<td></td>
</tr>
<tr>
<td>ASTR 110IN</td>
<td>Introduction to Astronomy: Mysteries of the Sky</td>
</tr>
<tr>
<td>CHMY 121IN</td>
<td>Introduction to General Chemistry</td>
</tr>
<tr>
<td>ERTH 101IN</td>
<td>Earth System Science</td>
</tr>
</tbody>
</table>

For a complete listing of “R” core courses, refer to the Summer Schedule of Classes.
Summer Science and Mathematics Courses for Pre-Med

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 level work at MSU or other four-year institutions may take the science and mathematics courses traditionally required for application to medical and dental schools.

For more information, visit the program’s Web page at: www.montana.edu/dhs/hpa/postbaccadvising.html

Summer Session 2015 offers the following series of science and mathematics courses designed to meet the special academic needs of students who plan to apply to medical or dental school. 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. Another course available to pre-med students this summer is BIOH 201—Human Anatomy & Physiology I for 5 credits.

Chemistry
CHMY 141 – College Chemistry I, 4 cr.
CHMY 143 – College Chemistry II, 4 cr.
CHMY 321 – Organic Chemistry I, 4 cr.
CHMY 323 – Organic Chemistry II, 4 cr.

Physics
PHSX 205 – College Physics I, 4 cr.
PHSX 207 – College Physics II, 4 cr.

Mathematics
M 161 – Survey of Calculus, 4 cr.

Statistics
STAT 216 – Intro to Statistics, 3 cr.

Biology
BIOH 201 – Human Anatomy & Physiology I, 5 cr.

COURSE DATES & TIMES

First 6-Week Session, May 18-June 26:
CHMY 141 – College Chemistry I, 4 cr.
Lecture: MWF 10:00-11:05 a.m.
T 10:00 a.m.-12:20 p.m.
Lab: MW 12:30-4:05 p.m.

CHMY 321 – Organic Chemistry I, 4 cr.
Lecture: MTRF 10:00-11:05 a.m.
W 10:00 a.m.-12:20 p.m.
Lab: M 12:00-3:35 p.m.
(select one) W 1:00-4:35 p.m.
or TR 12:00-3:35 p.m.

PHSX 205 – College Physics I, 4 cr.
Lecture: MTWR 8:45-9:50 a.m.
W 7:30-8:35 a.m.
Lab: TR 10:00 a.m.-11:50 a.m.
or TR 12:00-1:50 p.m.
or TR 2:00-3:50 p.m.
or TR 4:00-5:50 p.m.

CHMY 143 – College Chemistry II, 4 cr.
Lecture: MWF 10:00-11:05 a.m.
T 10:00 a.m.-12:20 p.m.
Lab: MW 12:30-4:05 p.m.

CHMY 323 – Organic Chemistry II, 4 cr.
Lecture: MTRF 10:00-11:05 a.m.
W 10:00 a.m.-12:20 p.m.
Lab: M 12:00-3:35 p.m.
W 1:00-4:35 p.m.

PHSX 207 – College Physics II, 4 cr.
Lecture: MTWR 8:45-9:50 a.m.
W 7:30-8:35 a.m.
Lab: TR 10:00 a.m.-11:50 a.m.
or TR 12:00-1:50 p.m.
or TR 2:00-3:50 p.m.

M 161 – Survey of Calculus, 4 cr.
Lecture: MTWR 7:30-8:35 a.m.
or MTWR 8:45-9:50 a.m.

STAT 216 – Intro to Statistics, 3 cr.
Lecture: MTR 7:30-8:35 a.m.
or MTR 8:45-9:50 a.m.

Second 6-Week Session, June 29-August 7:
CHMY 143 – College Chemistry II, 4 cr.
Lecture: MWF 10:00-11:05 a.m.
Lab: MW 12:30-4:05 p.m.

CHMY 323 – Organic Chemistry II, 4 cr.
Lecture: MTRF 10:00-11:05 a.m.
W 10:00 a.m.-12:20 p.m.
Lab: M 12:00-3:35 p.m.
W 1:00-4:35 p.m.

PHSX 207 – College Physics II, 4 cr.
Lecture: MTWR 8:45-9:50 a.m.
W 7:30-8:35 a.m.
Lab: TR 10:00 a.m.-11:50 a.m.
or TR 12:00-1:50 p.m.
or TR 2:00-3:50 p.m.

M 161 – Survey of Calculus, 4 cr.
Lecture: MTWR 7:30-8:35 a.m.
or MTWR 8:45-9:50 a.m.

STAT 216 – Intro to Statistics, 3 cr.
Lecture: MTR 7:30-8:35 a.m.
or MTR 8:45-9:50 a.m.
or MTR 10:00 a.m.-11:50 a.m.
or MTR 11:15 a.m.-12:20 p.m.

Full 12 Week Session, May 18-August 7
BIOH 201 – Human Anatomy & Physiology I, 5 cr.
Lecture: MTWR 1:10-2:30 p.m.
Lab: MTWR 8:00-9:50 a.m.
or MTWR 10:00-11:50 a.m.

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

COURSE DESCRIPTIONS

CHMY 141 – College Chemistry I, 4 cr.
Prerequisite: Successful completion of M 121Q – College Algebra, or placement in a math level 4 course (Survey of Calculus or Precalculus)
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.

CHMY 143 – College Chemistry II, 4 cr.
Prerequisite: CHMY 141 or CHMY 151
The second semester of the two-semester general chemistry sequence.

CHMY 321 – Organic Chemistry I, 4 cr.
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.

CHMY 323 – Organic Chemistry II, 4 cr.
Prerequisite: CHMY 321
The second semester of the two-semester professional sequence in organic chemistry.
PHSX 205 – College Physics I, 4 cr.
Prerequisite: High school trigonometry or M 151
This course is algebra-based.
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.

PHSX 207 – College Physics II, 4 cr.
Prerequisite: PHSX 205 or PHSX 220
This course is algebra-based.
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.

M 161 – Survey of Calculus, 4 cr.
Prerequisite: M 121 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.

STAT 216 – Intro to Statistics, 3 cr.
Prerequisite: C- or better in any 100 level or above M course, or Math Placement Test within the past 12 months
Traditional and robust estimates of location and variability, fundamentals of probability theory, confidence intervals, and tests of hypothesis for normal distributions.

BIOH 201 – Human Anatomy & Physiology I, 5 cr.
Prerequisites: CHMY 121, 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.

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 OR
• Complete a paper application (available from the MSU Admissions Office: (406) 994-2452 or 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 (see p. 7 of this bulletin for more information)

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)
• Submit completed form to the Graduate School along with: 1) $60.00 fee and 2) 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 (see p. 7 of this bulletin for more information)

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 www.montana.edu/dhs/hpa/postbac-cadvising.html.

Continuing & Former Students
Continuing students are those who attended MSU Spring Semester 2015. Former students are those who previously attended MSU but were not enrolled Spring Semester 2015.

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 www.montana.edu/dhs/hpa/postbac-cadvising.html.
COURSE REGISTRATION

New Students
Undergraduates
Contact the Academic Advising Center at (406) 994-3532 to discuss advising and registration for summer courses. See p. 4 for further details.

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) 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 is available on p. 13.

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 (see Fee Payment instructions, p.14).

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.

HOUSING & MEALS
Please refer to the Summer Housing and Meals section starting on p. 17.
Special Summer Courses

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 2015, 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; through Extended University; or through 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 (see access instructions on p. 26); information regarding registration is on p. 4-5 of this bulletin. For a listing of Extended University offerings and information on how to register, see the Extended University section starting on p. 59 or visit the Extended University website at http://eu.montana.edu/ContinuingEd.

ACCOUNTING

ACTG 524-01
International Accounting
(Enroll through Registrar)
June 8-26, 3 credits
Prerequisites: ACTG 328 and admission to MPAC Program
Instructor: Marc Giullian

This course introduces students 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.

ANIMAL AND RANGE SCIENCES

ARNR 529-801
Yellowstone Wildlife Habitat Ecology
(cross-listed with WILD 429)
(Enroll through Extended University)
June 16-August 7, 2 credits
Prerequisites: WILD 426, 428, or equivalent
Instructor: Carl Wambolt

This course considers the native communities of the Northern Yellowstone Winter Range as wildlife habitat, explores ecosystem interrelationships, and interprets the consequences of past management. Topics include plant taxonomy and geography; ecology of plants and wildlife; ungulate foraging relationships; habitat types and their successional trends and value to wildlife; fire ecology; and Park policy evolution. Two one-day field trips (returning to Bozeman each evening) provide field experiences on all of the above topics.

