



MATHEMATICS, GRADES 5-9 - POST-BACCALAUREATE

EDUCATOR PREPARATION PROGRAM NAME Columbia College	EDUCATOR PREPARATION PROGRAM CODE 515712
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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 grouplisted.
- 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 grouplisted.
- 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 45 semester hours)

1. Content Planning and Delivery

	Course Number	Course Title	Semester Hours
a. Curriculum and Instructional Planning	EDUC 505/300 EDUC 360	Instructional Theory Techniques/Techniques of Teaching Teaching Mathematics in Middle and Secondary School	.75 1
b. Instructional Strategies and Techniques in Content Area Specialty	EDUC 505/300 EDUC 360	Instructional Theory Techniques/Techniques of Teaching Teaching Mathematics in Middle and Secondary School	.75 1
c. Assessment, Student Data, and Data-Based Decision-Making	EDUC 580/322	Methods of Effective Academic Evaluation/Educational Measurement and Assessment	3
d. Strategies for Content Literacy	EDUC 516/338	Reading and Writing Across the Curriculum/Content Reading and Writing	0
e. Critical Thinking and Problem Solving	EDUC 505/300 EDUC 375	Instructional Theory of Techniques/Techniques of Teaching Advanced Content Methods	.75 .75
f. English Language Learning	EDUC 542 Or EDUC 600 Or EDUC 520	Law, Ethics, and Education Or Education Seminar for Teacher Candidates Or Methods of Teaching English Learners	0 3

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	EDUC 550, or EDUC 391 and EDUC 392, or EDUC 396	Human Development or Child Psychology and Adolescent Psychology or Child and Adolescent Development	3
b. Psychology/Education of the Exceptional Child	EDUC 525/390	Educating Exceptional Individuals/Education and Psychology of the Exceptional Child	1
c. Differentiated Learning	EDUC 375 EDUC 525/390	Advanced Content Methods Educating Exceptional Individuals/Education and Psychology of the Exceptional Child	.75 1
d. Classroom Management	EDUC 563/311	Management of the Classroom Environment/Classroom and Behavior Management Techniques	1.5
e. Cultural Diversity	EDUC 555/SOCI 270	Development, Gender, and Cultural Differences/ Minority Cultures and Relations	3
f. Educational Psychology	EDUC 560/230	Theories of Learning/Educational Psychology	3

3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDUC 525/390	Educating Exceptional Individuals/Education and Psychology of the Exceptional Child	1
b. Legal/Ethical Aspects of Teaching	EDUC 542/200	Law, Ethics, and Education	3
c. Middle School Philosophy and Organization	EDUC 326	Middle School Methods	3
4. Middle School Literacy (Minimum of 6 semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	EDUC 516/338	Reading and Writing Across the Curriculum/Content Reading and Writing	3
	EDUC 375	Advanced Content Methods	.75
b. Instructional Interventions for Students with Reading Deficits	EDUC 578/376	Adolescent Literacy Theory and Technique/Adolescent Literacy	3
5. Content Knowledge for Teaching (Minimum of 24 semester hours with appropriate distribution in one of the following certificate subject areas)			
	Course Number	Course Title	Semester Hours
a. Agricultural Education			
b. Business Education			
c. Technology and Engineering			
d. Language Arts			
e. Mathematics	MATH/EDUC 102	Teaching and Learning Elementary Mathematics from an Advanced Perspective	3
	MATH 150	College Algebra	3
	MATH 155	Algebraic Reasoning for Elementary and Middle School Teachers	3
	MATH 165	Geometric Reasoning for Elementary and Middle School Teachers	3
	MATH 201	Calculus and Analytic Geometry I	5
	MATH 250	Statistics I	3
	Choose two courses from:	Choose two courses from:	6
	MATH 110	Quantitative Reasoning	
	MATH 170	Finite Mathematics	
	MATH 180	Precalculus	
	MATH 215	Differential Calculus	
	MATH 222	Calculus and Analytic Geometry	
	MATH 225	Discrete Mathematics I	
	MATH 226	Integral Calculus I	
	MATH 235	Integral Calculus II	
	MATH 251	Statistics II	
	MATH 300	Multivariate Calculus	
	MATH 303	Linear Algebra	
	MATH 304	Introduction to Abstract Algebra	
	MATH 305	Number Theory	
MATH 325	Discrete Mathematics II		
MATH 330	History of Mathematics		
MATH 331	Foundations of Geometry		
MATH 338	Mathematical Statistics and Probability		
MATH 340	Introduction to Probability Theory Introduction to Automata Theory		
MATH 362	Languages and Computation		
MATH 370	Differential Equations		
MATH 371	Introduction to Complex Variables		
MATH 380	Advanced Calculus		
MATH 399	Math Teaching Internship		
MATH 451	Introduction to Cryptography and Computer Security		
MATH 493	Senior Seminar in Mathematics for Teachers,		
MATH 494	Senior Seminar in Mathematics		
f. Science			
g. Social Science			
h. Speech/Theatre			
Professional Requirements - Total Semester Hours			59 - 62

B. Field and Clinical Experiences (Minimum of 10 semester hours)			
	Course Number	Course Title	Semester Hours
1. Early Field Experiences (Minimum of 1 semester hour with a minimum of 30 clock hours)	EDUC 505/300	Instructional Theory Techniques/Techniques of Teaching	.75
	EDUC 563/311	Management of the Classroom Environment/Classroom and Behavior Management Techniques	1.5
2. Mid-Level Field Experiences (Minimum of 1 semester hour with a minimum of 45 clock hours)	EDUC 516/338	Reading and Writing Across the Curriculum/Content Reading and Writing	0
	EDUC 360	Teaching Mathematics in Middle and Secondary School	1
	EDUC 375	Advanced Content Methods	.75
3. Culminating Clinical Experiences (Minimum of 8 semester hours with a minimum of 12 weeks in 1 placement)	EDUC 698	Graduating Student Teaching	9
	Or EDUC 424	Or Student Teaching in the Middle School	
	Or EDUC 425	Or Undergraduate Student Teaching	
Field and Clinical Experiences - Total Semester Hours			13

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