



MATHEMATICS, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME MISSOURI SOUTHERN STATE UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 143143
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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 on or before the date established in the Transition Plan.

QUESTIONS: Contact Educator Preparation, 573/751-1668 or 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	EDUC 329 EDUC 339	Pedagogical Theory, Methods, and Practices Teaching Mathematics in Secondary School	3 2.5
b. Instructional Strategies and Techniques in Content Area Specialty	EDUC 321 EDUC 339	Microteaching Teaching Mathematics in Secondary School	1
c. Assessment, Student Data, and Data-Based Decision-Making	EDUC 329 EDUC 339	Pedagogical Theory, Methods, and Practices Teaching Mathematics in Secondary School	
d. Strategies for Content Literacy	EDUC 422	Content Area Literacy I: Secondary/ Middle	
e. Critical Thinking and Problem Solving	EDUC 329 EDUC 339	Pedagogical Theory, Methods, and Practices Teaching Mathematics in Secondary School	
f. English Language Learning	EDUC 380 or EDUC 480	Second Language Acquisition or Instructional Techniques for Teaching English Language Learners	3
2. Individual Student Needs			
	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PSY 310	Educational Psychology	
b. Psychology/Education of the Exceptional Child	EDUC 302	The Exceptional Child	2
c. Differentiated Learning	EDUC 329 EDUC 339	Pedagogical Theory, Methods, and Practices Teaching Mathematics in Secondary School	
d. Classroom Management	EDUC 423	Classroom Management	2.5
e. Cultural Diversity	EDUC 280	Education in a Global Society	2
f. Educational Psychology	PSY 310	Educational Psychology	3
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDUC 432	Critical Issues in Education	2
b. Legal/Ethical Aspects of Teaching	EDUC 432	Critical Issues in Education	
4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	EDUC 422	Content Area Literacy I: Secondary/ Middle	3
b. Instructional Interventions for Students with Reading Deficits	EDUC 424	Content Area Literacy II: Secondary/ Middle	3
Professional Requirements - Total Semester Hours			27

B. Field and Clinical Experiences (Minimum of ten semester hours)			
	Course Number	Course Title	Semester Hours
1. Early Field Experiences (Minimum of one semester hour with a minimum of 30 clock hours)	EDUC 280	Education in a Global Society	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDUC 329 EDUC 339 or EDUC 423	Pedagogical Theory Methods, and Practices Teaching Mathematics in Secondary School or Classroom and Behavior Management	1 .5
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDUC 462	Student Teaching- Secondary	10
Field and Clinical Experiences - Total Semester Hours			12.5
C. Mathematics Content Knowledge Area (Minimum of 36 semester hours)			
	Course Number	Course Title	Semester Hours
1. Calculus and Analytical Geometry (nine semester hours)	MATH 150 MATH 250	Calculus/Analytic Geometry I Calculus/Analytic Geometry II	5 5/4
2. Algebraic Structures (three semester hours)	MATH 342	Abstract Algebra	3
3. Geometry (three semester hours)	MATH 332	Geometry	3
4. Computer Science (three semester hours)	CIS 110	Programming I	3
5. Electives from the above coursework (six semester hours)	MATH 340	Discrete Math	3
	Math 350 Or	Introduction to Numerical Analysis	3
	MATH 371 Or MATH 452	Introduction to Operations Research Or Math Models	
6. Additional Mathematics coursework – Minimum of 12 semester hours to include at least three of the following areas of Mathematics:			
a. History of Mathematics (three semester hours)			
b. Structure of the Real Number System (three semester hours)			
c. Number Theory (three semester hours)	MATH 300	Introduction to Math Thought	3
d. Completion of Calculus Sequence (three semester hours)	MATH 260	Calculus/Analytic Geometry III	3/4
e. Probability and Statistics (three semester hours)	MATH 361	Probability and Statistics 1	3
f. Computer Science (three semester hours)	CIS 210	Programming II	3
g. Linear Algebra (three semester hours)	MATH 351	Linear Algebra	3
Content Knowledge Area - Total Semester Hours			40

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