



MATHEMATICS, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME WILLIAM JEWELL COLLEGE	EDUCATOR PREPARATION PROGRAM CODE 062273
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***Courses marked with an asterisk address part of the competency, but the primary focus of the course is in another competency. Therefore, we list the course in multiple competencies but credit is only denoted in one to three focus areas.**

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	EDU 220	High Leverage Teaching Strategies (4 credit course)	1.00
	Or	OR	
	EDU 216	Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i>	
	EDU 275	AND Instructional Design & Assessment (4 credit course)	2.00
	EDU 501	Differentiated Instruction (4 credit course)	*
b. Instructional Strategies and Techniques in Content Area Specialty	EDU 220	High Leverage Teaching Strategies (4 credit course)	1.00
	or	OR	
	EDU 216	Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i>	
	EDU 280	AND Disciplinary Literacy & Methods of Instruction (5 credit course)	1.00
c. Assessment, Student Data, and Data-Based Decision-Making	EDU 275	Instructional Design & Assessment (4 credit course)	2.00
	EDU 501	Differentiated Instruction (4 credit course)	*
d. Strategies for Content Literacy	EDU 280	Disciplinary Literacy & Methods of Instruction (5 credit course)	1.00
	EDU 308	Literacy Interventions in the Secondary Classroom (4 credit course)	1.00
e. Critical Thinking and Problem Solving	EDU 220	High Leverage Teaching Strategies (4 credit course)	1.00
	or	OR	
	EDU 216	Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i>	
		AND	
	EDU 275	Instructional Design & Assessment (4 credit course)	*
	EDU 280	Disciplinary Literacy & Methods of Instruction (5 credit course)	*

f. English Language Learning	EDU 206 or EDU 234 EDU 501	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i> AND Differentiated Instruction (4 credit course)	* 1.00
2. Individual Student Needs			
	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	EDU 206 or EDU 234	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i>	1.00
b. Psychology/Education of the Exceptional Child	EDU 206 or EDU 234	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i>	2.00
c. Differentiated Learning	EDU 501	Differentiated Instruction (4 credit course)	2.00
d. Classroom Management	EDU 220 or EDU 216 EDU 501	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Differentiated Instruction (4 credit course)	1.00 1.00
e. Cultural Diversity	CTI 200 or CTI 150 or CTI 219 (also listed as COM 358)	U.S. Pluralism (4 credit course) or Identity & Society (2 credit course) or Intercultural Communication (4 credit course)	2.00-4.00
f. Educational Psychology	EDU 206 or EDU 234 EDU 220 or EDU 216 EDU 501	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i> AND High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Differentiated Instruction (4 credit course)	1.00 * *
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDU 401	Reflective Student Teaching Seminar (4 credit course)	2.00
b. Legal/Ethical Aspects of Teaching	EDU 401	Reflective Student Teaching Seminar (4 credit course)	2.00
4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	EDU 280	Disciplinary Literacy & Methods of Instruction (5 credit course)	3.00
b. Instructional Interventions for Students with Reading Deficits	EDU 308	Literacy Interventions in the Secondary Classroom (4 credit course)	3.00
Professional Requirements - Total Semester Hours			31.00-33.00

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)	EDU 212	Clinical Fieldwork I	1.00
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDU 213	Clinical Fieldwork II	1.00
	EDU 214	Clinical Fieldwork III	1.00
	EDU 311	Clinical Fieldwork IV	1.00
	EDU 315	Clinical Fieldwork V	1.00
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDU 420	Student Teaching in Secondary School I &	6.00
	EDU 421	Student Teaching in Secondary School II	6.00
Field and Clinical Experiences -Total Semester Hours			17.00
C. Mathematics Content Knowledge Area (Minimum of 36 semester hours)			
	Course Number	Course Title	Semester Hours
1. Calculus and Analytical Geometry (nine semester hours)	CTI 109 or MAT 109	Calculus I (4 credit course)	3.00-4.00
	MAT 200	Calculus II (4 credit course)	3.00-4.00
	MAT 201	Calculus III (4 credit course)	3.00-4.00
2. Algebraic Structures (three semester hours)	MAT 347	Abstract Algebra (4 credit course)	3.00-4.00
3. Geometry (three semester hours)	MAT 301	College Geometry (4 credit course)	3.00-4.00
4. Computer Science (three semester hours)	MAT 190 Or DTS 150 Or DTS 190	Introductions to Computer Science (4 credit course)	3.00-4.00
		Intro to Data Science	
		Intro to Programming	
5. Electives from the above coursework (six semester hours)	MAT 202 Or MAT 103 Or MAT 107 OR MAT 335 OR MAT 341	Excess credits from above or below plus any from below to equal 6 credits+ Differential Equations (4 credit course)	3.00-4.00
		College Algebra	3.00-4.00
		Precalculus	3.00-4.00
		Numerical Analysis	3.00-4.00
		Real Analysis	3.00-4.00
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)	MAT 320	History of Mathematics	4.00 **
b. Structure of the Real Number System (three semester hours)	MAT 290	Bridge to Advanced Mathematics (required in the major)	4.00
c. Number Theory (three semester hours)			
d. Completion of Calculus Sequence (three semester hours)	MAT 302	Calculus IV	4.00 **
e. Probability and Statistics (three semester hours)	MAT 305 Or DTS 218 Or CTI 105	Introduction to Probability	3.0-4.00 **
		Applied Statistics	3.00-4.00
		Math for the liberal arts	3.00-4.00
f. Computer Science (three semester hours)	DTS 150	Introduction to Data Science (cannot be counted in this section if used above to satisfy required hours in Section 4.)	3.00-4.00
g. Linear Algebra (three semester hours)	MAT 281	Applied Linear Algebra	3.00-4.00**
Content Knowledge Area - Total Semester Hours			36.00-44.00

**Required to take MAT 281 & either MAT 302, MAT 305, or MAT 320

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MO 500-3108 (03/15)