M.S. in Mathematics - Mathematics Education Option (MSMME)

The MSMME program emphasizes the teaching and learning of high school mathematics. The program offers a blend of courses addressing key topics in mathematics content and pedagogy. The MSMME curriculum incorporates problem-based and active learning and aligns with the NCTM Principles and Standards for School Mathematics as well as the Common Core State Standards for Mathematics. The 30-credit-hour degree includes a set of required content foundation courses, required pedagogy courses from among several choices, and a variety of elective courses. Completing the program typically requires taking a series of online courses during the academic year and attending at least two three-week summer sessions in Montana. Embedded in the required coursework are classroom-based research projects that involve addressing specific challenges in teaching, experimenting with new instructional strategies, or designing, teaching, and assessing lessons in a specific topic area.

More information is available at http://www.math.montana.edu/MSMME

Admission

Preference will be given to applicants who have:
1. Earned BS or BA degree from a mathematics or mathematics teaching program
2. Certification in at least one state to teach secondary mathematics
3. A current position in high school teaching
4. Two or more years of teaching experience
5. An undergraduate GPA of 3.0 or higher

Consideration will be given to other applicants as space allows:
• High school teachers with a significant mathematics background but not holding secondary mathematics certification (e.g., private school teachers)
• Certified secondary mathematics teachers not currently teaching but who intend to teach secondary mathematics in the near future
• Middle school teachers who hold secondary mathematics certification

Special Notes:
• GRE scores are NOT required for admission to the MSMME program.

• The MSMME Program is approved under the Western Regional Graduate Program (WRGP), which allows teachers from Western states to pay in-state resident tuition. The participating states are Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

Program Requirements

1. Core Content Courses (required):
   - M 518 Statistics For Teachers 3
   - M 524 Linear Algebra for Teachers 3

2. Pedagogy Courses (required):
   - M 520 Standards-Based Math for Teachers 6
   - M 521 Mathematics Learning Theory for Teachers
   - M 528 Curriculum Design
   - M 529 Assessment Models and Issues

3. Electives - The 4 courses listed above also serve as electives. Additional courses are offered on demand.
   - M 517 Advanced Mathematical Modeling for Teachers
   - M 523 Number Structure for Teachers
   - M 526 Discrete Mathematics for Teachers
   - M 577 Improving Mathematics Edu. Through Action Research

Total Credits 30

MSMME Program Portfolio:

Graduates of the MSMME program must demonstrate a thorough understanding of the standards that guide their profession and how these standards undergird their own professional growth. In addition, they are expected to continuously reflect on their learning; to recognize personal gains in content knowledge and pedagogical skills; and to engage in classroom research experiences. To meet these capstone requirements, teachers build a program portfolio throughout their course of study and present a summative reflection upon completion of coursework. This portfolio, which must be publicly presented and discussed with committee members, represents the capstone event of the program and replaces a comprehensive examination.