BIOLOGY – ECOLOGICAL

BIOE 416-01
Alpine Ecology
(Enroll through Registrar)
June 29-August 7 (required field trip July 24-26), 3 credits
Prerequisites: Junior standing, BIOB 170
Instructor: Carol Johnson

Explore the ecological characteristics of alpine areas. A three-day field trip will confirm and reinforce material presented in class and is a course requirement.

BIOE 420-01
Field Ornithology
(Enroll through Registrar)
May 18-June 26 (required field trip May 30), 3 credits
Prerequisites: Junior standing, and either BIOB 100 or BIOB 170
Instructor: Robert Moore

Field identification, habitat affinities and life histories of birds of the northern Rockies. Includes early morning field trips. The class will go outside in all kinds of weather, so students should be prepared with warm/dry outdoor clothing and footwear. Pair of binoculars required.

ART – ART HISTORY

ARTH 310-01
Art and Architecture of Ancient Mesoamerica
(Enroll through School of Art, 994-4501)
June 29-August 7, 3 credits
Instructor: Regina Gee

This course is 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.

ACTIVITIES – GENERAL

Try an activity course this summer and earn academic credit for it! All courses will run 6 weeks, from May 18-June 26 or June 29-August 7, and are worth 1 credit each.

Enroll through the Registrar for all courses.

ACT 110-01 – Beginning Weight Training
ACT 150-01 – Beginning Yoga
ACT 169-01 – Beginning Tennis

For more information, contact Abbey Keene, Recreational Sports and Fitness, 994-6278 or abby.keene@montana.edu.
BIOE 421-01
Yellowstone Wildlife Ecology
(Enroll through Registrar)
May 18-June 26 (required field trip, date TBA), 3 credits
Prerequisites: Junior standing, and either BIOB 100 or BIOB 170
Instructor: Harold Picton

Basic ecology of the major animal species of the Yellowstone area, covering life, fire, ice, and land. The course will examine the ecological controversies surrounding Yellowstone wildlife management, and explore the role of the area as a “game changer” in affecting many things.

COACHING

COA 395-01
Practicum: Coaching Application
(Enroll through Registrar)
May 18-Aug. 7, 1 credit
Prerequisite: COA 205
Instructor: Craig Stewart

This course will involve assignment of prospective coaches to specific sports. Also included will be discussion and feedback on planning and implementation in practical settings.

COA 405-01
Advanced Concepts in Coaching
(Enroll through Registrar)
May 18-Aug. 7, 3 credits
Prerequisites: COA 205; and COA 395 or coaching experience
Instructor: Craig Stewart
Delivery mode: Online only

The primary goal of this course is to implement the content of an advanced coach certification curriculum in cooperation with the Montana High School Association (MHSA). The class is intended for experienced coaches who wish to examine current issues in coaching such as the female athlete, sportsmanship, or coach/parent relationships in detail.

EDUCATION

EDCI 588-801
Project Archaeology: Educator Field School
(Enroll through Extended University)
Aug. 3-7, 2 credits
Instructor: Crystal Alegria
Location: Virginia City, MT

Join Project Archaeology in historic Virginia City and learn how to bring archaeology and history into your classroom! You will receive the research-based curriculum guide Project Archaeology: Investigating Shelter which addresses the goals of the Montana Common Core. This guide will help you take learning to a deeper level by incorporating English language arts, social studies and science. The guide is inquiry-based, cross-curricular, includes performance-based assessments, incorporates the indigenous voice, and promotes cultural understanding. In the classroom, your students will learn to analyze artifacts, primary documents, and oral histories related to authentic archaeological sites using the basics of scientific inquiry (observation, inference, evidence and classification), providing them with college and career readiness skills. Join us as we travel back in time to learn about Montana’s historic past!

EDCI 591
Project Archaeology: Investigating a Plains Tipi
(Enroll through Extended University)
June 15-August 7, 2 credits
Instructor: Crystal Alegria
Location: Museum of the Rockies, Bozeman

Join Project Archaeology at the Museum of the Rockies and learn how to bring archaeology and history into your classroom! You will receive the research-based curriculum guide Project Archaeology: Investigating Shelter which addresses the goals of the Montana Common Core. This guide will help you take learning to a deeper level by incorporating English language arts, social studies and science. The guide is inquiry-based, cross-curricular, includes performance-based assessments, incorporates the indigenous voice, and promotes cultural understanding. In the classroom, your students will learn to analyze artifacts, primary documents, and oral histories related to authentic archaeological sites using the basics of scientific inquiry (observation, inference, evidence and classification), providing them with college and career readiness skills. Join us as we travel back in time to learn about Montana’s historic past!
### SPECIAL SUMMER COURSES

#### GENERAL ENGINEERING COURSES

**Take them on campus or online!**

Each of the following General Engineering courses will be offered this summer with both an on-campus section and an online* section. Enroll through the Registrar for all sections.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Section</th>
<th>Credits</th>
<th>Dates</th>
<th>Prerequisites</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGEN 201</td>
<td>Engineering Mechanics: Statics</td>
<td>Section 01 – On campus; Section 02 – Online</td>
<td>3</td>
<td>May 18-June 26</td>
<td>PHSX 220 or 240; co-requisite: M 273 or 283</td>
<td>Anders Larsson</td>
</tr>
<tr>
<td>EGEN 202</td>
<td>Engineering Mechanics: Dynamics</td>
<td>Section 01 – On campus; Section 02 – Online</td>
<td>3</td>
<td>May 18-June 26</td>
<td>EGEN 201 or 221</td>
<td>Mike Edens</td>
</tr>
<tr>
<td>EGEN 205</td>
<td>Mechanics of Materials</td>
<td>Section 01 – On campus; Section 02 – Online</td>
<td>3</td>
<td>June 29-Aug. 7</td>
<td>EGEN 201 or 221</td>
<td>Bob Mokwa</td>
</tr>
</tbody>
</table>

#### FILM

**FILM 381-01**  
*Studies in Film: Italian Cinema*  
(Enroll through Registrar)  
June 18-26, 3 credits  
Prerequisite: Any 200-level film studies course or permission of instructor  
Instructor: Robert Arnold

An advanced introduction to the theories which enable an understanding of the national cinemas practiced in light of, outside of, the influence of Hollywood. Focus on particular national cinemas varies by semester, but may include examinations of major European cinemas, Asian cinema, and/or the cinemas of the developing world.

**FILM 481-01**  
*Advanced Studies in Film: Quentin Tarantino and the Cinema of Cool*  
(Enroll through Registrar)  
June 29-August 7, 3 credits  
Prerequisite: Any 300-level film studies course or permission of instructor  
Instructor: Lucia Ricciardelli

In the 1980s to 1990s, cinema lovers used to have a favorite video store employee to interact with during rentals, a “film geek” usually overqualified to be there: Quentin Tarantino was exactly that type of video store employee. Before becoming an extremely successful filmmaker, Tarantino worked at the Manhattan Beach’s Video Archives in Los Angeles for five years, devouring countless movies and discussing them endlessly with his customers. In 1992, Tarantino’s first film, Reservoir Dogs, screened at the Sundance Film Festival and was an immediate hit; the rest is history. Fascinated with pop culture icons and images of “coolness,” Tarantino is attributed with developing one of the most exciting and original styles of contemporary filmmaking. This course focuses on how his filmmaking work has helped define the art of cinema at the turn of the 21st century. Tarantino’s films will be analyzed in terms of theme, structure and cinematic technique. Special attention will be given to Tarantino’s adoption of the “cool gaze” as a way of shocking and undermining both social and mainstream filmic conventions.

**FILM 494-01**  
*Seminar: Film and Photoboarding*  
(Enroll through Registrar)  
May 18-June 29, 3 credits  
Prerequisite: FILM 112 or by permission of instructor  
Instructor: James Joyce

Film and Photoboarding builds visual storytelling skills with motion and still photography. Students will transform screenplays/contexts into storyboards, shoot the storyboards with DSLRs, and ultimately film with HD video cameras.

#### FISH AND WILDLIFE SCIENCE AND MANAGEMENT

**WILD 429-801**  
*Yellowstone Wildlife Habitat Ecology*  
(cross-listed with ARNR 529)  
(Enroll through Extended University)  
June 8-June 13, 2 credits  
Prerequisites: WILD 426, 428, or equivalent  
Instructor: Carl Wambolt

This course considers the native communities of the Northern Yellowstone Winter Range as wildlife habitat, explores ecosystem interrelationships, and interprets the consequences of past management. Topics include plant taxonomy and geography; ecology of...
plants and wildlife; ungulate foraging relationships; habitat types and their successional trends and value to wildlife; fire ecology; and Park policy evolution. Two one-day field trips (returning to Bozeman each evening) provide field experiences on all of the above topics.

