

Elementary Mathematics Specialist, M.A.

Degree Offered

- Master of Arts

Nature of the Program

The Elementary Mathematics Specialist Master of Arts program is designed to prepare currently licensed teachers to be teacher leaders in elementary mathematics. The design of the coursework in the program includes opportunities for students to engage in: 1) an intensive study of mathematics concepts relevant to the elementary grades, 2) an examination of effective teaching practices for supporting mathematics learning for all students; and 3) targeted study of the knowledge, skills, and dispositions needed to be an effective teacher leader.

The program includes four (4), three-credit hour mathematics courses, four (4), two-credit hour mathematics pedagogy courses, three (3), three-credit hour teacher leadership courses, and (1) three-credit hour field-based practicum. All courses are web-based.

Admissions

Admission into the Elementary Mathematics Specialist major is based on the academic strength of the applicant as well as the alignment of the applicant's goals with the goals of the program. Students are selected based on their fulfillment of the specific admissions requirements listed below and the overall strength of their application.

Application requirements:

- Official transcripts verifying completion of an undergraduate degree from an accredited college or university. This program utilizes the University GPA requirement (<http://catalog.wvu.edu/graduate/graduateeducationatwestvirginiauniversity/#classificationtext>) for entry to the program.
- Three official letters of recommendation speaking to the applicant's potential as a teacher leader in elementary mathematics.
- Submission of an official goal statement related to the program, including professional goals and interest in this specific program.
- Professional vita.
- Record of initial certification in elementary or early childhood education with 18 months of successful teaching experience.

Note: The year and a half teaching experience must be completed by the end of the program.

Applications will be due by April 15 the semester prior to program entrance, although candidates will be reviewed on a rolling basis. Candidates will be admitted for a summer start only.

Admission Requirements 2024-2025

The Admission Requirements above will be the same for the 2024-2025 Academic Year.

Major Code: 5524

Major Requirements

Code	Title	Hours
A minimum GPA of 3.0 is required for all coursework applied toward the major.		
Core Courses		
C&I 625	Leadership Field Experiences and Clinical Practice	3
C&I 670	Practitioner Inquiry	3
C&I 672	Professional Learning Communities: Creating Spaces for Collaboration, Coaching, and Praxis	3
C&I 673	Teacher Leadership: Transforming Identities, Contexts, and Practices	3
Mathematics Courses		
MATH 510	Number Systems and Operations	3
MATH 511	Rational Numbers and Proportional Reasoning	3
MATH 512	Geometry and Measurement	3
MATH 513	Functions and Algebraic Reasoning	3
Mathematics Education Courses		
C&I 635	Selecting, Designing, and Using Mathematical Tasks in K-6	2
C&I 636	Learning Trajectories in Elementary Mathematics	2
C&I 637	Classroom Practices for Effective Learning Environments in Elementary Mathematics	2

Major Learning Outcomes

ELEMENTARY MATHEMATICS SPECIALIST

Goal 1: Teacher leaders will work collaboratively with educators and coach/mentor classroom teachers in the use of research-based ambitious teaching practices to design and implement curriculum and classroom instruction.

- Teacher leaders will collaborate with classroom teachers to plan standards-based mathematics lessons and units that incorporate a variety of pedagogies and learning tasks to promote active learning and deepen understanding of mathematical concepts and improve learning outcomes among K-12 students.
- Teacher leaders will coach and support teachers in creating an equitable learning environment that respects and values all K-12 students and addresses their diverse learning needs.

Goal 2: Teacher leaders will analyze school-based curricula and district data in order to create professional development programs that address the current strengths needs of teachers and K-12 students.

- Teacher leaders will evaluate mathematics standards, textbooks, and standardized assessments to make recommendations for addressing learning and achievement gaps
- Teacher leaders will explore and analyze school and district mathematics data to develop a vision for the professional development of educators and school improvement that disrupts the inequities of the educational status quo.
- Teacher leaders will plan, implement, and evaluate mathematics professional development programs at the school and/or district level.
- Teacher leaders will coach/model effective mathematics teaching practices as defined by professional mathematics organizations as they engage teachers in ongoing professional development and provide support to educators in their classrooms.

Goal 3: Teacher leaders will collaborate and share information with school stakeholders about K-12 students, curriculum, instruction, and assessment.

- Teacher leaders will share critical issues, policy initiatives, and curriculum trends in mathematics teaching and learning with colleagues, parents, and local and state school boards.
- Teacher leaders will collaborate with teachers, parents, and community members to create shared visions and action plans to improve mathematics teaching and learning in their schools.