

Department of Science Education

M.S. in Science Education

Program Director - Dr. Mary Alice Carlson

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Home Page: www.montana.edu/msse (<http://www.montana.edu/msse/>)

Program Features

- Designed for science educators by experienced science, science education, and mathematics faculty in collaboration with outstanding classroom teachers
- Online courses offered during the academic year, providing flexibility to participate at times most convenient for you
- Montana-based summer field and lab courses, ranging from one day to one week in length
- Accredited 30-credit graduate program
- Graduate in 2 to 3 years with up to 6 years to complete all coursework
- Courses structured to support both formal classroom teachers and informal science educators
- Emphasizes Next Generation Science Standards
- Personalized science education capstone project tailored to each student
- Interdisciplinary program with opportunities to expand knowledge across all science disciplines
- Affordable online graduate program tuition and fees

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

Instructors

The MSSE degree program was developed by Montana State University faculty who are active in science, science education, and mathematics. The program is a unique, collaborative effort across multiple colleges and departments. Most courses are taught by faculty from the departments of Biology, Chemistry and Biochemistry, Earth Science, Education, Engineering, Health and Human Development, Land Resources and Environmental Science, Mathematics, Microbiology, Plant Sciences and Plant Pathology, Physics, and related disciplines. Faculty from other departments and units also contribute to select courses. When appropriate, courses may be taught by faculty from other institutions.

Admission

Entrance requirements include: A bachelor's degree in science, science education, elementary/middle school/secondary education, or a related area; be a practicing educator with a strong science background; 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 admission.)

Applications are accepted throughout the fall, spring, and summer sessions. Required application materials include all official transcripts, three letters of recommendation, an essay, and a resume. For more information about the application process, visit the MSSE website (<https://www.montana.edu/msse/home/>).

Online Graduate Certificates

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montana.edu/msse/ (<https://www.montana.edu/msse/graduate-certificates/>)
[graduate-certificates/index](https://www.montana.edu/msse/graduate-certificates/index) (<https://www.montana.edu/msse/graduate-certificates/>)

Montana State University's online graduate certificates help science educators gain knowledge and competence in the following specialized science teaching areas of their choice:

- Chemistry
- Climate Science
- Earth Science
- Elementary School Science
- Life Science
- Physics
- STEM

Program Features

- Graduate Certificates in Science Education are offered through MSU's Master of Science in Science Education (MSSE) program.
- Certificates are designed for teachers of all backgrounds; fellow students will be K-12 teachers, community college instructors, museum professionals, and informal science educators. Students learn alongside peers from around the world, gaining new ideas and diverse perspectives.
- Courses are 100% online without the need to come to the MSU campus. However, students have access to popular summer field & lab courses that utilize the diverse environment of Montana to teach scientific principles and provide models of field-based instruction, if they choose to come to campus.
- Courses are asynchronous, allowing students to log in any time of the day or night. In order to maximize interaction among students, instructors will set weekly schedules and assignment deadlines.
- Courses are rigorous, content-focused, and specially designed for teachers.
- Instructors are experts in their fields and trained in online teaching.
- Our team offers fast, friendly, one-on-one support from the application process to certificate completion.

Time to Complete

Graduate Certificates in Science Education can be completed in 12 credits from courses that students choose from their specialized content areas. Most students complete the certificate in 1-2 years. Because students have different responsibilities at work and home, not all students will progress in the program at the same pace. However, all coursework for each certificate must be completed within a 6-year window of time.

Students may transfer up to 3 graduate credits from MSU's Master of Science in Science Education (MSSE) courses taken as a non-degree student. Up to 3 graduate credits from other institutions may also be applied. All transfer credit is subject to approval. All 12 credits earned

towards a graduate certificate may apply toward the MSSE degree for those that choose to pursue their master's.

Graduate Certificates in Science Education are not licensing and/or endorsement programs. Students interested in initial licensure should check with the Department of Education in their states for local certification policies. Coursework taken through the graduate certificate program and MSSE could be used toward licensure/endorsements depending on the requirements of individual states.

Graduate Programs

- M.S. in Science Education (<http://catalog.montana.edu/graduate/letters-science/science-education/ms-science-education/>)(*Online*)

Graduate Certificates

- Graduate Certificate in Chemistry Teaching (<http://catalog.montana.edu/graduate/extended-university/science-teaching/certificate-science-teaching-chemistry/>) (*Online*)
- Graduate Certificate in Climate Science Teaching (<http://catalog.montana.edu/graduate/extended-university/science-teaching/certificate-science-teaching-climate-science/>) (*Online*)
- Graduate Certificate in Earth Science Teaching (<http://catalog.montana.edu/graduate/extended-university/science-teaching/certificate-science-teaching-earth-science/>) (*Online*)
- Graduate Certificate in Elementary Science Teaching (<http://catalog.montana.edu/graduate/extended-university/science-teaching/certificate-elementary-school-science/>) (*Online*)
- Graduate Certificate in Life Science Teaching (<http://catalog.montana.edu/graduate/extended-university/science-teaching/certificate-science-teaching-life-science/>) (*Online*)
- Graduate Certificate in Physics Teaching (<http://catalog.montana.edu/graduate/extended-university/science-teaching/certificate-science-teaching-physics/>) (*Online*)
- Graduate Certificate in STEM Teaching (<http://catalog.montana.edu/graduate/letters-science/stem-teaching-cert/>) (*Online*)