**GEOLOGY**

**GEO 429-01 Field Geology**  
(Enroll through Registrar)  
May 18-June 26, 6 credits  
Prerequisites: ERTH 307, GEO 211, GEO 309, GEO 315, GEO 448 (must receive a minimum grade of “C” in these areas)  
Instructor: Colin Shaw

A senior capstone course for the geology, geohydrology and paleontology options. Early 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. For more information, visit the course’s website at [http://www.montana.edu/wwwes/programs/geologycamp.htm](http://www.montana.edu/wwwes/programs/geologycamp.htm).

**GERMANY**

**GRMN 101-01 Elementary German I**  
(Enroll through Registrar)  
May 18-June 26, 3 credits  
Instructor: Patricia Simpson

This elementary level course is designed to help students acquire basic proficiency in communication within culturally significant contexts. An integrated approach will be taken to teaching language skills with emphasis on vocabulary acquisition and basic grammatical structures.

**GRMN 102D-01 Elementary German II**  
(Enroll through Registrar)  
June 29-Aug. 7, 3 credits  
Prerequisite: GRMN 101 or equivalent, or two years of high school German  
Instructor: Susanne Pannwitz

This course builds upon the foundation established in GRMN 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.

**GRAPHIC DESIGN**

**GDSN 360-01 Yellowstone Digital**  
(Enroll through School of Art, 994-4501)  
June 18-August 7, 3 credits  
Prerequisite: One of the following: GDSN 224, ARTZ 211, MTA 260, or ARCH 261  
Instructor: TBA

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 who desire to explore the new media of the fine art digital print.

**GDSN 361-01 Teton Digital**  
(Enroll through School of Art, 994-4501)  
Dates May 18- August 7, 3 credits  
Prerequisite: One of the following: GDSN 224, ARTZ 211, MTA 260, or ARCH 261  
Instructor: TBA

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 who desire to explore the new media of the digital print.

**GSDN 378-01 Guerrilla Advertising**  
(Enroll through School of Art, 994-4501)  
Dates May 18- August 7, 5 credits  
Prerequisite: GDSN 224 or consent of instructor; photography and marketing majors highly encouraged  
Instructor: Meta Newhouse

Students will stretch the boundaries of traditional advertising solutions in this course 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 and photography, and marketing majors are particularly encouraged to apply.

**HORTICULTURE AND LANDSCAPE DESIGN**

**HORT 345-01 Organic Market Gardening**  
Please see box on p. 55.

**MEDIA ARTS**

**MART 145RA-01 Web Design**  
(cross-listed with CS 145RA)  
(Enroll through Registrar)  
June 29-Aug. 7, 3 credits  
Instructor: Hunter Lloyd  
Delivery mode: Online

Students will learn how to construct web pages that are well-designed and technically correct. On the design side, students learn about relevant design principles that apply to the design of web pages. On the technical side, students learn to implement their designs using HTML, Hypertext Markup Language, and CSS (Cascading Style Sheets). By the end of the course, students will have designed and built a small website.

*Note:* The lecture material for the summer offering is online. The laboratory may be done either in a supervised setting (Tuesdays and Thursdays, 1:00-3:00 p.m. in EPS 254) or online.
SPECIAL SUMMER COURSES

MUSIC – EDUCATION
MUSE 591-850
Effective Teaching Strategies for Instrumental Music Education
(Enroll through Extended University)
May 18-August 7, 2 credits
Instructor: Sherry Linnerooth
Location: Camp Paxson, Seeley Lake, MT

This intensive session is an outstanding professional development opportunity for instrumental music teachers. It will allow total student/teacher immersion with experts and colleagues in the areas of music teaching and performance. Topics will include beginning and rebuilding a band program, standard and new repertoire for all band levels, a special session on trumpet pedagogy, beginning drum set, teaching chamber music, and a session on Smart Music. Multiple sessions will be given to work on band rehearsal warm-ups, technique, and conducting, and class participants will have the opportunity to read new and standard concert band literature.

MUSIC – GENERAL
MUSI 348-02
Bozeman Community Concert Band
(Enroll through Registrar)
May-August (contact School of Music for specific dates, 994-3562), 1 credit
Instructor: Nathan Stark

Beginning mid-May and continuing 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.

PHILOSOPHY
PHL 327-01
Aesthetics and the Arts
(Enroll through the Registrar)
June 29-Aug. 7, 3 credits
Prerequisite: Previous course in Philosophy or consent of instructor
Instructor: Daniel Flory

This course involves the philosophical examination of the nature and function of the arts and the aesthetic experience.

PHOTOGRAphy
PHOT 494-01
Seminar: Small Town Documentary
(Enroll through the Registrar)
May 18-August 7, 3 credits
Prerequisites: PHOT 113, PHOT 154, or comparable photography course
Instructor: Jonathan Long

The goal of this course is to engage in a visual examination of a specific town, to be chosen and documented by each individual student extensively. The course offers a rich blend of geography, sociology, history, contemporary issues, education, art and individual curiosity.

POLITICAL SCIENCE
PSCI 439-01
International Human Rights
(Enroll through Registrar)
May 18-June 26, 3 credits
Prerequisites: PSCI 230 and a minimum of Junior standing
Instructor: Franke Wilmer

The development of human rights in legal and political context of the post-World War II period. Topics include civil and political rights of due process; political participation and fundamental democratic freedoms; and social, cultural, and economic rights including basic human needs, self-determination, gender equality, and cultural integrity. National and international implementation is also considered.

PSCI 454-01
Cinema and Political Theory
(Enroll through Registrar)
May 18-June 26, 3 cr.
Prerequisites: PSCI 200, PSCI 210, PSCI 214, and PSCI 230, or consent of instructor
Instructor: Eric Austin

This course explores the intersection of political theory with topics such as civil society, bureaucracy, and public policy through the use of film. Special attention is given to both descriptive and prescriptive applications of modern and contemporary political theory to these topics.

PSYCHOLOGY
PSYX 263CS-01
The Psychology of Film
(Enroll through Registrar)
May 18-June 26, 3 credits
Prerequisites: College Writing (W) and University Seminar (US) core
Instructor: Ian Handley

This course uses psychological science to understand the persuasive power of media as portrayed in popular films. It evaluates the media’s ability to both reflect and affect behavior. The focus is on contemporary themes such as aggression, drug use, sexuality, and prejudice.

PSYX 340-01
Abnormal Psychology
(Enroll through Registrar)
May 18-June 26, 3 credits
Prerequisite: PSYX 100
Instructor: TBA

Historical and current perspectives on psychopathology, including neuroscience, behavioral cognitive, psychodynamic, and humanistic/existential approaches. Traditional approaches and recent innovations in therapy and diagnosis are considered along with current diagnostic categories, especially DSM.
PSYX 462-01  
Psychology of Prejudice  
(Enroll through Registrar)  
May 18-June 26, 3 credits  
Prerequisite: PSYX 100 or consent of instructor  
Instructor: Keith Hutchison  
This course 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.

SOCIOLOGY  
SOCI 332-01  
Sociology of Family  
(Enroll through the Registrar)  
May 18-June 26, 3 credits  
Prerequisites: SOCI 101IS or equivalent; Quantitative core; or consent of instructor  
Instructor: Danielle Hidalgo  
This course will examine the family as a structural and functional unit in social life and organization, and as a unit of social control; its status, change, and associated problems.

SPANISH  
SPNS 101-01  
Elementary Spanish I  
(Contact Modern Languages, 994-4448)  
May 18-June 26, 4 credits  
Prerequisite: Consent of instructor  
Instructor: TBA  
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.

SPNS 102D-01  
Elementary Spanish II  
(Contact Modern Languages, 994-4448)  
June 29-Aug. 7, 4 credits  
Prerequisite: SPNS 101 or equivalent, or two years of high school Spanish; consent of instructor  
Instructor: TBA  
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.

SPNS 335IH-01  
Travel in Latin America Literature and Film  
(Enroll through Registrar)  
May 18-June 26, 3 credits  
Location: On campus  
Prerequisite: SPNS 220 or Junior standing  
Instructor: Patricia Catoira  
This course examines travel in Latin America texts and films as exploration and search for individual and national identity. It also considers disruptive displacements caused by political and economic forces and the problems of adapting to a new environment. The course will be taught in English.

SUSTAINABLE FOOD AND BIOENERGY SYSTEMS  
SFBS 296-01  
Practicum: Towne’s Harvest  
SFBS 445R-01  
Culinary Marketing: Farm to Table  
SFBS 541-01  
Culinary Marketing: Farm to Table  
Please see box on p. 54.

