



PHYSICS, GRADES 9-12 – POST-BACCALAUREATE

EDUCATOR PREPARATION PROGRAM NAME

UNIVERSITY OF CENTRAL MISSOURI

EDUCATOR PREPARATION PROGRAM CODE

121121

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	EDFL 2100 EDFL 5340 STCH 4050	Introduction to the Teaching Profession Contemporary Instruction: Theory & Practice Science Teaching Methods	0.5 OR 1.0 OR 0.5
b. Instructional Strategies and Techniques in Content Area Specialty	STCH 4050	Science Teaching Methods	3.0
c. Assessment, Student Data, and Data-Based Decision-Making	EDFL 2100 EDFL 4974 EDFL 4300 EDFL 5300	Introduction to the Teaching Profession Content Specific Assessment Educational Measurement and Evaluation Advanced Assessment & Evaluation	1.0 AND 1.0 2.0 OR 3.0
d. Strategies for Content Literacy	STCH 4050 EDFL 4210 EDFL 5208	Science Teaching Methods Introduction to Content Area Literacy Content Area Literacy	1.0 0.0 OR 0.0
e. Critical Thinking and Problem Solving	EDFL 2250 STCH 4080 EDFL 5340	Intro to ELL and Culturally Responsive Pedagogy Science Learning and Literacy Contemporary Instruction Theory & Practice	1.0 1.0 OR 1.0
f. English Language Learning	EDFL 2250 STCH 4010	Intro to ELL & Culturally Responsive Pedagogy Exploring First Hand Science Lessons	1.0 0.25

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PSY 2220 PSY 3220 CFD 1220 COUN 5310	Child & Adolescent Psychology OR Life-Span Development OR Child & Adolescent Development OR Development Across the Lifespan	3.0
b. Psychology/Education of the Exceptional Child	EDSP 2100 EDSP 5200	Education of the Exceptional Child Advanced Education of the Exceptional Child	1.5 OR 1.0
c. Differentiated Learning	EDSP 2100 EDSP 5200 STCH 4010 EDFL 2250	Education of the Exceptional Child Advanced Education of the Exceptional Child Exploring First Hand Science Lessons Intro to ELL & Culturally Responsive Pedagogy	1.0 OR 0.5 0.5 0.5
d. Classroom Management	EDFL 4970 EDFL 4973 EDFL 3500 EDFL 5330	Secondary Teaching & Behavioral Management Classroom Management in Content Area Secondary Teaching and Behavior Mgmt Classroom Discipline and Motivation	1.5 AND 1.0 2.0 OR 3.0
e. Cultural Diversity	EDFL 2250 STCH 4010	Intro to ELL & Culturally Responsive Pedagogy Exploring First Hand Science Lessons	0.5 0.25
f. Educational Psychology	EDFL 2240 EDFL 5200	Educational Psychology Advanced Educational Psychology	3.0 OR 3.0

3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDFL 2100 EDFL 5340	Introduction to the Teaching Profession Contemporary Instruction Theory and Practice	1.0 OR 1.0
b. Legal/Ethical Aspects of Teaching	EDFL 2100 EDSP 2100 EDSP 5200	Introduction to the Teaching Profession Education of the Exceptional Child Advanced Education of the Exceptional Child	0.5 OR 0.5 OR 1.5
4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	EDFL 4210 EDFL 4212 EDFL 4972 STCH 4080 EDFL 5208	Introduction to Content Area Literacy Literacy in the Disciplines I Literacy in the Discipline II Science Learning and Literacy Content Area Literacy	1.0 AND 1.0 AND 1.0 OR 2.0 OR 3.0
b. Instructional Interventions for Students with Reading Deficits	EDFL 4210 EDFL 4212 EDFL 4972 EDFL 5210	Introduction to Content Area Literacy Literacy in the Disciplines I Literacy in the Discipline II Assessment of Literacy Development	1.0 AND 1.0 AND 1.0 AND OR 3.0
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)	FLDX 2150 FLDX 3000	Introductory Field Experience Field Experience I in the Content Area	1.0 OR 1.0
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	FLDX 3550 FLDX 4970	Practicum in Secondary Instruction Field Experience II in the Content Area	1.0 OR 1.0
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDFL 5100 FLDX 4468 FLDX 4595 FLDX 4468 FLDX 4595	Internship OR Student Teaching Secondary II Student Teaching Secondary I Student Teaching Secondary II Student Teaching Secondary I	3.0 AND 5.0 OR 5.0 OR 4.0 AND 4.0
Field and Clinical Experiences - Total Semester Hours			10
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)	STCH 3020	Science and Engineering Practices	3.0
2. Physics Coursework – Minimum of 20 semester hours which must include:			
a. Mechanics	(Option 1) PHYS 2121 AND PHYS 2122 – OR (Option 2) PHYS 1101 AND PHYS 1102	University Physics I (5) AND University Physics II (5) – OR College Physics I (4) AND College Physics II (4)	3.9 AND .6 - OR 3.2 AND 0.9
b. Electricity and Magnetism	(Option 1) PHYS 2122 – OR (Option 2) PHYS 1102	University Physics II (5) – OR College Physics II (4)	3.0 - OR 2.0
c. Heat, Sound, and Light	(Option1) PHYS 2121 AND PHYS 2122 – OR (Option 2) PHYS 1101 AND PHYS 1102 AND AND PHYS 4411 OR CHEM 4531 AND CHEM 1132	University Physics I (Heat, 5) AND University Physics II (Sound/Light, 5) – OR College Physics I (Heat/Sound, 4) AND College Physics II (Light, 4) AND Thermodynamics (Heat, 3) – OR Physical Chemistry: Thermodynamics & Kinetics Heat, 4) General Chemistry II	1.1 AND 1.4 - OR 0.8 AND 1.1 3.0 OR 4.0 AND 1.0

d. Atomic or Modern Physics	(Option1) PHYS 2121 AND PHYS 2122 (Option 2) PHYS 1101 PHYS 1102	University Physics I (5) AND University Physics II (5) College Physics I College Physics II	3.9 AND .6 3.0 AND .9
e. Physics Electives	Select 4 to 6 hours PHYS 3020 EASC 3112 PHYS 3211 PHYS 3512 AND PHYS 3080 PHYS 3611 AND PHYS 3080 PHYS 4312 PHYS 4512	Select 4 to 6 hours Special Topics in Physics: Astronomy Astronomy Analytical Mechanics I Modern Physics II AND Advanced Physics lab Optics Advanced Physics lab Electricity and Magnetism Intro to Quantum Mechanics	3 OR 3 3 3 AND 1 3 AND 1 3 3
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Chemistry	CHEM 1131 CHEM 1132	General Chemistry I General Chemistry II	5.0 5.0
b. Biology	BIOL 1112 BIOL 1110	Animal Biology Principles of Biology	4.0 OR 3.0
c. Earth Science	EASC 1004 EASC 1114 OR GEOG 1114	Introduction to Geology Weather and Climate	4.0 OR 4.0
d. Environmental Science	BIOL 1005 OR BIOL 1003	Introduction to Environmental Science Introduction to the Sciences Ecology	3.0
Content Knowledge Area - Total Semester Hours			36-40

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