



# Make a difference in mathematics education, add to your expertise, and multiply your career options

- The Elementary Math Specialist Certificate program will prepare you to improve mathematics teaching and learning in Michigan schools. Further your career by training for a position as a math coach, teacher leader, mathematics program administrator or supervisor, or elementary math teacher.
- Build your content knowledge, expand your teaching methods, and strengthen your leadership skills through examination of topics and trends in mathematics education. Coursework will focus on the practical application of theories and integration of technology in the classroom to improve student learning.
- Wayne State is the only institution in Michigan that offers this program. Classes are available in traditional and hybrid formats during the fall, winter, and spring/summer terms.
- + Candidates should be licensed to teach elementary school in Michigan.

## **Introductory Certificate (12 credits)**

#### Required courses

- MAE 6400 Elementary School: Mathematics Curriculum and Assessment
- MAE 6150 Special Topics: Teacher Learning and Professional Development in Mathematics Education

# credits

can be applied toward a master's degree

#### Elective courses (complete at least two)

- MAE 6450 Integrating Literature and Mathematics in the Elementary School
- MAT 5180 Geometry for Middle School Teachers MAT 5190 Number Theory for Middle School Teachers
- MAT 5120 Abstract Algebra for Middle School Teachers
   MAT 5130 Problem Solving for Middle School Teachers
- MAE 6050 Teaching Mathematics in the Middle Grades

- MAE 7400 Seminar in Mathematics Education
  MAE 8400 Technology in Mathematics Learning and Teaching
  MAE 8550 Theoretical Perspectives on Learning Mathematics

### **Advanced Certificate (12 credits)**

In addition to taking the two required and two elective courses necessary to earn an introductory certificate, candidates must take the courses below.

#### **Required course**

• MAE 7400 Seminar in Mathematics Education

#### Elective courses (take at least three electives listed here or above)

- MAE 7150 Advanced Studies in Teaching Discrete Mathematics MAE 7200 Advanced Studies in Teaching Statistics and Probability MAE 7250 Advanced Studies in Teaching Algebra MAE 7300 Advanced Studies in Teaching Geometry IT 8650 Staff Development and School Improvement

- IT 7220 Multimedia for Instruction
- IT 7230 Advanced Multimedia for Instruction

- T 6140 Designing Web Tools for the Classroom
  IT 6230 Internet in the Classroom
  CED 6700 The Role of the Teacher in Guidance
- EDA 7600 The Structure of American Education
- EDA 7660 Administrative Leadership in School-Community Relations and Public Relations
- EDA 8630 Supervision