THEATRE  
THTR 122IA-01  
Acting for Non-Majors  
(Enroll through Registrar)  
May 18-June 26, 3 credits  
Instructor: Stephanie Campbell  
An introduction to the creative process engaged by a performer on a stage. Taught in a workshop format in which the individual student engages in exercises designed to convey stories and emotions through the understanding of human behavior as expressed on a stage.
**SUSTAINABLE FOOD AND BIOENERGY SYSTEMS COURSES**

**HORT 345-01**  
Organic Market Gardening  
(Enroll through Registrar)  
May 18-June 26, 3 credits  
Prerequisites: BIOB 110, ENSC 245, and Junior standing  
Instructor: David Baumbauer  
(baumbauer@montana.edu)

The course emphasizes high value crops (vegetables, flowers, and herbs) produced with organic techniques and directly marketed through farmers’ markets, Community Supported Agriculture (CSA), restaurants, and specialty markets. This hands-on course is held at the MSU Horticulture Farm located on the Bozeman Area Research and Teaching Farm, where students will design and install 2½ acres of gardens and cold frames. Topics include soil fertility, seeding techniques, crop rotation, National Organic Standards, tool selection and maintenance, and irrigation systems. Field trips to area farms expose students to the local market gardening scene. Student groups will deliver presentations on such topics as variety selection, crop marketing opportunities, pest management, and cover crops.

**SFBS 296-01/02**  
Practicum: Towne’s Harvest  
(Enroll through Registrar)  
May 18-Aug. 7, 3 credits  
Prerequisites: SFBS 146 or consent of instructor  
Instructor: TBA  
This course provides an essential hands-on experience at Towne’s Harvest Garden. Students will practice all aspects of a community supported agriculture experience from production through distribution and marketing. Production activities include planting, transplanting, weeding, integrated pest management (IPM), irrigating, managing soil fertility, and harvesting. Distribution activities include sorting, washing, weighing and recording data, cold storing, and preparing produce for transport to various distribution sites such as the Gallatin Valley Food Bank. Marketing activities include displaying and selling produce at local farmers’ markets and on campus, recording sales and accounting data, displaying produce for community supported agriculture distribution, assisting members with produce identification and selection, and conducting outreach on and off the farm. Students will work side by side with the Towne’s Harvest production and operations managers to learn both the art and science of small scale sustainable production and distribution methods. Additional formal trainings will include safe food handling and market procedures. Students will attend one field trip to visit other farms in Montana.

**SFBS 445R-01**  
Culinary Marketing: Farm to Table  
(co-convened with SFBS 541)  
(Enroll through Registrar)  
June 29-Aug. 7, 3 credits  
Prerequisites: HDFN 226, HDFN 227, HDFN 322, HDFN 323, or equivalent; and graduate standing  
Instructor: Carmen Byker  
(carmen.byker@montana.edu)

This course 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.
Summer Master’s Degree Programs

MATHEMATICS EDUCATION

The Master of Science Degree in Mathematics under the Mathematics Education Option is designed for practicing high school mathematics teachers. The degree consists of 30 semester hours of course work.

Designed specifically to meet the needs of secondary mathematics teachers, the core courses and electives are drawn from common core content including mathematical modeling, statistics, algebra, geometry, analysis and discrete mathematics, as well as pedagogy courses focusing on technology, standards, curriculum and assessment. The program of study emphasizes inquiry-based learning and use of technology in the context of the Common Core State Standards for mathematics. Classroom research projects give teachers the opportunity to try new ideas for improving mathematics teaching and learning in their schools.

Courses are offered on the Bozeman campus each summer. Additionally, two Internet-based courses are offered each summer, fall, and spring.

All course credits may be applied toward teacher recertification.

Summer Session 2015, which begins May 18 and ends August 7 for Mathematics Education, will include the following courses:

On-Campus Courses

May 18-August 7
Enroll through the Office of the Registrar:

M 524—Algebra for Teachers
3 credits

June 16-August 7, 2015
Enroll through the Office of the Registrar:

M 517—Mathematical Modeling for Teachers
3 credits

Distance Delivery Courses

June 16-August 7
Enroll through the Office of the Registrar:

M 520—Standards-Based Mathematics
3 credits

For more information on the Master of Science in Mathematics – Mathematics Education option consult the Web page www.math.montana.edu/MSMME

or contact:

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

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 inter-disciplinary 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 2015 will include the following courses:

On-Campus Courses

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

June 15-19

CSCI 591—Computer Science in the Classroom: Introduction to Computational Thinking
2 credits

ECIV 591 – Science of Cold
2 credits

June 22-26

BIOL 520—Understanding and Managing Animal Biodiversity in the Greater Yellowstone Ecosystem
2 credits

PHSX 401—Physics by Inquiry (1st wk of 2wks)
3 credits

PSPP 548—Flowering Plants of the Northern Rocky Mountains
2 credits

June 22-27

GEO 521—Dinosaur Paleontology I
2 credits

June 27

ERTH 594—Field Geology: Geology of Mars
1 credit
June 29- July 3

**CHMY 591—Chemistry of the Environment: Water, Air, Earth**  
3 credits

**ERTH 516—Northern Rocky Mountain Geology**  
2 credits

**LRES 557—Thermal Biology in Yellowstone National Park**  
2 credits

**PHSX 401—Physics by Inquiry**  
(2nd week of 2 wks)

**PSPP 591—Plants, People, and Health**  
2 credits

---

**July 6-10**

**EDCI 575—MSSE Capstone Project and Symposium in Science Education**  
3 credits (Summer 2015 graduate candidates only)

**BIOE 591—Land Use Issues in the Greater Yellowstone Ecosystem**  
2 credits

**CHMY 594—Science Lab Safety and Risk Management**  
1 credit

**LRES 569—Ecology of Invasive Plants**  
2 credits

---

**July 12-16**

**GEO 522—Dinosaur Paleontology II**  
2 credits

---

**July 13-17**

**BIOE 522—Birds of Prey of the Greater Yellowstone Ecosystem**  
2 credits

**ELEE 591—Solar Cell Basics for Science Teachers**  
2 credits

**PHSX 403—Physics by Inquiry III**  
(1st wk of 2 wks)  
3 credits

---

**July 20-24**

**BIOL 591—Alpine Ecology**  
2 credits

**LRES 591—Lake Ecology**  
2 credits

**PHSX 403—Physics by Inquiry III**  
(2nd week of 2 weeks)

---

**July 27-31**

**ERTH 591—Geology of Glacier National Park**  
2 credits

**PHSX 591—Teaching Electricity and Magnetism**  
2 credits

---

Distance Delivery Courses

Enroll through Extended University, Office of Continuing Education (see Extended University section, p. 59). For more information and registration details, visit the MSSE website at www.montana.edu/msse or call (406) 994-5679.

---

**June 15-July 31**

*Note: Individual course lengths may vary. Exact dates will be included when the course descriptions are posted online.*

**BIOE 513—Terrestrial Ecology of Plains and Prairies**  
1 credit

**BIOE 519—Biology of Riparian Zones and Wetlands**  
2 credits

**BIOE 591—Anatomy and Physiology**  
3 credits

**CHMY 591—Exploring Chemistry for Teachers**  
3 credits

**CHMY 591—Exploring BioChemistry for Teachers II**  
3 credits

---

CHMY 591—Chemistry of the Environment: Water, Air, Earth  
3 credits

EDCI 537 Contemporary Issues in Science Education  
2 credits

MB 541—Microbial Genetics  
3 credits

MSSE 501—Inquiry Through Science and Engineering Practices  
2 credits

MSSE 591—Capstone Data Analysis  
2 credits

MSSE 591—Web Tools for Science Teachers  
3 credits

---

For more information on the Master of Science in Science Education (MSSE) Program visit our website at www.montana.edu/msse

*or contact:*

Diana Paterson  
MSSE Associate Director  
401 Linfield Hall  
P.O. Box 172805  
Montana State University  
Bozeman, MT 59717-2805

(406) 994-5679  
dianap@montana.edu
Get a Head Start

OPPORTUNITIES FOR RECENT HIGH SCHOOL GRADUATES

Summer Session 2015 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 2014!

For More Information
Admission to MSU
See p. 6 of this bulletin

Core courses offered during Summer 2015
See p. 43-44 of this bulletin

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.

