



MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
OFFICE OF EDUCATOR QUALITY – EDUCATOR PREPARATION

PHYSICS, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME
NORTHWEST MISSOURI STATE UNIVERSITY

EDUCATOR PREPARATION PROGRAM CODE
118118

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	28-580 61-145 or 44-130 or 62-130	Methods in Secondary School Science Information and Educational Technology/Digital Literacy or Computers & Information Technology/Digital Literacy or Educational Computing & Technology/Digital Literacy	.5 1
b. Instructional Strategies and Techniques in Content Area Specialty	28-580	Methods in Secondary School Science	1.5
c. Assessment, Student Data, and Data-Based Decision-Making	28-580 61-145 or 44-130 or 62-130	Methods in Secondary School Science Information and Educational Technology/Digital Literacy or Computers & Information Technology/Digital Literacy or Educational Computing & Technology/Digital Literacy	.5 1
d. Strategies for Content Literacy	28-580 62-353	Methods in Secondary School Science Reading in Content Areas	.5
e. Critical Thinking and Problem Solving	61-145 or 44-130 or 62-130 29-102	Information and Educational Technology/Digital Literacy or Computers & Information Technology/Digital Literacy or Educational Computing & Technology/Digital Literacy Fundamentals of Oral Communication	1 3
f. English Language Learning	61-260 61-461 61-569 61-521 61-472	Practicum I School and Society Multiculturalism Classroom Management Seminar Directed Student Teaching	1 .5 1

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	62-371	Introduction to Special Education	1
c. Differentiated Learning	62-371 61-569	Introduction to Special Education Multiculturalism	1 1
d. Classroom Management	61-520	Techniques of Classroom Management and Discipline	1
e. Cultural Diversity	61-569	Multiculturalism	1

f. Educational Psychology	08-299/08-303	Education Psychology	3
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	61-520	Techniques of Classroom Management and Discipline	.5
b. Legal/Ethical Aspects of Teaching	61-521	Classroom Management Seminar	.5

4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	62-353	Teaching Reading in the Content Area	2
b. Instructional Interventions for Students with Reading Deficits	61-461	School and Society	2
	61-462	School and Society Seminar	1
	62-371	Introduction to Special Education	1
Professional Requirements - Total Semester Hours			29

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	Practicum I	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	61-360	Practicum II	1
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	61-472	Directed Teaching in 9-12 School	9
Field and Clinical Experiences - Total Semester Hours			11

C. Physics Content Knowledge Area (Minimum of 35 semester hours)			
	Course Number	Course Title	Semester Hours
1. History/Philosophy of Science and Technology (three semester hours)	28-550	History of Science and Technology	3
2. Physics Coursework – Minimum of 20 semester hours which must include:			
a. Mechanics	25-120/121	Fundamentals Of Classical Physics I & Laboratory	5
b. Electricity and Magnetism	25-230	Fundamentals Of Classical Physics II	4
c. Heat, Sound, and Light	25-231	Fundamentals Of Classical Physics II Laboratory	1
d. Atomic or Modern Physics	25-350/351	Introduction to Modern Physics and Laboratory	4
e. Physics Electives		Electives from courses numbered above 300 (6 hrs)	
	25-320/321	Classical Mechanics I & Laboratory	4
	25-322	Statics	3
	25-330/331	Electricity and Magnetism I	4
	25-332	Electronics & Laboratory	4
	25-352	Modern Physics II	3
	25-360	Quantum Mechanics	3
	25-450/451	Computational Physics and Laboratory	4
25-489	Physics Practicum	1-3	
25-499	Special Investigations in Physics	1-3	
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Chemistry	24-114/115	General Chemistry I and Laboratory	4
b. Biology	04-106/107	Principles of Biology	4
	Or 04-102/103	or General Biology and Laboratory	or 4
c. Earth Science	27-114/115	General Earth Science and Lab or	4 or
	27-110/111	General Geology	4
	Or 61-554-83	or Dynamic Earth Systems	or 3

d. Environmental Science	04-420 04-376 or 27-360 or 61-554-92	Environmental Issues OR Basic Ecology or Environmental Geology or Water Environmental Science	4 or 4 or 4 or 3
Content Knowledge Area - Total Semester Hours			37

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