



MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION  
OFFICE OF EDUCATOR QUALITY – EDUCATOR PREPARATION

# MATHEMATICS SPECIALIST, GRADES 1-6

EDUCATOR PREPARATION PROGRAM NAME MISSOURI STATE UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 119119
--	---

## INSTRUCTIONS

Please complete Educator Preparation Program (EPP) Name & EPP Code above. The EPP Code may be located at <https://dese.mo.gov/sites/default/files/EPP-Code-Name.pdf>

### Certification Requirements:

- Course Number – List the course number(s) for the course(s) or groups of competencies that align with the specific section of the requirements. It is possible to have more than one course or group listed.
- Course Title – List the course title(s) for the course(s) or groups of competencies that align with the specific section of the requirements. It is possible to have more than one course or group listed.
- Semester Hours – List the number of semester hours for each specific section. It is possible to use decimals (to the nearest tenth) to indicate partial use of a course to meet a requirement. The total number of semester hours must meet or exceed the minimum required number of semester hours.

Email the completed cover sheet, curriculum matrix, and advising/program information to [DESE.MoSPETransition@dese.mo.gov](mailto:DESE.MoSPETransition@dese.mo.gov) on or before the date established in the Transition Plan.

QUESTIONS: Contact Gale Hairston, 573/751-1668 or [DESE.MoSPETransition@dese.mo.gov](mailto:DESE.MoSPETransition@dese.mo.gov)

## General Requirements

Valid Missouri Teaching Certification

Two-Years of Mathematics Teaching Experience

### A. Professional Requirements (Minimum of 24 semester hours)

#### 1. Mathematical Content Knowledge

	Course Number	Course Title	Semester Hours
a. Mathematics Knowledge-Concepts, structures, skills, and processes of school mathematics from an advanced perspective including number/operation; geometry/measurement; algebra; and probability and statistics	MTH750	Number and Operations for Elementary Mathematics Specialists (EMS)	3
	MTH752	Rational Numbers and Proportional Thinking for EMS	3
b. Specialized Mathematics Knowledge of Teaching-Mathematics that relates to helping student understand school mathematics, often referred to as Mathematics Knowledge for Teaching (MKT)		**Coursework from 2. Pedagogical Content Knowledge (PCK) for Mathematics also meets the standards for Mathematics Content Knowledge	

#### 2. Pedagogical Content Knowledge (PCK) for Mathematics

	Course Number	Course Title	Semester Hours
a. Understanding how students and adults learn mathematics	MTH758	Data and Probability for EMS	3
b. Effective teaching strategies for supporting mathematics learning	MTH754	Algebraic Reasoning for EMS	3
c. Curriculum trajectories, materials, standards and methods for aligning curriculum systems	MTH760	Geometry and Measurement for EMS	3
d. Evaluation of mathematical abilities and achievement including formal and informal diagnostic procedures and in prescriptive instruction		**Coursework from 1. Mathematics Content Knowledge also meets the standards for Pedagogical Content Knowledge (PCK) for Mathematics	

The Department of Elementary and Secondary Education does not discriminate on the basis of race, color, religion, gender, national origin, age, or disability in its programs and activities. Inquiries related to Department programs and to the location of services, activities, and facilities that are accessible by persons with disabilities may be directed to the Jefferson State Office Building, Office of the General Counsel, Coordinator – Civil Rights Compliance (Title VI/Title IX/504/ADA/Age Act), 6<sup>th</sup> Floor, 205 Jefferson Street, P.O. Box 480, Jefferson City, MO 65102-0480; telephone number 573-526-4757 or TTY 800-735-2966 email [civilrights@dese.mo.gov](mailto:civilrights@dese.mo.gov).

#### 3. Foundations of Leadership

	Course Number	Course Title	Semester Hours
a. Effective communication strategies within and outside school	ELE736	Foundations of Mathematical Leadership I for EMS	2

b. Professional development expertise ability to plan, develop, implement and evaluate learning environments for teachers	ELE737	Foundations of Mathematical Leadership II for EMS	3
c. Ability to establish and nurture professional communities of learners-students, parents, and educators			
d. Informed about and contribute to policy and professional organization work related to teaching and learning mathematics			
4. Culminating Clinical Experience (Three semester hours of experience working with a full range of students and educators in various professional development settings)			
	Course Number	Course Title	Semester Hours
Supervised mathematics practicum in which candidates acquire experience working with a full range of students and teachers in various professional development settings.	ELE730	Internship in Number and Operations	1
	ELE732	Internship in Rational Numbers and Proportional Thinking	1
	ELE734	Internship in Algebraic Reasoning	1
	ELE738	Internship in Geometry and Measurement	1
Professional Requirements - Total Semester Hours			24

EMS=Elementary Mathematics Specialists

\*\*Content of coursework outlined in #1. and #2. are integrated and cover requirements for both sections.