EARLY ADMISSION FOR CURRENT HIGH SCHOOL STUDENTS

Summer Session 2015 provides an opportunity for current high school students to experience the college atmosphere and the level of course work 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 (congruent 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:
1. Demonstrate ability to do university-level work in at least one academic area
2. Demonstrate a strong likelihood of success at university-level work in that area
3. Meet the course requirements for Early Admission set by the departments offering the courses to be attended
4. 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 may be submitted online or printed out at: www.montana.edu/wwwcat/appoints.html. The application may also be obtained from a high school counselor or from the Office of Admissions.
2. Application Fee (nonrefundable):

$36 online application or $30 paper application fee. Checks should be made payable to Montana State University. The application fee will not be waived, deferred, or refunded. This fee must be paid before the application for admission will be processed.

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 and/or test scores listed below.

4. ACT/SAT scores: An ACT score of a 27 or an SAT score of an 1820. Official ACT/SAT scores should be sent directly to the Office of Admissions from the ACT/SAT testing agency.

5. Coursework: Must have completed the majority of the College Preparatory coursework outlined under Freshmen Admission Requirements (go to www.montana.edu/admissions/apply.shtml/#freshman for guidelines).

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 apparently 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 or email broeder@montana.edu).

For More Information
Core courses offered during Summer 2015
See p. 43-44 of this bulletin

General questions about Summer Session
Contact the Office of Summer Session.
Extended University Courses

INTRODUCTION

Summer Offerings
Extended University, Office of Continuing Education offers both credit and non-credit programs on campus, throughout the state and via distance learning. Courses will be held on the Bozeman campus unless otherwise indicated. Visit our Web site at http://eu.montana.edu/courses to obtain updated information regarding additional offerings.

Registration
Registration methods vary from course to course. Register for select courses online or via phone. Check course descriptions at http://eu.montana.edu/ContinuingEd for more information.

Extended University courses are open to both MSU and non-MSU students.

Course Fees and Policies
Course fees vary; check the Web site regarding fees for specific courses.

If the minimum enrollment for a course is not met and it is cancelled, fees paid will be refunded in full. If a course is offered as planned, administrative fees will be charged to students who choose to drop the course. For complete information concerning refunds, audits, drops or other administrative policies for credit courses, visit http://eu.montana.edu/credit/policy.htm For information regarding non-credit course policies, see http://eu.montana.edu/noncredit/policy.htm

Students may be able to count certain courses toward financial aid enrollment; for more information contact your program adviser or Financial Aid Services. Extended University courses may qualify for staff, veteran or other University fee waivers.

For More Information
Visit our Web site at: http://eu.montana.edu or contact:
Extended University Office of Continuing Education
200 Culbertson Hall
P.O. Box 172200
Montana State University
Bozeman, MT 59717-2200
(406) 994-6683
ContinuingEd@montana.edu
http://eu.montana.edu/ContinuingEd

Note: This is a sampling of courses available at press time. Please see http://eu.montana.edu/courses for all Extended University course descriptions.

ANIMAL AND RANGE SCIENCES

WILD 429/ARNR 529
Yellowstone Wildlife Habitat
(Co-convening course)
June 8-13, 2 credits
Location: Bozeman
Instructor: Carl Wambolt
This course considers the native communities of the Northern Yellowstone Winter Range as wildlife habitat, explores ecosystem interrelationships, and interprets the consequences of past management. Topics include plant taxonomy and geography; ecology of plants and wildlife; ungulate foraging relationships; habitat types and their successional trends and value to wildlife; fire ecology; and Park policy evolution. Two one-day field trips (returning to Bozeman each evening) provide field experiences on all of the above topics.

EDUCATION

EDCI 588
Montana Behavior Initiative (MBI) Summer Institute 2015
June 15-19, 2 optional credits
Location: Bozeman
Instructor: Carl Igo
This course will focus on updated content and delivery methods for teaching secondary agricultural education in Montana. Participants are expected to attend all curriculum-related sessions of the MAAE Summer Update, and then prepare a unit plan related to one or more of the topics presented. The unit plan must fit seamlessly into the Montana Agricultural Education curriculum and also address the updated curriculum standards for Agricultural Education provided through the Montana Office of Public Instruction. Unit plan must be submitted by July 30, 2015.
EDCI 588
Project Archaeology Educator Field School
Aug. 3-7, 2 credits
Location: Virginia City
Instructor: Crystal Alegria
Join Project Archaeology in historic Virginia City and learn how to bring archaeology and history into your classroom! You will receive the research-based curriculum guide *Project Archaeology: Investigating Shelter* which addresses the goals of the Montana Common Core. This guide will help you take learning to a deeper level by incorporating English language arts, social studies and science. The guide is inquiry-based, cross-curricular, includes performance-based assessments, incorporates the indigenous voice, and promotes cultural understanding. In the classroom, your students will learn to analyze artifacts, primary documents, and oral histories related to authentic archaeological sites using the basics of scientific inquiry (observation, inference, evidence and classification), providing them with college and career readiness skills. While in Virginia City, you will be immersed in the history of this significant gold rush town, learning from local historians, archaeologists, and members of the Shoshone-Bannock Tribe. Join us as we travel back in time to learn about Montana’s historic past!

EDCI 591
Project Archaeology: Investigating a Plains Tipi
June 15-18, 2 credits
Instructor: Crystal Alegria
Location: Museum of the Rockies, Bozeman
Join Project Archaeology at the Museum of the Rockies and learn how to bring archaeology and history into your classroom! You will receive the research-based curriculum guide *Project Archaeology: Investigating Shelter* which addresses the goals of the Montana Common Core. This guide will help you take learning to a deeper level by incorporating English language arts, social studies and science. The guide is inquiry-based, cross-curricular, includes performance-based assessments, incorporates the indigenous voice, and promotes cultural understanding. In the classroom, your students will learn to analyze artifacts, primary documents, and oral histories related to authentic archaeological sites using the basics of scientific inquiry (observation, inference, evidence and classification), providing them with college and career readiness skills. Join us as we travel back in time to learn about Montana’s historic past!

AGED 588
Professional Development for MT Agricultural Educators
June 22-26, 2 credits
(See course information under Agricultural Education)

ONLINE COURSES

Extended University also offers the following fully online educational programs during Summer Session 2015:
• National Teachers Enhancement Network (NTEN)
• School Library Media Certification Program
• Family Financial Planning
• Licensed Addiction Counselor Certificate Program
• Educational Leadership – Superintendent Certification
• Master of Science in Land Resources and Environmental Sciences
• Native American Studies

For program descriptions and a list of associated courses offered this summer, please refer to the Summer Online Courses section starting on p. 35.
Gallatin College

Our Mission
The mission of Gallatin College is to be responsive to the workforce needs of the Gallatin Valley by developing, delivering, and continually improving quality educational programs and services that will allow individuals to achieve their goals and create opportunities that will enrich their lives.

Gallatin Valley residents now have access to some of the best benefits of a local two-year college!

Degrees
• Associate of Arts
The Associate of Arts (A.A.) degree provides a foundation of general education studies with a concentration of coursework in the arts, humanities, and social sciences. This degree program is designed for students who are undecided about their educational goals, prefer smaller class sizes, need academic skills improvement, or desire a more gradual entrance into the University. The course offerings for this degree are scheduled to meet the needs of working adults and are offered primarily in the evening at a community location. Students may earn this degree as preparation to transfer to a Bachelor’s degree program at MSU or another university. Each student will follow a specific curriculum based on the student’s personal, long-term, and educational goals, as well as entering skills in math and writing.

• Associate of Science
The Associate of Science (A.S.) degree provides a foundation of general education studies with a concentration of coursework in mathematics and natural sciences. This degree program is designed for students who are undecided about their educational goals, prefer small class sizes, need academic skills improvement, or desire a more gradual entrance into the university. The course offerings for the A.S. are scheduled to meet the needs of working adults and are offered primarily in the evening at a community location. Students may earn the A.S. degree as preparation to transfer to a Bachelor’s degree program at MSU or another university. The degree is well-suited for students who wish to pursue studies or a career in the sciences or the medical or technology fields. Each student will follow a specific curriculum based on the student’s personal, long-term, and educational goals, as well as entering skills in math and writing.

Career Opportunities
• Aviation
The Associate of Applied Science degree gives you all the credentials required to pursue a career as a professional pilot.

• Bookkeeping
This one-year Bookkeeping Certificate of Applied Science (CAS) will prepare students for entry level accounting-related positions that are utilized by a variety of businesses. The Bookkeeping program is designed to provide students with the knowledge and skills necessary for employment in an accounting profession. These employees manage accounts payable, accounts receivable, general bookkeeping, payroll processing, and a number of other functions in businesses of all sizes across the community. In many instances these workers function as office managers in small businesses.

• Design Drafting Technology
Earning an Associate of Applied Science in Design Drafting will qualify you to work in any field where detailed drawings, diagrams and layouts are important aspects of developing new product designs and construction plans.

