



MATHEMATICS, GRADES 9-12

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	62-114 62-218	Introduction to Curriculum and Instruction Designing Integrated Curriculum (Part II)	
b. Instructional Strategies and Techniques in Content Area Specialty	62-215 62-218 17-580	Designing Integrated Curriculum (Part I) Designing Integrated Curriculum (Part II) Methods in Secondary School Mathematics	3
c. Assessment, Student Data, and Data-Based Decision-Making	62-115 17-580	Principles of Assessment Methods in Secondary School Mathematics	1
d. Strategies for Content Literacy	62-230	Adolescent Literacy	
e. Critical Thinking and Problem Solving	62-114 62-118 62-119 62-321	Introduction to Curriculum and Instruction Teaching is Communication Professional Learning Community III Designing Intervention	1 .5
f. English Language Learning	62-117 62-118 61-569 62-321	Inclusive Classrooms and Positive Learning Environments Teaching is Communication Multiculturalism in Education Designing Intervention	1.5
2. Individual Student Needs			
	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	08-322	Adolescent Psychology	2
b. Psychology/Education of the Exceptional Child	62-117	Inclusive Classrooms and Positive Learning Environments	1
	62-118 62-119 62-321	Teaching is Communication Professional Learning Communities III Designing Intervention and Assessment	1
c. Differentiated Learning	62-119 62-321	Professional Learning Community II Designing Intervention	.5

d. Classroom Management	62-117 62-118 62-119 61-270	Inclusive Classrooms and Positive Learning Environments Teaching is Communication Professional Learning Communities III Classroom Management Strategies	
e. Cultural Diversity	62-114 62-117 62-118 61-569	Introduction to Curriculum and Instruction Inclusive Classrooms and Positive Learning Environments Teaching is Communication Multiculturalism in Education	1.5
f. Educational Psychology	08-299	Educational Psychology	3
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	62-115 62-117 62-118 62-119 61/62-325 61-432	Principles of Assessment Inclusive Classrooms and Positive Learning Environments Teaching is Communication Professional Learning Community III Professional Learning Communities VI Professional Education Capstone	1
b. Legal/Ethical Aspects of Teaching	62-115 62-118 62-119 61-432	Principles of Assessment Teaching is Communication Professional Learning Community III Professional Education Capstone	1
4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	62-119 62-215 62-217 62-230 62-218 62-219	Professional Learning Community III Designing Integrated Curriculum (Part I) Professional Learning Community IV Adolescent Literacy Designing Integrated Curriculum (Part II) Professional Learning Communities V	1 1 1 1 1
b. Instructional Interventions for Students with Reading Deficits	62-322 or 62-323 61/62-325	Theory and Technique of Literacy Assessment and Intervention Professional Learning Communities VI	1 1
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)	62-218 62-114 62-115 62-215 62-230 61-270 62-117 62-118 62-119	Designing Integrated Curriculum in Middle and Secondary School Introduction to Curriculum & Instruction Principles of Assessment Designing Integrated Middle and Secondary Curriculum 1 Adolescent Literacy Classroom Management Strategies Inclusive Classrooms and Positive Learning Environments Teaching is Communication Professional Learning Community III	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	61-431	Secondary School Practicum	1
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	61-472	Directed Teaching in Secondary School	8
Field and Clinical Experiences - Total Semester Hours			10
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	College 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	Introduction to Analysis (Intermediate Analysis) and/or Applied Analysis	3 or 3
c. Number Theory (three semester hours)	17-518	Number Theory	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	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	3 or 3 or 3 or 3 or 3 or 3 or 3 or 3 or 2 or 3 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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