



## CHEMISTRY GRADES 9-12 CURRICULUM MATRIX

EDUCATOR PREPARATION PROGRAM NAME Avila University	EDUCATOR PREPARATION PROGRAM CODE 511932
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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](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	ED 585 ED 515	Practicum General Methods & Differentiated Learning	1.0 1.0
b. Instructional Strategies and Techniques in Content Area Specialty	ED 555	Special Methods in Content Area	2.0
c. Assessment, Student Data, and Data-Based Decision-Making	ED 515 ED 593 ED 595 or ED 596	General Methods & Differentiated Learning Technology for Instruction & Assessment Final Clinical Experience or Internship	1.0 1.0 1.0
d. Strategies for Content Literacy	ED 575	Reading Strategies & Interventions in the Content Area	-
e. Critical Thinking and Problem Solving	ED 584 ED 585 ED 595 or ED 596	Introduction to Instructional Technology Practicum Final Clinical Experience or Internship	1.0 - 1.0
f. English Language Learning	ED 587	Multicultural Foundations of Education	1.0

#### 2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	ED 529	Developmental Educational Psychology	1.5
b. Psychology/Education of the Exceptional Child	ED 535	Psychology of the Exceptional Child	2.0
c. Differentiated Learning	ED 514 ED 515 ED 555	Instructional Technology for Differentiation General Methods & Differentiated Learning Special Methods	1.0 1.0 1.0
d. Classroom Management	ED 519	Managing the Learning Environment	2.0
e. Cultural Diversity	ED 587	Multicultural Foundations of Education	2.0
f. Educational Psychology	ED 529	Developmental Educational Psychology	1.5

#### 3. Schools and the Teaching Profession

	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	ED 585 ED 594	Practicum Final Clinical Experience Seminar	1.0 2.0
b. Legal/Ethical Aspects of Teaching	ED 535 ED 519 ED 594	Psychology of the Exceptional Child Managing the Learning Environment Final Clinical Experience Seminar	1.0 1.0 1.0

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).

4. Secondary Literacy (Minimum of 6 semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	ED 575	Reading Strategies & Interventions in the Content Area	3.0
b. Instructional Interventions for Students with Reading Deficits	ED 541	Foundations of Literacy & Language Development	3.0
<b>Professional Requirements - Total Semester Hours</b>			<b>33.0</b>
B. Field and Clinical Experiences (Minimum of 10 semester hours)			
	Course Number	Course Title	Semester Hours
1. Early Field Experiences (Minimum of 1 semester hour with a minimum of 30 clock hours)	ED 585	Practicum	1.0
2. Mid-Level Field Experiences (Minimum of 1 semester hour with a minimum of 45 clock hours)	ED 555	Special Methods in the Content Area	1.0
3. Culminating Clinical Experiences (Minimum of 8 semester hours with a minimum of 12 weeks in 1 placement)	ED 595 <i>or</i> ED 596	Final Clinical Experience <i>or</i> Internship	8.0
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>10.0</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 3 semester hours)	N/A	Possession of a Bachelor's Degree in a related content area and/or Passing score on the 9-12 Chemistry MoCA	0.0
2. Chemistry Coursework – Minimum of 20 semester hours which must include			
a. Inorganic Chemistry	N/A		0.0
b. Analytical Chemistry	N/A		0.0
c. Organic Chemistry	N/A		0.0
d. Physical Chemistry	N/A		0.0
e. Biochemistry	N/A		0.0
f. Chemistry Electives	N/A		0.0
3. Additional Science Coursework – Minimum of 12 semester hours which must include			
a. Biology	N/A		0.0
b. Physics	N/A		0.0
c. Earth Science	N/A		0.0
d. Environmental Science	N/A		0.0
<b>Content Knowledge Area - Total Semester Hours</b>			<b>0.0</b>