



**CHEMISTRY, 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](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)**

**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 4970 EDFL 5340	Intro to ELL and Culturally Responsive Pedagogy Science Learning and Literacy Secondary Teaching and Behavioral Management Contemporary Instruction Theory & Practice	1.0 1.0 OR 0.5 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 OR 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
<b>Professional Requirements - Total Semester Hours</b>			<b>29</b>
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 OR 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 OR 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 AND Student Teaching Secondary II OR 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
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>10</b>
C. Chemistry Content Knowledge Area (Minimum of 35 semester hours)			
	Course Number	Course Title	Semester Hours
1. History/Philosophy of Science and Technology (Minimum of three semester hours)	STCH 3020	Science and Engineering Practices	3.0
2. Chemistry Coursework – Minimum of 20 semester hours which must include:			
a. Inorganic Chemistry	CHEM 1131 CHEM 1132	General Chemistry I General Chemistry II	5.0 5.0
b. Analytical Chemistry	CHEM 3212	Quantitative Analysis	3.0
c. Organic Chemistry	CHEM 3341	Organic Chemistry I	4.0
d. Physical Chemistry	CHEM 4531	Phys Chem: Thermodynamics & Kinetics	4.0
e. Biochemistry	CHEM 3421	Intermediate Biochemistry	3.0
f. Chemistry Electives	no electives	no electives	0
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Biology	BIOL 1112 OR BIOL 1111 OR BIOL 1110	Animal Biology Plant Biology Principles of Biology	3.0 - 4.0
b. Physics	PHYS 1101 OR PHYS 2121	College Physics I University Physics	4.0-5.0
c. Earth Science	EASC 1004 OR EASC 1114	Introduction to Geology Weather & Climate	4.0
d. Environmental Science	BIOL 1003 and BIOL 1006 OR BIOL 1005 and BIOL 1006	Introduction to the Sciences: Ecology and Environmental Science/Ecology Lab  Introduction to Environmental Science and Environmental Science/Ecology Lab, 1	4.0  OR 4.0
<b>Content Knowledge Area - Total Semester Hours</b>			<b>43</b>

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