• Health Information Coding
The Certificate of Applied Science (CAS)—Health Information Coding will provide students the opportunity to learn all aspects of medical coding. The CAS will offer students the ability to code and work in a variety of health care settings: hospitals, clinics, home health agencies, long-term care, insurance companies, consulting firms and software vendors. They will often work on the administrative team of a health facility. This program closely follows the standards set forth by the American Health Information Management Associations (AHIMA) certification program. Upon completion of the required 35 hours of course work, students are eligible to take the certifying examination offered through the AHIMA. This industry-specific certification demonstrates to the employer that this student has a particular aptitude in coding.

• Interior Design
With the Associate of Applied Science in Interior Design, you will be qualified to work in a number of settings including independent consulting, design firms, architecture firms, kitchen and bath design, retail and window display, home builders, lighting stores, and many others.

• Medical Assistant
Medical Assistants are specially trained to work in ambulatory medical settings such as physicians’ offices, clinics, and surgical centers. Medical Assistants function as members of the health care delivery team and perform administrative duties and basic clinical procedures. This program will prepare students for the workforce in response to the identified need of our growing health care provider community.

• Welding Technology
This one-year Certificate of Applied Science degree in Welding Technology gives you the knowledge and skills to make satisfactory welds in all positions using the following techniques: shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, and flux cored arc welding. Graduates are prepared to test for AWS (American Welding Society) certification.

Developmental Education Program
Gallatin College offers preparatory courses in math, writing and college study skills to help MSU students who need to review or strengthen skills before they take on higher levels of these classes.

For more information:
Gallatin College
101 Hamilton Hall
Montana State University
Bozeman, MT 59717
(406) 994-5536
gallatincollege@montana.edu
www.montana.edu/gallatincollege
Summer Programs for Young People

OFFICE OF CONTINUING EDUCATION
For a brochure or more information contact:
Nicole Soll
(406) 994-6633
ContinuingEd@montana.edu
eu.montana.edu/ContinuingEd/youth

Peaks and Potentials
Grades 5-7, June 21-26
Peaks and Potentials is a residential/commuter camp designed for high ability/high potential students. Participants will select from a variety of workshops designed to provide academically challenging opportunities presented by university faculty and other qualified instructors. Recommendation from school personnel is required.

Children's Summer Sports Camp
Session I: June 15-July 2
Session II: July 6-July 31
Ages 5 to 11
Your child will get appropriate development instruction in a variety of movement and sport related activities including swimming, basketball, gymnastics and soccer. Sport related skills will be emphasized for older children. Movement exploration activities will be emphasized for younger children. Enrollment is limited to the first 110 children per session, so register early.

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
For more information, contact:
Museum of the Rockies
(406) 994-5257
visitmor@montana.edu
www.museumoftherockies.org

MSU EXTENSION SERVICE
Montana 4-H Congress
July 7-10
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

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

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.
Call for reservations:
Bozeman Parks and Recreation Department
(406) 582-2290
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
Special Summer Events

Summer 2015 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
renee@theemerson.org
www.TheEmerson.org

**Music on Main**

**June-August**

Every Thursday evening, June 25-August 13, 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
elle@downtownbozeman.org
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

**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
www.shakespeareintheparks.org

**Art Walks**

**June-September**

Every second Friday of the month, June through September (June 12, July 10, August 7, September 11), 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
elle@downtownbozeman.org
www.downtownbozeman.org

**CELEBRATION OF THE ARTS**

**Sweet Pea Festival 2015**

**August 7-9**

The Sweet Pea Festival, now in its 38th 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. 5 from 6:00-9:00 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
www.sweetpeafestival.org

---

64  SPECIAL SUMMER EVENTS
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

Chocolate – The Exhibit
May 16 – September 7

For thousands of years humans have been fascinated with the delicious phenomenon that we call “chocolate.” Discover the complete story behind this tasty treat that we crave. Through more than 200 objects and highly detailed replicas, immersive exhibits, interactive displays, and media, this engaging exhibition explores chocolate throughout history and around the world. Chocolate – The Exhibit will engage your senses and reveal facets of this sumptuous sweet that you’ve never thought about before. You’ll explore the plant, the products, and the culture of chocolate through the lenses of science, history, and popular culture.

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.

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.

For more information:
Museum of the Rockies
600 W. Kagy Blvd., Bozeman
(406) 994-2251
museum@montana.edu
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
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 trappers. 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.

**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

**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

**COUNTY FAIR**

**Gallatin County Fair**
July 15-19
The Gallatin County 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. The Fair always starts on the third Wednesday every July. Located at 901 N. Black, Bozeman.

**For more information:**
Gallatin County Fair  
(406) 582-3270  
www.gallatincountyfair.com  
facebook.com/gallatincountyfair  
Twitter@gallatincountyfairgrounds

**CRAZY DAYS**

**Downtown Crazy Days**
July 17-19
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

**CAR SHOW**

**“Cruisin’ on Main” Annual Car Show**
August 16
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

---

**Museum Location & Hours**

**Location:**
317 W. Main St., Bozeman

**Hours:**
- Labor Day to Memorial Day, Tues. - Sat., 11a.m.-4p.m.  
- Memorial Day to Labor Day, Mon. - Sat., 10a.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  
director@gallatinhistorymuseum.org  
www.gallatinhistorymuseum.org
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. A paper application is also available from the Office of Admissions upon request: (406) 994-2452 or admissions@montana.edu.

Graduate Students—New graduate students may access an online application for admission by going to www.montana.edu/gradschool/apply.html. Paper applications are available upon request from the Graduate School: (406) 994-4145 or gradschool@montana.edu.

Course Registration

New and summer-only undergraduate students will no longer be using a paper form to register for classes. Please refer to p. 4 for instructions regarding course registration.

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 2015. Former students who wish to attend Summer Session 2015 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
  Call (406) 994-2661 for more information
- Family & Graduate Housing Applications: www.montana.edu/fgh
  Call (406) 994-3730 for more information
The following pages contain information regarding important university policies, telephone numbers of prominent campus offices, an index to this bulletin, and a campus map. Questions not answered in these pages may be directed to the Office of Summer Session, (406) 994-7136 or summer@montana.edu.

Important University Policies ................................................................. 70
Telephone Numbers ............................................................................ 72
Index .................................................................................................. 73
Campus Map ....................................................................................... inside back cover
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 persons who believe they were 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/ 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. Knoweringly 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 an 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:

Diane Letendre
Director – 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: oie@montana.edu
Location: 118 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
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.

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 complete 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/

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/

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
Email: oie@montana.edu
www.montana.edu/equity/

Procedures for filing complaints of discrimination, harassment or violations of Title IX are available electronically at:
http://www2.montana.edu/policy/affirmative_action/ or in print from the address above.
Telephone Numbers (Area Code 406)

Academic Affairs, Office of the Provost and Vice President ............. 994-4371
212 Montana Hall

Administration and Finance, Office of the Vice President ............. 994-4361
201 Montana Hall

Admissions, Office of .......... 994-2452
201 Strand Union

Agriculture, College of .......... 994-3681
202 Linfield Hall

Arts and Architecture, College of ............................... 994-4405
217 Cheever Hall

ASMSU, Student Government ........ 994-2933
281 Strand Union Building

Bookstore ........................................ 994-2811
185 Strand Union Building

Career Services ......................... 994-4133
125A Strand Union Building

Counseling and Psychological Services............................... 994-4531
211 Swingle Health Center

Disability, Re-Entry and Veteran Services ............. 994-2824
180 Strand Union

Education, Health and Human Development, College of ............. 994-4133
250 Reid Hall

Engineering, College of ........... 994-2272
214 Roberts Hall

Extended University
Burns Technology Center (BTC) ........ 994-6550
128 EPS Building
Continuing Education, Office of ............. 994-6683
204 Culbertson Hall

Extension, Office of the Dean and Director ............. 994-6647
205A Culbertson

Financial Aid Services ......... 994-2845
183 Strand Union Building

Graduate School .................... 994-4145
108 Montana Hall

Health Service ......................... 994-2311
121 Swingle Health Center

International Programs .............. 994-4031
400 Culbertson Hall

Jake Jabs College of Business and Entrepreneurship ............. 994-4421

Letters and Science,
College of ........................................ 994-4288
2-205 Wilson Hall

Library ............................................. 994-3119

Museum of the Rockies ................ 994-2251

Nursing, College of ................. 994-3783
115 Sherrick Hall

Outdoor Recreation Center ...... 994-3621
1401 W. Lincoln Street

PE Complex ....................... 994-5500
114 Hosaues

Police, Campus ....................... 994-2121
Huffman Building

Post Office......................... 994-2672
Culbertson Hall, 1st Floor

President, Office of the .......... 994-2341
211 Montana Hall

Registrar, Office of the .......... 994-6650
101 Montana Hall

Research, Creativity and Technology Transfer, Office of the Vice President ............. 994-2891
207 Montana Hall

