



CHEMISTRY, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME MARYVILLE UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 041639
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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.MoSPETtransition@dese.mo.gov on or before the date established in the Transition Plan.

QUESTIONS: Contact Educator Preparation, 573-751-1668 or DESE.MoSPETtransition@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	EDUC 241	Fundamentals of Secondary Schools	1
b. Instructional Strategies and Techniques in Content Area Specialty	EDUC 441/542	Teaching Science Methods: Secondary	2
c. Assessment, Student Data, and Data-Based Decision-Making	EDUC 241	Fundamentals of Secondary Schools	.5
d. Strategies for Content Literacy	EDUC 321	Literacy Across the Academic Disciplines	.5
e. Critical Thinking and Problem Solving	EDUC 241	Fundamentals of Secondary Schools	.5
f. English Language Learning	EDUC 241 EDUC 441/542	Fundamentals of Secondary Schools Teaching Science Methods: Secondary	.5 .5

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	Two of the following: EDUC 309/509, EDUC 313/513 or PSYC 254	Child Dev. & Learning, Adol. Dev. & Learning or Human Development through the Lifespan	1.5 1.5
b. Psychology/Education of the Exceptional Child	EDUC 352/552	Ed. Psych. of the Exceptional Child	2
c. Differentiated Learning	EDUC 201 EDUC 352/552 EDUC 441/542	School & Society Ed. Psych. of the Exceptional Child Teaching Science Methods: Secondary	.5 1 .5
d. Classroom Management	EDUC 315/515	Ed. Developmental Psych: Learn & Mgt.	2
e. Cultural Diversity	EDUC 201	School and Society	1
f. Educational Psychology	EDUC 315/515 EDUC 313/513	Ed. Developmental Psych: Learn & Mgt. Adolescent Development and Learning	1 1

3. Schools and the Teaching Profession

	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDUC 201 EDUC 404	School & Society Professional Seminar	.5 1
b. Legal/Ethical Aspects of Teaching	EDUC 201 EDUC 404	School & Society Professional Seminar	.5 1

4. Secondary Literacy (Minimum of six semester hours)

	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	EDUC 321/521	Literacy Across the Academic Disciplines	3
b. Instructional Interventions for Students with Reading Deficits	EDUC 361/561	Instructional Interventions in Reading	3

Professional Requirements - Total Semester Hours 26.5

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)	EDUC 200 or EDUC 240	Practicum in School & Society or Practicum in Fundamentals of Secondary Schools	2
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDUC 320, EDUC 360 or EDUC 440	Practicum in Literacy Across the Academic Disciplines, Practicum in Instr. Interventions in Reading or Setting up School Experience plus Practicum in Teaching Science Methods: Secondary	2
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDUC 400	Student Teaching	8
Field and Clinical Experiences - Total Semester Hours			12
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)	SCI 140	History & Philosophy of Science	3
2. Chemistry Coursework – Minimum of 20 semester hours which must include:			
a. Inorganic Chemistry	CHEM 103 and 103L	General Chemistry I plus Lab	2
	CHEM 104 and 104L	General Chemistry II plus Lab	1
b. Analytical Chemistry	CHEM 353 and 353L	Quantitative Analysis plus Lab	4
c. Organic Chemistry	CHEM 203 and 203L	Organic Chemistry I plus Lab	4
d. Physical Chemistry	CHEM 104 and 104L	General Chemistry II plus Lab	1
e. Biochemistry	CHEM 104 and 104L	General Chemistry II plus Lab	1
	CHEM 320 and 320L	Biochemistry plus Lab	4
	CHEM 204	Organic II	4
f. Chemistry Electives	CHEM 103 and 103L	General Chemistry I plus Lab	2
	CHEM 104 and 104L	General Chemistry II plus Lab	1
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Biology	BIO 117	General Biology I	4
b. Physics	PHYS 153 or PHYS 103 & PHYS 103L	Calculus Based Physics I or General Physics plus Lab	4
c. Earth Science	SCI 309 or SCI 132 or SCI 222 or SCI 301	Geology or Energy and Our World or Meteorology or Physical Geology	3
d. Environmental Science	SUST 101 SUST 201 SUST 150 or SUST 350	Intro to Sustainability Environmental Science and Health Sustainability Exploration Seminar Sustainability Expedition	3
Content Knowledge Area - Total Semester Hours			41

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