



CHEMISTRY, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME COTTEY COLLEGE	EDUCATOR PREPARATION PROGRAM CODE 070431
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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 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	EDU370 EDU384 EDU310	Teaching in Secondary Schools Secondary Methods of Teaching Science Educational Psychology	1.00 1.50 .25
b. Instructional Strategies and Techniques in Content Area Specialty	EDU384	Secondary Methods of Teaching Science	1.50
c. Assessment, Student Data, and Data-Based Decision-Making	EDU 315	Assessment in Education	3.00
d. Strategies for Content Literacy	EDU325	Literacy in Content Areas	.25
e. Critical Thinking and Problem Solving	EDU370	Teaching in Secondary Schools	.25
f. English Language Learning	EDU370 EDU310 EDU325 EDU425	Teaching in Secondary Schools Educational Psychology Literacy in Content Areas Literacy Interventions	.25 .25 .25 .25

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PSY308	Psychology of Child & Adolescent Development	3.00
b. Psychology/Education of the Exceptional Child	EDU 320	Exceptional Learner	3.00
c. Differentiated Learning	EDU370 EDU210 EDU310	Teaching in Secondary Schools Foundations of Education Educational Psychology	.25 .50 .25
d. Classroom Management	EDU 415	Classroom Management	3.00
e. Cultural Diversity	EDU210 EDU370 EDU325	Foundations of Education Teaching in Secondary Schools Literacy in Content Areas	.50 .25 .25
f. Educational Psychology	EDU 310	Educational Psychology	2.75

3. Schools and the Teaching Profession

	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDU210 EDU370	Foundations of Education Teaching in Secondary Schools	.50 .25
b. Legal/Ethical Aspects of Teaching	EDU210 EDU370	Foundations of Education Teaching in Secondary Schools	1.00 .50

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4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	EDU325	Literacy in the Content Area	3.00
b. Instructional Interventions for Students with Reading Deficits	EDU425	Literacy Interventions	3.00
Professional Requirements - Total Semester Hours			30.75
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)	EDU 290	Field Experience I	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDU 390	Field Experience II	1
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDU 490	Student Teaching	8
Field and Clinical Experiences - Total Semester Hours			10
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)	CHE150	History and Philosophy of Science	3
2. Chemistry Coursework – Minimum of 20 semester hours which must include:			
a. Inorganic Chemistry	CHE210/211 CHE212/213	General Chemistry I & Lab General Chemistry II & Lab	4 4
b. Analytical Chemistry	CHE 310/311	Principles of Analytical Chemistry & Quantitative Analysis Lab	5
c. Organic Chemistry	CHE 320/321 CHE 322/323	Organic Chemistry I & Lab Organic Chemistry II & Lab	5 5
d. Physical Chemistry	CHE212/213	General Chemistry II & lab	4
e. Biochemistry	CHE 340/341	Biochemistry & Lab	4
f. Chemistry Electives	CHOOSE 1: CHE 120/121 CHE 130/131 CHE 330	Intro to Chemistry & Lab Intro to Environmental Chemistry & Lab Environmental Chemistry & Social Justice	4 4 3
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Biology	CHOOSE 1: BIO 301/301L BIO 105/1015L BIO 207/207L BIO 204/204L BIO 115 BIO 211/211L BIO 212/212L BIO 401/401L	Molecular Biology & Lab General Botany & Lab Zoology & Lab Genetics & Lab Human Nutrition Human Anatomy & Physiology I & Lab Human Anatomy & Physiology II & Lab Microbiology & Lab	4 4 4 4 3 4 4 4
b. Physics	CHOOSE 1: PHY 101/101L PHY 205 PHY 206	Introductory Physics General Physics I & Lab General Physics II & Lab	4 4 4
c. Earth Science	ENV 335	Earth Science: Soil, Water, Atmosphere	3
d. Environmental Science	CHOOSE 1: ENV 120 ENV 315 ENV 322	Intro to Environmental Science Ecosystems, Function, and Management Environment and Human Health/Toxicology	3 3 3
Content Knowledge Area - Total Semester Hours			35