



MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION  
OFFICE OF EDUCATOR QUALITY – EDUCATOR PREPARATION

**BIOLOGY, 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. 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 Certification, 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	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 School	.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 School	.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>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)	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
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>12</b>
<b>C. Biology 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)	SCI 140	History and Philosophy of Science	3
2. Biology Coursework – Minimum of 20 semester hours which must include:			
a. Cell Biology	BIO 117 and 117L	General Biology I plus Lab	1.5
b. Plant Form and Function	BIO 118 and 118L	General Biology II plus Lab	1
c. Animal Form and Function	BIO 118 and 118L	General Biology II plus Lab	3
d. Genetics	BIO 117 and 117L BIO 260 and 260L	General Biology I plus Lab General Genetics plus Lab	1.5 4
e. Evolution	BIO 117 and 117L BIO 270 and 270L	General Biology I plus Lab Evolution plus Lab	1 4
f. Biology Electives	BIO 314 and 314L BIO 214 and 214L BIO 351 and 351L BIO 381 and 381L BIO 104 and 104L BIO 390 BIO 101 BIO 102 and 102L	<b>One of the following:</b> General Botany plus Lab Plants and People Cell Biology Ornithology Introductory Microbiology Biotech and Methods in Molecular Biology Human Anatomy and Physiology I Human Anatomy and Physiology II	4
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Chemistry	CHEM 103 and 103L	General Chemistry I plus Lab	4
b. Physics	PHYS 103 and 103L or PHYS 153 and 153L	General Physics I plus Lab or Calculus Based Physics I 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	2
d. Environmental Science	BIO 352 SUST 101 SUST 150 SUST 201 or SUST 350	General Ecology or Introduction to Sustainability Sustainability Exploration Seminar Environmental Science and Health or Sustainability Expedition	3 or 4
<b>Content Knowledge Area - Total Semester Hours</b>			<b>36-37</b>

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