Residence Life ...................... 994-2661
31 Hedges Complex

Strand Union Building
ASK US Information ............ 994-4636
ASMSU ......................... 994-2933
Food Service ......................... 994-3663
Recreation Center
106 Strand Union Bldg......... 994-5803

Student Accounts ................. 994-1991
Controller's Office
103 Montana Hall

Student Activities ............... 994-3591
282 Strand Union Building

Student Success, Office of ........ 994-7627
177 Strand Union Building

Students, Dean of ............... 994-2826
120 Strand Union Building

Summer Session, Office of .......... 994-7136
212 Montana Hall

Testing Service ................. 994-6984
243 Reid Hall

University Studies ............... 994-3532
130 Gaines Hall

Women’s Center .................. 994-3836
372 Strand Union Building

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
Index

A
Abbreviations (Buildings, Days) ........... 27
Academic Information ...................... 9
Accounting Courses ........................ 28, 48
Activities Courses ............................28, 48
Admission Information ....................... 6-8
Application Form Access ..................... 67
Graduate ....................................12
Advising Services ............................. 5
Agricultural Education Courses .............28, 59
American Studies Courses ..................28, 36
American Computer Museum ................65
Animal, Range & Natural Resources Courses ................... 59
Anthropology Courses ....................... 28, 36
Architecture Courses ........................ 28
Art Courses ................................... 28, 48
Art Events ..................................... 64
ASMSU ........................................ 19
Associate Degrees ......................... 61
Auditing a Course ......................... 6, 9
Aviation Program ............................ 61

B
Biochemistry Courses ....................... 28
Biology Courses ............................... 28-29, 38, 45-49, 56-57
Bookkeeping Program .......................61
Bozeman Area ..................................23
City Map ........................................23
Special Events ...............................64-66
Summer Recreation .........................20-21, 62-63
Business Courses
Accounting ........................................28, 48
Finance .........................................29
General ...........................................29, 36
Management ...................................29, 36
Marketing .......................................29, 36

C
Calendars, Summer .........................2-9, inside front cover
Camps, Children’s Summer ..................62
Campus Map .................................inside back cover
Car Show .......................................66
Career Services ...............................19
Cat Card (ID Card) ...........................18
Chemistry Courses ..........................29, 38, 45-47, 57
Children’s Programs .........................62-63
Civil Engineering Courses ..................29, 36
Coaching Courses ............................29, 36, 49
Communications Courses .................29, 32
Community Health Courses ...............29, 36
Community Programs .......................62-66
Computer Science Courses .................29, 36, 56
Continuing Education Courses .........59-60, 62
Core Courses ..................................43-44

D
Courses, Summer Session ..................2, 9, inside front cover
Day Care Center .............................19
Dean of Students Office .....................19
Departmental Contacts ......................32-34
Design Drafting Technology Program ....61
Developmental Education Program ......61
Disabled Student Services .................8, 20, 71
Distance Delivery
Courses ......................................35-42, 44, 50, 56, 57
Downtown Crazy Days ......................66
Drop/Add Procedures .......................9, 14-15

E
Early Admission Program ..................58
Earth Science Courses
Earth Systems ..................................29, 39, 57
Geography ....................................30
Geology .........................................30, 51, 57
Economics Courses .........................29
Education Courses
Curriculum & Instruction ..................29, 37, 38-39, 41, 49, 57, 59-60
Education .....................................29, 36
Educational Leadership ......................29, 37
Special Education ............................29
Technology Education .......................32, 37
Educational Leadership—Superintendent Certification Program ..................42
Electrical Engineering Courses .........29, 36, 57
Employment, Student ......................19
Engineering Courses ........................29-30, 36, 50
English Courses
Linguistics ....................................30, 51, 53
Literature ......................................30, 37
Writing ........................................32, 37
Enrollment in Summer Session ...........6-8
Exhibits, Museum .........................65-66
Extended University Courses ..........59-60
Extension Service, MSU ....................62

F
Financial Aid ................................15-16, 20
Fees, Summer .................................13-15
Film Courses ..................................30, 50
Fish & Wildlife Science & Management ........................................ 50
Fitness Center ..................................20
Food/Nutrition Courses ....................31, 37, 40
Food Service, Residence Halls ...........17
Forms & Applications,
how to access ..................................67
Four-H (4-H) Congress .....................62
Freshman Student Opportunities ........58

G
Gallatin College ..............................61
Gallatin County Fair .........................66
General Information, Summer ..........2
Geography Courses .........................30
Geology Courses .............................30, 51, 57
German Courses .............................30, 51
Get a Head Start .............................58
Grade Reports ..................................9
Graduate Programs .........................11-12, 56-57

H
Head Start, New Students ....................58
Health & Human Development Courses
Community Health ..........................29
Counseling ....................................29
Family & Consumer Science ..............30, 36
Family Financial Planning ................42
Food/Nutrition ...............................31, 37, 40
Health ........................................30, 36
Kinesiology ....................................30

