



**CHEMISTRY, GRADES 9-12 – ALTERNATIVE**

EDUCATOR PREPARATION PROGRAM NAME <b>WASHINGTON UNIVERSITY</b>	EDUCATOR PREPARATION PROGRAM CODE <b>300342</b>
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**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)

<b>A. Professional Requirements (Minimum of 26 semester hours)</b>			
<b>1. Content Planning and Delivery</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Curriculum and Instructional Planning	ED 415	- Curriculum and Instruction in Science	3(.3)
b. Instructional Strategies and Techniques in Content Area Specialty	ED 415	- Curriculum and Instruction in Science	(.2)
c. Assessment, Student Data, and Data-Based Decision-Making	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 408	- Education & Psych. of Exceptional Children	(.1)
	ED 4821	- Teaching-Learning Process in Secondary School	(.1)
d. Strategies for Content Literacy	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 5681	- Reading in the Content Areas	(.5)
e. Critical Thinking and Problem Solving	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 4821	- Teaching-Learning Process in Secondary School	(.2)
f. English Language Learning	ED 5253	- Instructional Interventions in Reading for Adolescents & English Language Learners	(.5)
	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 4821	- Teaching-Learning Process in Secondary School	(.1)
	ED 408	- Education & Psych. of Exceptional Children	(.1)
	ED 4843	- Field Experience Seminar	(.1)
<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	(These two courses)		
	ED 4052 AND	- Educational Psychology: Focus on Teaching and Learning in Schools	(.2)
	ED 313B	- Education, Childhood, Adolescence and Society	3(.8)
	OR		
(These 3 courses)	ED 4052	- (same as above)	3
	PSYCH 321	- Developmental Psychology	3
	PSYCH 325	- Psychology of Adolescence	3
b. Psychology/Education of the Exceptional Child	ED 408	- Education & Psychology of Exceptional Children	3(.5)
c. Differentiated Learning	ED 4052	- Educational Psychology: Focus on Teaching and Learning in Schools	(.1)
	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 4821	- Teaching-Learning Process in Secondary School	(.1)
	ED 408	- Education & Psych. of Exceptional Children	(.1)
	ED 4843	- Field Experience Seminar	(.2)

d. Classroom Management	ED 4052 ED 408 ED 4821 ED 4843	- Educational Psychology: Focus on Teaching and Learning in Schools - Education & Psych. of Exceptional Children - Teaching-Learning Process in Secondary School - Field Experience Seminar	(.1) (.1) 3(.2) (.2)
e. Cultural Diversity	ED 313B ED 4052  ED 4821 ED 4843  (one course) ED 301C ED 453B ED 459F ED 481	- Education, Childhood, Adolescence and Society - Educational Psychology: Focus on Teaching and Learning in Schools - Teaching-Learning Process in Secondary School - Field Experience Seminar  (one of the following courses) - American School - Sociology of Education - Philosophies of Education - History of Education	(.2) (.1)  (.1) (.1)  3
f. Educational Psychology	ED 4052	- Educational Psychology: Focus on Teaching and Learning in Schools	3(.5)
<b>3. Schools and the Teaching Profession</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Consultation and Collaboration	ED 4843 ED 4821	- Field Experience Seminar - Teaching-Learning Process in Secondary School	2(.2) (.1)
b. Legal/Ethical Aspects of Teaching	ED 4843 ED 4821 ED 408	- Field Experience Seminar - Teaching-Learning Process in Secondary School - Education & Psych. of Exceptional Children	(.2) (.1) (.1)
<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	ED 5681	- Reading in the Content Areas	3(.5)
b. Instructional Interventions for Students with Reading Deficits	ED 5253	- Instructional Interventions in Reading for Adolescents & English Language Learners	3(.5)
<b>Professional Requirements - Total Semester Hours</b>			<b>26</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)	ED 4052	- Educational Psychology: Focus on Teaching and Learning in Schools	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	ED 4843	- Field Experience Seminar	1
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	ED 492	- Student Teaching in Secondary School Or Hold a provisional certificate in the designated certification area and be employed as the teacher of record with a Missouri public school district or accredited non-public school for two years.	8
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>10</b>
<b>C. Chemistry Content Knowledge Area (Minimum of 35 semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
1. History/Philosophy of Science and Technology (Minimum of three semester hours)		All graduate candidates for alternative certification must possess a Bachelor's degree in the content area AND pass the Chemistry 9-12 Missouri Content Assessment.	
2. Chemistry Coursework – Minimum of 20 semester hours which must include:			
a. Inorganic Chemistry			
b. Analytical Chemistry			
c. Organic Chemistry			
d. Physical Chemistry			
e. Biochemistry			
f. Chemistry Electives			
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Biology			
b. Physics			
c. Earth Science			
d. Environmental Science			
<b>Content Knowledge Area – Total Semester Hours</b>			

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