Master of Science in Science Education

403 Linfield Hall, Bozeman, Montana 59717
406-994-5679
Home Page: www.montana.edu/msse

Program Director
Peggy S. Taylor

Admission
Entrance requirements include: a bachelor’s degree in an area of science, science education, or related area; at least two years of science teaching in educational settings; and an undergraduate GPA of 3.0 or higher. Students with a GPA of less than 3.0 have the opportunity to begin the program as a non-degree student to earn admissions.

Applications are accepted throughout the fall, spring, and summer sessions. Application documents include official transcripts, three letters of recommendation, essay, and resume. For more information about the application process, visit the MSSE website (http://www.montana.edu/msse).

Program Features
• Designed for science educators by experienced science, science education, and mathematics faculty with the collaboration of outstanding classroom teachers
• Over 80% of the courses may be taken on-line by asynchronous, computer-mediated communication
• The opportunity to work at home without frequent trips to campus
• The chance to participate in classes when it is most convenient for you
• Popular on-campus summer field and lab experiences that vary in length from one to two weeks
• Personalized science education capstone project for each student
• Interdisciplinary/inter-college program
• Large selection of science content courses
• Self-paced program

Online graduate courses are offered during the fall, spring, and summer sessions; however, Montana-based field and lab graduate courses are offered during the summer session, only.

Thirty semester credits are required for the degree. In addition to completing a group of core courses, students develop interdisciplinary combinations of science courses from offerings in biology, chemistry, earth science, microbiology, plant sciences, physics, engineering and other related areas. The remaining four credits may be additional science course and/or elective education courses.

Interdisciplinary efforts and incorporation of both science content and pedagogy have been encouraged during the development of courses. Each student seeking the degree is advised by a three-person faculty committee, and programs are designed taking into account the student’s background, interests, and career goals.

Instructors
The MSSE degree program was developed by Montana State University faculty members who are active in science, science education, and mathematics. The program is a unique, cooperative effort of several colleges and departments. Faculty members of the departments of Biology, Chemistry and Biochemistry, Earth Science, Education, Health and Human Development, Land Resources and Environmental Science, Mathematics, Microbiology, Plant Science and Environmental Science, Physics, and other related areas such as Engineering will teach most courses. Faculty members of other departments and units will play a major role in some courses. Science courses are offered through the appropriate science content department.

Program Requirements
The program of study may begin with distance learning courses in any semester or summer classes at the MSU-Bozeman campus. Study continues with distance learning courses that students take from their homes or workplaces, and ends with a campus visit for presentation of the results of a personalized science education capstone project. Over 80% of the courses and credits may be taken off-campus by asynchronous, computer-mediated communication. Thirty semester credits are required for the degree. Students typically will complete the degree in two or three years.

All students seeking the MSSE degree complete core courses (14 credits) in education which includes a three-credit capstone project. For the remaining credits (16), students select interdisciplinary combinations of science content courses (12 credits minimum) from offerings in biology, chemistry, earth science, land resources and environmental science, microbiology, physics, and plant science. Interdisciplinary efforts and incorporation of both science content and pedagogy have been encouraged during the development of courses. The final four credits in the thirty-credit program are electives selected from education and/or science courses.

Required Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSSE 501</td>
<td>Inquiry Sci Eng Prac</td>
<td>2</td>
</tr>
<tr>
<td>EDCI 504</td>
<td>Assessment and Evaluation in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDCI 505</td>
<td>Foundation of Action Research in Teaching</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>and Learning</td>
<td></td>
</tr>
<tr>
<td>EDCI 509</td>
<td>Implementing Action Research in Teaching</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>and Learning</td>
<td></td>
</tr>
<tr>
<td>EDCI 575</td>
<td>Professional Paper and Project</td>
<td>1-4</td>
</tr>
</tbody>
</table>

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