



**CHEMISTRY, GRADES 9-12**

EDUCATOR PREPARATION PROGRAM NAME <b>WILLIAM JEWELL COLLEGE</b>	EDUCATOR PREPARATION PROGRAM CODE <b>062273</b>
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\*Courses marked with an asterisk address part of the competency, but the primary focus of the course is in another competency. Therefore, we list the course in multiple competencies but credit is only denoted in one to three focus areas.

**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	EDU 220 or EDU 216 ( <i>transition</i> )  EDU 275  EDU 501	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Instructional Design & Assessment (4 credit course) Differentiated Instruction (4 credit course)	1.00   2.00  *
b. Instructional Strategies and Techniques in Content Area Specialty	EDU 220 or EDU 216 ( <i>transition</i> )  EDU 280	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Disciplinary Literacy & Methods of Instruction (5 credit course)	1.00   1.00
c. Assessment, Student Data, and Data-Based Decision-Making	EDU 275  EDU 501	Instructional Design & Assessment (4 credit course) Differentiated Instruction (4 credit course)	2.00  *
d. Strategies for Content Literacy	EDU 280  EDU 308	Disciplinary Literacy & Methods of Instruction (5 credit course) Literacy Interventions in the Secondary Classroom (4 credit course)	1.00  1.00
e. Critical Thinking and Problem Solving	EDU 220 or EDU 216 ( <i>transition</i> )  EDU 275  EDU 280	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Instructional Design & Assessment (4 credit course) Disciplinary Literacy & Methods of Instruction (5 credit course)	1.00   *  *

f. English Language Learning	EDU 206 or EDU 234 ( <i>transition</i> ) EDU 501	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i> AND Differentiated Instruction (4 credit course)	*   1.00
<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	EDU 206 or EDU 234 ( <i>transition</i> )	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i>	1.00
b. Psychology/Education of the Exceptional Child	EDU 206 or EDU 234 ( <i>transition</i> )	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i>	2.00
c. Differentiated Learning	EDU 501	Differentiated Instruction (4 credit course)	2.00
d. Classroom Management	EDU 220 or EDU 216 ( <i>transition</i> ) EDU 501	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Differentiated Instruction (4 credit course)	1.00   1.00
e. Cultural Diversity	CTI 200 or CTI 150 or CTI 219 (also listed as COM 358)	U.S. Pluralism (4 credit course) OR Identity & Society (2 credit course) OR Intercultural Communication (4 credit course)	2.00-4.00
f. Educational Psychology	EDU 206 or EDU 234 ( <i>transition</i> ) EDU 220 or EDU 216 ( <i>transition</i> ) EDU 501	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i> AND High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> Differentiated Instruction (4 credit course)	1.00   *   *
<b>3. Schools and the Teaching Profession</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Consultation and Collaboration	EDU 401	- Reflective Student Teaching Seminar (4 credit course)	2.00
b. Legal/Ethical Aspects of Teaching	EDU 401	- Reflective Student Teaching Seminar (4 credit course)	2.00
<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	EDU 280	- Disciplinary Literacy & Methods of Instruction (5 credit course)	3.00
b. Instructional Interventions for Students with Reading Deficits	EDU 308	- Literacy Interventions in the Secondary Classroom (4 credit course)	3.00
<b>Professional Requirements - Total Semester Hours</b>			<b>31.00-33.00</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)	EDU 212	Clinical Fieldwork I	1.00	
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDU 213	Clinical Fieldwork II	1.00	
	EDU 214	Clinical Fieldwork III	1.00	
	EDU 311	Clinical Fieldwork IV	1.00	
	EDU 315	Clinical Fieldwork V	1.00	
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDU 420	Student Teaching in Secondary School I &	6.00	
	EDU 421	Student Teaching in Secondary School II		
<b>Field and Clinical Experiences -Total Semester Hours</b>			<b>17.00</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)	PHI 357	Contemporary Philosophy of Science	3.00-4.00	
2. Chemistry Coursework – Minimum of 20 semester hours which must include:	a. Inorganic Chemistry	CHE 122	General Chemistry II & Lab	
	b. Analytical Chemistry	CHE 206	Analytical Chemistry & Lab	
	c. Organic Chemistry	CHE 301	Organic Chemistry I & Lab	
	d. Physical Chemistry	CHE 401	Physical Chemistry I & Lab	
	e. Biochemistry	CHE 450	Biochemistry and Lab	
	f. Chemistry Electives	Credits as needed from: CHE 113 CHE 121	As needed selected from:  The Informed Chemist Fundamentals of General, Organic & Biological Chemistry (+ lab)	1.00 4.00-5.00
		CHE 205 CHE 302 CHE 404	General Chemistry I (+ lab) Organic Chemistry I & Lab Advanced Inorganic Chem	4.00-5.00 4.00-5.00 4.00-5.00
3. Additional Science Coursework – Minimum of 12 semester hours which must include:	a. Biology	BIO 133	Ecology and Evolution & Lab	
	b. Physics	One of the following PHY 111 PHY 112 PHY 213 PHY 214	One of the following for (5) credits College Physics I & Lab College Physics II & Lab General Physics I & Lab General Physics II & Lab	
c. Earth Science	CTI 258 OR CTI 262	Astronomy & Cosmology (4 credit course) or Astrobiology		
d. Environmental Science	BIO 133	Ecology and Evolution & Lab		
<b>Content Knowledge Area - Total Semester Hours</b>			<b>35-43</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).