



**MATHEMATICS, GRADES 9-12**

EDUCATOR PREPARATION PROGRAM NAME <b>MISSOURI STATE UNIVERSITY</b>	EDUCATOR PREPARATION PROGRAM CODE <b>119119</b>
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**INSTRUCTIONS**

Please complete Educator Preparation Program (EPP) Name & EPP Code above.

**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)

**A. Professional Requirements (Minimum of 26 semester hours)**

1. Content Planning and Delivery			
	Course Number	Course Title	Semester Hours
a. Curriculum and Instructional Planning	SEC302	General Methods of Instruction in the Middle and Secondary Schools	1(3)
b. Instructional Strategies and Techniques in Content Area Specialty	MTH409	Teaching and Learning of Mathematics I	2(3)
	MTH411	Teaching and Learning of Mathematics III	3
c. Assessment, Student Data, and Data-Based Decision-Making	MTH409	Teaching and Learning of Mathematics I	1(3)
	MTH410	Teaching and Learning of Mathematics II	1(3)
d. Strategies for Content Literacy	RDG474 or RDG710	Reading and Writing in the Content Fields or Content Area Literacy	0(3)
e. Critical Thinking and Problem Solving	SEC302	General Methods of Instruction in the Middle and Secondary Schools	.5(3)
	EDC350	School and Society	1.5(3)
f. English Language Learning	RDG474 or RDG710	Reading and Writing in the Content Fields or Content Area Literacy	0(3)
	RDG640	Analysis and Correction of Difficulties in Literacy	0(3)
	or RDG574/624	or Analysis and Correction of Difficulties in Adolescent Literacy	
2. Individual Student Needs			
	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PSY360 or PSY710	Educational Psychology or Psychology of Education	1.5(3)
b. Psychology/Education of the Exceptional Child	SPE340	Educational Alternative for Exceptional Students	2
	or SPE715	or Foundations in Special Education	3
c. Differentiated Learning	SEC302	General Methods of Instruction in the Middle and Secondary Schools	.5(3)
	RDG474 or RDG710	Reading and Writing in the Content Fields or Content Area Literacy	0(3)
	RDG640	Analysis and Correction of Difficulties in Literacy	0(3)
	or RDG574/624	or Analysis and Correction of Difficulties in Adolescent Literacy	
d. Classroom Management	MTH410	Teaching and Learning of Mathematics I	1(3)
e. Cultural Diversity	EDC345	Introduction to Multicultural Education and Diversity	3
f. Educational Psychology	PSY360 or PSY710	Educational Psychology or Psychology of Education	1.5(3)
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	RDG474 or RDG710	Reading and Writing in the Content Fields or Content Area Literacy	0(3)

b. Legal/Ethical Aspects of Teaching	EDC350 MTH493  or MTH492  MTH494	School and Society Supervised Teaching (Secondary Mathematics) or Seminar in Supervised Teaching (Secondary Mathematics) Supervised Teaching (Secondary Mathematics)	1.5(3) 0(6)  0(2)  0(10)	
<b>4. Secondary Literacy (Minimum of six semester hours)</b>				
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>	
a. Reading and Writing in the Content Area	RDG474 or RDG710	Reading and Writing in the Content Fields or Content Area Literacy	3	
b. Instructional Interventions for Students with Reading Deficits	RDG640  or RDG574/624	Analysis and Correction of Difficulties in Literacy or Analysis and Correction of Difficulties in Adolescent Literacy	3	
<b>Professional Requirements - Total Semester Hours</b>			<b>27-28</b>	
<b>B. Field and Clinical Experiences (Minimum of ten semester hours)</b>				
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>	
1. Early Field Experiences (Minimum of one semester hour with a minimum of 30 clock hours)	SEC302	General Methods of Instruction in the Middle and Secondary Schools	1(3)	
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	MTH410	Teaching and Learning of Mathematics II	1(3)	
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	MTH493	Supervised Teaching (Secondary Mathematics)	6	
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	OR	OR		
	MTH492	Seminar in Supervised Teaching (Secondary Mathematics)	2	
	MTH494	Supervised Teaching (Secondary Mathematics)	10	
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>14</b>	
<b>C. Mathematics Content Knowledge Area (Minimum of 36 semester hours)</b>				
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>	
1. Calculus and Analytical Geometry (nine semester hours)	MTH261	Analytic Geometry and Calculus I	5	
	MTH280	Analytic Geometry and Calculus II	5	
2. Algebraic Structures (three semester hours)	MTH315	Algebraic Structures	3	
3. Geometry (three semester hours)	MTH460	College Geometry	3	
4. Computer Science (three semester hours)	CSC121	Introduction to Basic Programming	3	
	or CSC125	or Introduction to C++ Programming	4	
	or CSC130	or The World of Computer Science	3	
5. Electives from the above coursework (six semester hours)	Choose two (2)	Choose two (2)		
	MTH503	Advanced Calculus I	3	
	MTH567	Introduction to Non-Euclidean Geometry	3	
	MTH510	High School Mathematics from an Advanced Perspective	3	
6. Additional Mathematics coursework – Minimum of 12 semester hours to include at least three of the following areas of Mathematics:	*MTH532	Introduction to Abstract Algebra	3	
	a. History of Mathematics (three semester hours)	MTH575	History of Mathematics	3
	b. Structure of the Real Number System (three semester hours)	*MTH532	Introduction to Abstract Algebra	3
	c. Number Theory (three semester hours)	MTH536	Theory of Numbers	3
	d. Completion of Calculus Sequence (three semester hours)	MTH302	Multivariate Calculus	3
	e. Probability and Statistics (3 semester hours)	MTH345	Statistics for Science and Engineers	3
		or MTH540	or Statistical Theory I	3
		or MTH340	or Statistical Methods	3
		or MTH343	or Foundations of Prob. and Stat. for Teachers	3
		or MTH545	or Applied Statistics	3
f. Computer Science (three semester hours)	n/a			
g. Linear Algebra (three semester hours)	MTH333	Linear Algebra I	3	
<b>*MTH532 cannot be counted in both C.5. and C.6.b.</b>				
<b>Content Knowledge Area-Total Semester Hours</b>			<b>43-44</b>	

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