



MATHEMATICS, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME MISSOURI VALLEY COLLEGE	EDUCATOR PREPARATION PROGRAM CODE 514772
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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 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	ED 100	INTRODUCTION TO TEACHING	3
b. Instructional Strategies and Techniques in Content Area Specialty	ED 442	TECHNIQUES OF TEACHING MATHEMATICS	2
c. Assessment, Student Data, and Data-Based Decision-Making	ED 335	CLASSROOM ASSESSMENT	2
d. Strategies for Content Literacy	ED 322	TEACHING READING IN THE CONTENT AREAS	0 (3)
e. Critical Thinking and Problem Solving	ED 300	INSTRUCTIONAL METHODOLOGY	1 (3)
f. English Language Learning	ED 300	INSTRUCTIONAL METHODOLOGY	1 (3)

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PY 270	CHILD AND ADOLESCENT PSYCHOLOGY	3
b. Psychology/Education of the Exceptional Child	ED 260	EDUCATION OF THE EXCEPTIONAL CHILD	2 (3)
c. Differentiated Learning	ED 300	INSTRUCTIONAL METHODOLOGY	2 (3)
d. Classroom Management	ED 307	CLASSROOM ENVIRONMENT	2
e. Cultural Diversity	ED 300	INSTRUCTIONAL METHODOLOGY	1 (3)
f. Educational Psychology	ED 311	EDUCATIONAL PSYCHOLOGY	3

3. Schools and the Teaching Profession

	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	ED 352	SECONDARY CLINICAL EXPERIENCE	1 (2)
b. Legal/Ethical Aspects of Teaching	ED 415	STUDENT TEACHING SEMINAR	1

4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	ED 322	TEACHING READING IN THE CONTENT AREAS	3
b. Instructional Interventions for Students with Reading Deficits	ED 334	DIAGNOSIS AND REMEDIATION OF READING DIFFICULTIES	3
Professional Requirements - Total Semester Hours			30
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)	ED 191	SECONDARY PRACTICUM I	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	ED 352	SECONDARY CLINICAL EXPERIENCE	1 (2)
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	ED 491	STUDENT TEACHING IN SECONDARY SCHOOLS	12
Field and Clinical Experiences - Total Semester Hours			14
C. Mathematics Content Knowledge Area (Minimum of 36 semester hours)			
	Course Number	Course Title	Semester Hours
1. Calculus and Analytical Geometry (nine semester hours)	MA 190	ANALYTIC GEOMETRY AND CALCULUS I	5
	MA 240	ANALYTIC GEOMETRY AND CALCULUS II	4 (5)
2. Algebraic Structures (three semester hours)	MA 420	MODERN ABSTRACT ALGEBRA	3
3. Geometry (three semester hours)	MA 380	FOUNDATIONS OF GEOMETRY	3
4. Computer Science (three semester hours)	<i>ONE COURSE FROM:</i> CS 110	<i>ONE COURSE FROM:</i> INTRODUCTION TO COMPUTER INFORMATION SYSTEMS	<i>ONE COURSE FROM:</i> 3
	CS 120	INTRODUCTION TO PROGRAMMING	3
5. Electives from the above coursework (six semester hours)	MA 240	ANALYTIC GEOMETRY AND CALCULUS II	1 (5)
	MA 315	ANALYTIC GEOMETRY AND CALCULUS III	5
6. Additional Mathematics coursework – Minimum of 12 semester hours to include at least three of the following areas of Mathematics:	Students must also complete a minimum of 18 additional semester hours from the following courses. *MA 485 IS REQUIRED.		
a. History of Mathematics (three semester hours)	MA 485*	SENIOR SEMINAR	3
b. Structure of the Real Number System (three semester hours)	MA 430	REAL VARIABLES	3
c. Number Theory (three semester hours)	MA 250	INTRODUCTION TO MATHEMATICAL REASONING	3
d. Completion of Calculus Sequence (three semester hours)	MA 340	ORDINARY DIFFERENTIAL EQUATIONS	3
e. Probability and Statistics (three semester hours)	MA 330	PROBABILITY AND STATISTICS	3
f. Computer Science (three semester hours)	-	-	-
g. Linear Algebra (three semester hours)	MA 350	NUMERICAL ANALYSIS	3
	MA 360	LINEAR ALGEBRA	3
Content Knowledge Area - Total Semester Hours			42

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