I
Identification Card (Cat Card) ..............18
Immunization Requirements ..............8
Important University Policies ..........70-71
Intent to Register Form, how to access .67
Interior Design Program ..................61
International Programs ...................21
Internet Courses ............................35-42, 44, 50, 56, 57
Internships, Student .......................19
<table>
<thead>
<tr>
<th>K</th>
<th>Kinesiology Courses ........................................ 30, 36</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Land Resources &amp; Environmental Science Courses ........................................ 39, 57</td>
</tr>
<tr>
<td></td>
<td>Language Courses</td>
</tr>
<tr>
<td></td>
<td>German ...................................................................... 30, 51</td>
</tr>
<tr>
<td></td>
<td>Spanish .................................................................. 31, 53</td>
</tr>
<tr>
<td></td>
<td>Library .................................................................. 21</td>
</tr>
<tr>
<td></td>
<td>Library (School) Media Certification Program ........................................ 42</td>
</tr>
<tr>
<td></td>
<td>Licensed Addiction Counselor Certificate Program ........................................ 42</td>
</tr>
<tr>
<td></td>
<td>Linguistics Courses ............................................ 30</td>
</tr>
<tr>
<td></td>
<td>Literature Courses .............................................. 30, 37</td>
</tr>
<tr>
<td></td>
<td>Living History Museum ........................................... 65-66</td>
</tr>
<tr>
<td></td>
<td>Loans, Student ...................................................... 15-16</td>
</tr>
<tr>
<td>M</td>
<td>Management Courses ............................................ 29, 36</td>
</tr>
<tr>
<td></td>
<td>Maps</td>
</tr>
<tr>
<td></td>
<td>Campus .................................................................. inside back cover</td>
</tr>
<tr>
<td></td>
<td>City of Bozeman .................................................... 23</td>
</tr>
<tr>
<td></td>
<td>Marketing Courses ................................................ 29, 36</td>
</tr>
<tr>
<td></td>
<td>Master's Degree Programs, Summer Mathematics Education ........................................ 56</td>
</tr>
<tr>
<td></td>
<td>Science Education ............................................... 56-57</td>
</tr>
<tr>
<td></td>
<td>Mathematics Courses ............................................. 30, 37, 40, 45-46</td>
</tr>
<tr>
<td></td>
<td>Master's Degree Program ........................................ 56</td>
</tr>
<tr>
<td></td>
<td>Media Arts Courses ................................................. 30, 37, 51</td>
</tr>
<tr>
<td></td>
<td>Medical Assistant Program ...................................... 61</td>
</tr>
<tr>
<td></td>
<td>Microbiology Courses ............................................ 38, 40, 56-57</td>
</tr>
<tr>
<td></td>
<td>Modern Languages Courses</td>
</tr>
<tr>
<td></td>
<td>German .................................................................... 30, 51</td>
</tr>
<tr>
<td></td>
<td>Spanish ................................................................... 31, 53</td>
</tr>
<tr>
<td></td>
<td>Montana 4-H Congress ............................................ 62</td>
</tr>
<tr>
<td></td>
<td>MSSE Courses ........................................................ 38, 56-57</td>
</tr>
<tr>
<td></td>
<td>Museum Exhibits &amp; Camps</td>
</tr>
<tr>
<td></td>
<td>American Computer Museum .................................... 65</td>
</tr>
<tr>
<td></td>
<td>Museum of the Rockies .......................................... 62, 65</td>
</tr>
<tr>
<td></td>
<td>The Pioneer Museum .............................................. 65-66</td>
</tr>
<tr>
<td></td>
<td>Music</td>
</tr>
<tr>
<td></td>
<td>Courses .............................................................. 30-31, 37, 52, 60, 64</td>
</tr>
<tr>
<td></td>
<td>Events .................................................................... 64</td>
</tr>
<tr>
<td>N</td>
<td>National Teachers Enhancement</td>
</tr>
<tr>
<td></td>
<td>Network (NTEN) .................................................... 38-41</td>
</tr>
<tr>
<td></td>
<td>Native American Studies Courses .......................... 31, 53</td>
</tr>
<tr>
<td></td>
<td>Non-Credit Courses .............................................. 9</td>
</tr>
<tr>
<td></td>
<td>Nondiscrimination Policies .................................... 70-71</td>
</tr>
<tr>
<td></td>
<td>Nursing Courses ................................................... 31, 37</td>
</tr>
<tr>
<td></td>
<td>Nutrition Courses ................................................. 31, 37, 40</td>
</tr>
<tr>
<td>O</td>
<td>On-Campus Living ............................................... 17-18</td>
</tr>
<tr>
<td></td>
<td>Online Courses .................................................. 35-42, 44, 50, 56, 57</td>
</tr>
<tr>
<td></td>
<td>Orientation, Summer ............................................. 5</td>
</tr>
<tr>
<td></td>
<td>Outdoor Recreation Program ................................... 20-21</td>
</tr>
<tr>
<td>P</td>
<td>Parking, On-Campus ............................................. 22</td>
</tr>
<tr>
<td></td>
<td>Peaks &amp; Potentials ............................................... 62</td>
</tr>
<tr>
<td></td>
<td>Philosophy Courses ............................................... 31, 37, 52</td>
</tr>
<tr>
<td></td>
<td>Photography Courses ............................................. 30, 31, 52</td>
</tr>
<tr>
<td></td>
<td>Physical Education Facilities .................................. 20</td>
</tr>
<tr>
<td></td>
<td>Physics Courses .................................................. 31, 40-41, 45-47, 56-57</td>
</tr>
<tr>
<td></td>
<td>Pioneer Museum ..................................................... 65-66</td>
</tr>
<tr>
<td></td>
<td>Policies, University .............................................. 70-71</td>
</tr>
<tr>
<td></td>
<td>Political Science Courses ...................................... 31, 37, 52</td>
</tr>
<tr>
<td></td>
<td>Preliminary Course Listing ..................................... 28-32</td>
</tr>
<tr>
<td></td>
<td>Pre-Med Courses ................................................... 45-47</td>
</tr>
<tr>
<td></td>
<td>Psychological Services ......................................... 20</td>
</tr>
<tr>
<td></td>
<td>Psychology Courses .............................................. 31, 37, 53</td>
</tr>
<tr>
<td>R</td>
<td>Range Science Courses .......................................... 59</td>
</tr>
<tr>
<td></td>
<td>Recreation, Summer .............................................. 62-63</td>
</tr>
<tr>
<td></td>
<td>Surrounding Area .................................................... 23</td>
</tr>
<tr>
<td></td>
<td>Recreational Sports &amp; Fitness ............................... 20</td>
</tr>
<tr>
<td></td>
<td>References ............................................................. 69</td>
</tr>
<tr>
<td></td>
<td>Refunds, Fees ........................................................ 14-15</td>
</tr>
<tr>
<td></td>
<td>Registration Forms, Summer, how to access .............. 67</td>
</tr>
<tr>
<td></td>
<td>Registration Information</td>
</tr>
<tr>
<td></td>
<td>Summer Session ................................................... 2, 4-5</td>
</tr>
<tr>
<td></td>
<td>Fall Semester ........................................................ 5</td>
</tr>
<tr>
<td></td>
<td>Religious Studies Courses ...................................... 31, 37</td>
</tr>
<tr>
<td></td>
<td>Renne Library ........................................................ 21</td>
</tr>
<tr>
<td></td>
<td>Residence Halls &amp; Suites ..................................... 17</td>
</tr>
<tr>
<td></td>
<td>Room Charges ........................................................ 17</td>
</tr>
<tr>
<td>S</td>
<td>Schedule of Courses</td>
</tr>
<tr>
<td></td>
<td>General Information ............................................... 26-27</td>
</tr>
<tr>
<td></td>
<td>Online Access Instructions .................................... 26</td>
</tr>
<tr>
<td></td>
<td>Preliminary Course Listing .................................... 28-32</td>
</tr>
<tr>
<td></td>
<td>School Library Media Certification Program ............. 42</td>
</tr>
<tr>
<td></td>
<td>Science &amp; Mathematics Courses .............................. 45-47</td>
</tr>
<tr>
<td></td>
<td>Science Education Master's Degree Program (MSSE) ...... 56-57</td>
</tr>
<tr>
<td></td>
<td>Shakespeare in the Parks ....................................... 64</td>
</tr>
<tr>
<td></td>
<td>Sociology Courses ............................................... 31, 37, 53</td>
</tr>
<tr>
<td></td>
<td>Spanish Courses ................................................... 31, 53</td>
</tr>
<tr>
<td></td>
<td>Special Summer Courses ........................................ 48-53</td>
</tr>
<tr>
<td></td>
<td>Special Summer Events ......................................... 64-66</td>
</tr>
<tr>
<td></td>
<td>Sports Camp, Children's ......................................... 62</td>
</tr>
<tr>
<td></td>
<td>Statistics Courses ............................................... 32, 37, 45-46</td>
</tr>
<tr>
<td></td>
<td>Strand Union Building (SUB) .................................. 21</td>
</tr>
<tr>
<td></td>
<td>Student ID Card .................................................... 18</td>
</tr>
<tr>
<td></td>
<td>Student Health Service ........................................... 22</td>
</tr>
<tr>
<td></td>
<td>Student Services .................................................. 22</td>
</tr>
<tr>
<td></td>
<td>Student Success, Office of ..................................... 19-20</td>
</tr>
<tr>
<td></td>
<td>Summer Session, Office of ...................................... 2</td>
</tr>
<tr>
<td></td>
<td>Summer 2015 Offerings ........................................... 25</td>
</tr>
<tr>
<td></td>
<td>Superintendent Certification Program .................... 42</td>
</tr>
<tr>
<td></td>
<td>Surveying Course .................................................. 32</td>
</tr>
<tr>
<td></td>
<td>Sustainable Food System Courses .......................... 54</td>
</tr>
<tr>
<td></td>
<td>Sweet Pea Festival ................................................. 64</td>
</tr>
<tr>
<td>T</td>
<td>Technology Education Courses .............................. 32, 37</td>
</tr>
<tr>
<td></td>
<td>Telephone Numbers, Campus ..................................... 32-34, 72</td>
</tr>
<tr>
<td></td>
<td>Tennis, Beginning Course ....................................... 48</td>
</tr>
<tr>
<td></td>
<td>Theatre Arts Courses ............................................. 32, 53</td>
</tr>
<tr>
<td></td>
<td>Events ................................................................. 64</td>
</tr>
<tr>
<td></td>
<td>Transcripts ............................................................. 9</td>
</tr>
<tr>
<td></td>
<td>Tuition (Fees) ........................................................ 13-15</td>
</tr>
<tr>
<td>U</td>
<td>University Policies .............................................. 70-71</td>
</tr>
<tr>
<td></td>
<td>University Studies Courses ................................... 29, 32, 37</td>
</tr>
<tr>
<td></td>
<td>University Withdrawal .......................................... 14-15</td>
</tr>
<tr>
<td>V</td>
<td>Vehicle Registration ............................................. 22</td>
</tr>
<tr>
<td></td>
<td>Veterans Educational Benefits .................................. 14</td>
</tr>
<tr>
<td></td>
<td>Services ............................................................. 20</td>
</tr>
<tr>
<td>W</td>
<td>Weight Training, Beginning Course ....................... 48</td>
</tr>
<tr>
<td></td>
<td>Welcome ............................................................... 1, 23</td>
</tr>
<tr>
<td></td>
<td>Welding Technology Program .................................... 61</td>
</tr>
<tr>
<td></td>
<td>Withdrawal from Classes ....................................... 9, 14-15</td>
</tr>
<tr>
<td></td>
<td>Refund Schedule ................................................... 15</td>
</tr>
<tr>
<td></td>
<td>Writing Courses ................................................... 32, 37</td>
</tr>
<tr>
<td>Y</td>
<td>Yoga, Beginning Course ........................................ 48</td>
</tr>
<tr>
<td></td>
<td>Youth Programs .................................................... 62-63</td>
</tr>
</tbody>
</table>