



**EARTH SCIENCE, GRADES 9-12 - ALTERNATIVE**

EDUCATOR PREPARATION PROGRAM NAME <b>MISSOURI STATE UNIVERSITY</b>	EDUCATOR PREPARATION PROGRAM CODE <b>119119</b>
---	--

**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](mailto: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](mailto:DESE.MoSPETransition@dese.mo.gov)

**A. Professional Requirements (Minimum of 26 semester hours)**

<b>1. Content Planning and Delivery</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Curriculum and Instructional Planning	SEC302	General Methods of Instruction in the Middle and Secondary Schools	1(3)
b. Instructional Strategies and Techniques in Content Area Specialty	SCI314	Techniques and Technology in Science Laboratory Teaching	1(3)
	SCI414	Teaching of Secondary School Natural Science	1(3)
c. Assessment, Student Data, and Data-Based Decision-Making	SCI314	Techniques and Technology in Science Laboratory Teaching	1(3)
	SCI414	Teaching of Secondary School Natural Science	0(3)
d. Strategies for Content Literacy	RDG474 or RDG710	Reading and Writing in the Content Fields, Content Area Literacy	0(3)
e. Critical Thinking and Problem Solving	SEC302	General Methods of Instruction in the Middle and Secondary Schools	.5(3)
	EDC350	School and Society	1.5(3)
f. English Language Learning	RDG474 or RDG710	Reading and Writing in the Content Fields, Content Area Literacy	0(3)
	RDG640 or	Analysis and Correction of Difficulties in Literacy	0(3)
	RDG574/624	Analysis and Correction of Difficulties in Adolescent Literacy	0(3)
<b>2. Individual Student Needs</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Psychological Development of the Child and Adolescent	PSY360 or PSY710	Educational Psychology, Psychology of Education	1.5(3)
b. Psychology/Education of the Exceptional Child	SPE340 or SPE715	Educational Alternatives for Exceptional Students, Foundations in Special Education	2-3
c. Differentiated Learning	SEC302	General Methods of Instruction in the Middle and Secondary Schools	.5(3)
	RDG474 or RDG710	Reading and Writing in the Content Fields, Content Area Literacy	0(3)
	RDG640 or	Analysis and Correction of Difficulties in Literacy	0(3)
	RDG574/624	Analysis and Correction of Difficulties in Adolescent Literacy	0(3)
d. Classroom Management	SCI314	Techniques and Technology in Science Laboratory Teaching	1(3)
	SCI414	Teaching of Secondary School Natural Science	1(3)
e. Cultural Diversity	EDC345	Introduction to Multicultural Education and Diversity	3

f. Educational Psychology	PSY360 or PSY710	Educational Psychology, Psychology of Education	1.5(3)
<b>3. Schools and the Teaching Profession</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Consultation and Collaboration	RDG474 or RDG710	Reading and Writing in the Content Fields, Content Area Literacy	0(3)
b. Legal/Ethical Aspects of Teaching	EDC350 SCI493 SCI494	School and Society Supervised Teaching Supervised Teaching	1.5(3) 1(6) 1(6)
<b>4. Secondary Literacy (Minimum of six semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Reading and Writing in the Content Area	RDG474 or RDG710	Reading and Writing in the Content Fields, Content Area Literacy	3
b. Instructional Interventions for Students with Reading Deficits	RDG640 or RDG574/624	Analysis and Correction of Difficulties in Literacy Analysis and Correction of Difficulties in Adolescent Literacy	3 3
<b>Professional Requirements - Total Semester Hours</b>			<b>26-27</b>
<b>B. Field and Clinical Experiences (Minimum of ten semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
1. Early Field Experiences (Minimum of one semester hour with a minimum of 30 clock hours)	SEC302	General Methods of Instruction in the Middle and Secondary Schools	1(3)
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	SCI314	Techniques and Technology in Science Laboratory Teaching	0(3)
	SCI414	Teaching of Secondary School Natural Science	1(3)
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	SCI493	Supervised Teaching	5(6)
	SCI494 or Clinical experience met while employed as teacher of record with a provisional cert	Supervised Teaching	5(6)
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>12</b>
<b>C. Earth Science Content Knowledge Area (Minimum of 35 semester hours)</b>			
<b>Candidate must hold a degree in the content area or a closely related field OR obtain a passing score on the designated Missouri Content Assessment (MoCA)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
1. History/Philosophy of Science and Technology (three semester hours)			
2. Earth Science Coursework – Minimum of 20 semester hours which must include:			
a. Astronomy			
b. Meteorology			
c. Geology/Physical Geography			
d. Earth Science Electives			
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Chemistry			
b. Biology			
c. Physics			
d. Environmental Science			
<b>Content Knowledge Area - Total Semester Hours</b>			<b>ALT = 0</b>

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), 6<sup>th</sup> 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](mailto:civilrights@dese.mo.gov).