



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

BIOLOGY, GRADES 9-12 - GRADUATE

EDUCATOR PREPARATION PROGRAM NAME WEBSTER UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 300335
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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	COMM 5187	Secondary Techniques & Curriculum	1
b. Instructional Strategies and Techniques in Content Area Specialty	SCIN 4060	Methods of Science Teaching	3
c. Assessment, Student Data, and Data-Based Decision-Making	CMAT 5015	Differentiated Instruction & Assessment	.75
d. Strategies for Content Literacy	COMM 5187 COMM 5920	Secondary Techniques & Curriculum Teaching Reading/Writing in the Content Fields	1 0
e. Critical Thinking and Problem Solving	COMM 5187	Secondary Techniques & Curriculum	1
f. English Language Learning	CMAT 5015	Differentiated Instruction & Assessment	.75

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	CMAT 5505 or EPSY 5505	Psychological Foundations of Education or Applied Developmental & Educational Psychology	2
b. Psychology/Education of the Exceptional Child	SPED 5860	Psychology of the Exceptional Student	3
c. Differentiated Learning	CMAT 5015	Differentiated Instruction & Assessment	.75
d. Classroom Management	CMAT 5170 or EPSY 5170	Classroom & Behavior Management or Behavioral Management	3
e. Cultural Diversity	CMAT 5000	Teaching in a Diverse Society	1
f. Educational Psychology	CMAT 5505 or EPSY 5505	Psychological Foundations of Education or Applied Developmental & Educational Psychology	1

3. Schools and the Teaching Profession

	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	CMAT 5015	Differentiated Instruction & Assessment	.75
b. Legal/Ethical Aspects of Teaching	CMAT 5000	Teaching in a Diverse Society	1

4. Secondary Literacy (Minimum of 6 semester hours)

	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	COMM 5920	Teaching Reading/Writing in the Content Fields	3
b. Instructional Interventions for Students with Reading Deficits	COMM 5905	Reading Assessments & Interventions Gr 6-12	3

Professional Requirements - Total Semester Hours 26

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)	CMAT 5000	Teaching in a Diverse Society	1
2. Mid-Level Field Experiences (Minimum of 1 semester hour with a minimum of 45 clock hours)	CMAT 5107	Practicum: Biology	2
3. Culminating Clinical Experiences (Minimum of 8 semester hours with a minimum of 12 weeks in 1 placement)	CMAT 5207	Apprentice Teaching: Biology	9
Field and Clinical Experiences - Total Semester Hours			12
C. Biology Content Knowledge Area (Minimum of 35 semester hours)			
	Course Number	Course Title	Semester Hours
		Content Courses to be determined by review of undergraduate transcripts and should include courses that fulfill areas below.	
1. History/Philosophy of Science and Technology (Minimum of 3 semester hours)	PHIL 2330 or PHIL 3310	Philosophy and Technology Philosophy of Science	3
2. Biology Coursework – Minimum of 20 semester hours which must include			
a. Cell Biology	BIOL 1550/1551	Essentials of Biology I/lab	5
b. Plant Form and Function	BIOL 1560/1561 or BIOL 1030/1031 or BIOL 3700/3701	Essentials of Biology II/lab or Biology of Plants/lab or Plant Physiology	5 or 4 or 4
c. Animal Form and Function	BIOL 1560/1561 or BIOL 1020/1021 or BIOL 2400	Essentials of Biology II/lab or Biology of Animals/lab or Zoology	5 or 4 or 3
d. Genetics	BIOL 3050/3051	Genetics/lab	4
e. Evolution	BIOL 2010	Evolution	3
f. Biology Electives	More from above or BIOL 1010 or BIOL 1050 or BIOL 1350 or BIOL 1580 or BIOL 2200 or BIOL 3010/3011 or BIOL 3080/3018 or BIOL 3120/3121 or BIOL 3150	As needed to equal 20 hours Human Biology or Biology of Disease or Phage Discovery or Introduction to Computational Biology or Biological Basis of Animal Behavior or Human Anatomy and Physiology I/lab or Cell Biology/Lab or Microbiology/lab or Nutrition	3-4
3. Additional Science Coursework – Minimum of 12 semester hours which must include			
a. Chemistry	CHEM 1100/01 or CHEM 1110/11	General Chemistry I/lab or General Chemistry II/lab	4
b. Physics	PHYS 1710/1711 or PHYS 1720/1721 or PHYS 2030/2031 or PHYS 2040/2041	College Physics I/lab or College Physics II/lab or University Physics I/lab or University Physics II/lab	4
c. Earth Science	SCIN 1100/1101 or SCIN 1470/1471 or SCIN 1600/1601	Earth Science and the Environment/lab or Earth Science and the Universe/lab or Physical Geology/lab	4
d. Environmental Science	BIOL 3200 or SCIN 1100/1101 or SCIN 1520/1521	Ecology or Earth Science and the Environment/lab or Environment/lab	3-4
Content Knowledge Area - Total Semester Hours			36-41

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