



PHYSICS, GRADES 9-12 – POST-BACCALAUREATE

EDUCATOR PREPARATION PROGRAM NAME NORTHWEST MISSOURI STATE UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 118118
--	---

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	28-580	Methods in Secondary School Science	1
b.	Instructional Strategies and Techniques in Content Area Specialty	28-580	Methods in Secondary School Science	1
c.	Assessment, Student Data, and Data-Based Decision-Making	28-580	Methods in Secondary School Science	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 61-569	Introduction to Special Education or Education of Exceptional Child or Introduction to Teaching Multiculturalism	.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 (old course number) OR Educational Psychology (new course number)	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. 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 hr)	
	25- 320/321	Classical Mechanics I & Laboratory Statics	4 3
	25-322	Electricity and Magnetism I Electronics & Laboratory	4 4
	25- 330/331	Modern Physics II Quantum Mechanics	4 3
	25-332	Computational Physics and Laboratory	3 4
	25-360		1-3
	25- 450/451	Special Investigations in Physics	1-3
	25-489		
	25-499		
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 Or 04- 102/103	Principles of Biology or General Biology and Laboratory	4 or 4

c. Earth Science	27-114/115 27-110/111 Or 61-554-83	General Earth Science and Lab or General Geology or Dynamic Earth Systems	4 or 4 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

The Department of Elementary and Secondary Education does not discriminate on the basis of race, color, religion, gender, national origin, age, or disability in its programs and activities. Inquiries related to Department programs and to the location of services, activities, and facilities that are accessible by persons with disabilities may be directed to the Jefferson State Office Building, Office of the General Counsel, Coordinator – Civil Rights Compliance (Title VI/Title IX/504/ADA/Age Act), 6th Floor, 205 Jefferson Street, P.O. Box 480, Jefferson City, MO 65102-0480; telephone number 573-526-4757 or TTY 800-735-2966 email civilrights@dese.mo.gov.