



**ELEMENTARY MATHEMATICS SPECIALIST, GRADES 1-6**

EDUCATOR PREPARATION PROGRAM NAME <b>UNIVERSITY OF CENTRAL MISSOURI</b>	EDUCATOR PREPARATION PROGRAM CODE <b>121121</b>
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**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 Educator Preparation, 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	MATH 5800 or ECEL 5805	Number & Operations for EMS	0.5
	MATH 5810 or ECEL 5815	Ratnl Num & Proportional Rel for EMS	0.5
	MATH 5820 or ECEL 5825	Algebraic Reasoning for EMS	0.5
	MATH 5830 or ECEL 5835	Geom & Measurement for EMS	0.5
	MATH 5840 or ECEL 5840	Data and Probability for EMS	0.5
b. Specialized Mathematics Knowledge of Teaching-Mathematics that relates to helping student understand school mathematics, often referred to as Mathematics Knowledge for Teaching (MKT)	MATH 5800 or ECEL 5805	Number & Operations for EMS	0.5
	MATH 5810 or ECEL 5815	Ratnl Num & Proportional Rel for EMS	0.5
	MATH 5820 or ECEL 5825	Algebraic Reasoning for EMS	0.5
	MATH 5830 or ECEL 5835	Geom & Measurement for EMS	0.5
	MATH 5840 or ECEL 5840	Data and Probability for EMS	0.5

2. Pedagogical Content Knowledge (PCK) for Mathematics

	Course Number	Course Title	Semester Hours
a. Understanding how students and adults learn mathematics	MATH 5800 or ECEL 5805	Number & Operations for EMS	0.5
	MATH 5810 or ECEL 5815	Ratnl Num & Proportional Rel for EMS	0.5
	MATH 5820 or ECEL 5825	Algebraic Reasoning for EMS	0.5
	MATH 5830 or ECEL 5835	Geom & Measurement for EMS	0.5
	MATH 5840 or ECEL 5840	Data and Probability for EMS	0.5

b. Effective teaching strategies for supporting mathematics learning	MATH 5800 or ECEL 5805	Number & Operations for EMS	0.7
	MATH 5810 or ECEL 5815	Ratnl Num & Proportional Rel for EMS	0.7
	MATH 5820 or ECEL 5825	Algebraic Reasoning for EMS	0.7
	MATH 5830 or ECEL 5835	Geom & Measurement for EMS	0.7
	MATH 5840 or ECEL 5840	Data and Probability for EMS	0.7
c. Curriculum trajectories, materials, standards and methods for aligning curriculum systems	MATH 5800 or ECEL 5805	Number & Operations for EMS	0.3
	MATH 5810 or ECEL 5815	Ratnl Num & Proportional Rel for EMS	0.3
	MATH 5820 or ECEL 5825	Algebraic Reasoning for EMS	0.3
	MATH 5830 or ECEL 5835	Geom & Measurement for EMS	0.3
	MATH 5840 or ECEL 5840	Data and Probability for EMS	0.3
d. Evaluation of mathematical abilities and achievement including formal and informal diagnostic procedures and in prescriptive instruction	MATH 5800 or ECEL 5805	Number & Operations for EMS	0.5
	MATH 5810 or ECEL 5815	Ratnl Num & Proportional Rel for EMS	0.5
	MATH 5820 or ECEL 5825	Algebraic Reasoning for EMS	0.5
	MATH 5830 or ECEL 5835	Geom & Measurement for EMS	0.5
	MATH 5840 or ECEL 5840	Data and Probability for EMS	0.5
<b>3. Foundations of Leadership</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Effective communication strategies within and outside school	ECEL 5855	Foundations of Mathematical Leadership for Elementary Mathematics Specialists Mathematical Leadership for Elementary Mathematics Specialists: Influencing and Facilitating Improvement	1.0
	ECEL 5860		0.5
b. Professional development expertise ability to plan, develop, implement and evaluate learning environments for teachers	ECEL 5855	Foundations of Mathematical Leadership for Elementary Mathematics Specialists Mathematical Leadership for Elementary Mathematics Specialists: Influencing and Facilitating Improvement	1.0
	ECEL 5860		0.5
c. Ability to establish and nurture professional communities of learners-students, parents, and educators	ECEL 5860	Mathematical Leadership for Elementary Mathematics Specialists: Influencing and Facilitating Improvement	1.0
d. Informed about and contribute to policy and professional organization work related to teaching and learning mathematics	ECEL 5860	Mathematical Leadership for Elementary Mathematics Specialists: Influencing and Facilitating Improvement	1.0
<b>4. Culminating Clinical Experience (Three semester hours of experience working with a full range of students and educators in various professional development settings)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
	ECEL 5800	Internship in Number & Op for EMS	1.0
	ECEL 5810	Internship in Ratnl Num & Prop Rel for EMS	1.0
	ECEL 5820	Internship in Algebraic Reas for EMS	1.0
	ECEL 5830	Internship in Geom & Meas for EMS	1.0
<b>Professional Requirements - Total Semester Hours</b>			<b>24.0</b>

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