



MATHEMATICS, GRADES 9-12 – POST-BACCALAUREATE

EDUCATOR PREPARATION PROGRAM NAME NORTHWEST MISSOURI STATE UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 118118
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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	17-580	Methods in Secondary School Mathematics	1
b. Instructional Strategies and Techniques in Content Area Specialty	17-580	Methods in Secondary School Mathematics	1
c. Assessment, Student Data, and Data-Based Decision-Making	17-580	Methods in Secondary School Mathematics	1
d. Strategies for Content Literacy	62-553 or 62-353	Reading in the Secondary School or Reading in the Content Area	
e. Critical Thinking and Problem Solving	61-615 61-617 Or 61-650	Organizing for Learning Organizing for Learning II Or Improvement of Teaching	1 1.5 .5
f. English Language Learning	61-521 or 61-650 or 61-569	Classroom Management Seminar or Improvement of Teaching or Multiculturalism in Education	.5 .75
2. Individual Student Needs			
	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	08-322 or 61-614	Adolescent Psychology or Introduction to Teaching	2 or 1
b. Psychology/Education of the Exceptional Child	62-371 or 62-641 or 61-616	Introduction to Special Education or Education of the Exceptional Child or Teaching Strategies	1 or 2 or 2
c. Differentiated Learning	62-371 or 62-641 or 61-614 or 61-569	Introduction to Special Education or Education of Exceptional Child or Introduction to Teaching or Multiculturalism in Education	.5 or 1 or 1 .75
d. Classroom Management	61-520 or 61-650 or 61-615 AND 61-617	Techniques of Classroom Management and Discipline or Improvement of Teaching or Organizing for Learning AND Organizing for Learning II	1.5 Or .5 or 1 and 1
e. Cultural Diversity	61-569	Multiculturalism in Education	1.5

f. Educational Psychology	61-614 OR 08-303 OR 08-299	Introduction to Teaching OR Educational Psychology OR Educational Psychology	1 or 3
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	61-520 or 61-650 or 61-615	Techniques of Classroom Management and Discipline or Improvement of Teaching or Organizing for Learning	.5 1
b. Legal/Ethical Aspects of Teaching	61-521 or 61-650 or 61-617	Classroom Management Seminar or Improvement of Teaching or Organizing for Learning II	.5
4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	62-553 OR 62-353	Reading Program in Secondary School OR Teaching Reading in the Content Areas	3
b. Instructional Interventions for Students with Reading Deficits	62-654 Or 62-601 or- 61-649	Analysis and Correction of Reading Difficulties or Literacy-Based Assessment and Analysis or Issues in Education	3
Professional Requirements - Total Semester Hours			26
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)	61-260 or 61-614	Practicum I or Introduction to Teaching	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	61-360 or 61-651 or 61-616	Practicum II or Seminar and Practicum in Teaching or Teaching Strategies	1 or 3 or 1
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	61-472 or 61-690	Directed Teaching in k-12 School or Internship in Teaching	8 8
Field and Clinical Experiences - Total Semester Hours			10-13
C. Mathematics Content Knowledge Area (Minimum of 36 semester hours)			
	Course Number	Course Title	Semester Hours
1. Calculus and Analytical Geometry (nine semester hours)	17-120 17-121	Calculus I Calculus II	4 5
2. Algebraic Structures (three semester hours)	17-415 or 17-415 or 17-416	Modern Algebra Modern Algebra-Rings (Introduction to Abstract Algebra) or Modern Algebra-Groups	3 or 3 or 3
3. Geometry (three semester hours)	17-351 or 17-625	College Geometry or Analytic Geometry	3
4. Computer Science (three semester hours)	44-149 or 44-141 or 17-145	Scientific Computing or Computer Programming I or Computational Mathematics	3 or 3 or 3
5. Electives from the above coursework (six semester hours)	17-390 and either 44-141 or 44-241 or 17-321 or 17-361 or 17-215 or 17-319	Electives cannot be duplicated coursework from other categories: Transition to Proofs (Logic of Exact Sciences) and either Computer Programming I or Computer Programming II or Calculus III or Differential Equations Discrete Mathematics Graph Theory	3 and 3 or 3 or 3 or 3 or 3 or 3

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)	17-421 or 17-520 or 17-643	Introduction to Analysis (Intermediate Analysis) and/or Applied Analysis or Principles of Math, Analysis and Applications	3 or 3
c. Number Theory (three semester hours)	17-518 or 17-618	Number Theory or Number Theory with Applications	3
d. Completion of Calculus Sequence (three semester hours)	17-321 or 17-361	Calculus III (Multivariate Calculus) or Differential Equations	4 or 3
e. Probability and Statistics (three semester hours)	17-114 or 17-230 or 17-316 or 17-318 or 17-333 or 17-356 or 17-366 or 17-531 or 17-535 or 17-536 or 17-610 or 17-611 or 17-635 or 17-637 or 17-639	General Statistics I Probability and Statistics Linear Statistical Models (I) Linear Statistical Models II Probability and Statistics Data Mining Statistical Machine Learning Applied Time Series Probability Theory Statistical Inference Elementary Statistical Concepts Data Mining with Applications to Business and Science Computer Methods in Statistics I Computer Methods in Statistics II Data Analysis	3 or 3 or 3 or 3 or 3 or 3 or 3 or 2 or 3
f. Computer Science (three semester hours)	17-280 or 17-141 or 17-241	Methods in Teaching with Technology or Computer Programming I or Computer Programming II	3 or 3 or 3
g. Linear Algebra (three semester hours)	17-311 or 17-511	Linear Algebra (Elementary Linear Algebra) or Applied Linear Algebra	3 or 3
Content Knowledge Area - Total Semester Hours			36

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