



BIOLOGY, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME	EDUCATOR PREPARATION PROGRAM CODE
WASHINGTON UNIVERSITY	300342

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	ED 415	- Curriculum and Instruction in Science	3 (.3)
b. Instructional Strategies and Techniques in Content Area Specialty	ED 415	- Curriculum and Instruction in Science	(.2)
c. Assessment, Student Data, and Data-Based Decision-Making	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 408	- Education & Psych. of Exceptional Children	(.1)
	ED 4821	- Teaching-Learning Process in Secondary School	(.1)
d. Strategies for Content Literacy	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 5681	- Reading in the Content Areas	(.5)
e. Critical Thinking and Problem Solving	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 4821	- Teaching-Learning Process in Secondary School	(.2)
f. English Language Learning	ED 5253	- Instructional Interventions in Reading for Adolescents & English Language Learners	(.5)
	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 4821	- Teaching-Learning Process in Secondary School	(.1)
	ED 408	- Education & Psych. of Exceptional Children	(.1)
	ED 4843	- Field Experience Seminar	(.1)

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	(These two courses)		(.2)
	ED 4052 AND	- Educational Psychology: Focus on Teaching and Learning in Schools	
	ED 313B	- Education, Childhood, Adolescence and Society	3 (.8)
	OR		
	(These 3 courses)		
	ED 4052	- (same as above)	3
	PSYCH 321 PSYCH 325	- Developmental Psychology - Psychology of Adolescence	3
b. Psychology/Education of the Exceptional Child	ED 408	- Education & Psychology of Exceptional Children	3 (.5)
c. Differentiated Learning	ED 4052	- Educational Psychology: Focus on Teaching and Learning in Schools	(.1)
	ED 415	- Curriculum and Instruction in Science	(.1)
	ED 4821	- Teaching-Learning Process in Secondary School	(.1)
	ED 408	- Education & Psych. of Exceptional Children	(.1)
	ED 4843	- Field Experience Seminar	(.2)

d. Classroom Management	ED 4052 ED 408 ED 4821 ED 4843	- Educational Psychology: Focus on Teaching and Learning in Schools - Education & Psych. of Exceptional Children - Teaching-Learning Process in Secondary School - Field Experience Seminar	(.1) 3 (.1) (.2) (.2)
e. Cultural Diversity	ED 313B ED 4052 ED 4821 ED 4843 (one course) ED 301C ED 453B ED 459F ED 481	- Education, Childhood, Adolescence and Society - Educational Psychology: Focus on Teaching and Learning in Schools - Teaching-Learning Process in Secondary School - Field Experience Seminar (one of the following courses) - American School - Sociology of Education - Philosophies of Education - History of Education	(.2) (.1) (.1) (.1) 3
f. Educational Psychology	ED 4052	- Educational Psychology: Focus on Teaching and Learning in Schools	3 (.5)

3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	ED 4843 ED 4821	- Field Experience Seminar - Teaching-Learning Process in Secondary School	2 (.2) (.1)
b. Legal/Ethical Aspects of Teaching	ED 4843 ED 4821 ED 408	- Field Experience Seminar - Teaching-Learning Process in Secondary School - Education & Psych. of Exceptional Children	(.2) (.1) (.1)

4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	ED 5681	- Reading in the Content Areas	3 (.5)
b. Instructional Interventions for Students with Reading Deficits	ED 5253	- Instructional Interventions in Reading for Adolescents & English Language Learners	3 (.5)

Professional Requirements - Total Semester Hours 26

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)	ED 4052	- Educational Psychology: Focus on Teaching and Learning in Schools	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	ED 4843	- Field Experience Seminar	1
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	ED 492	- Student Teaching in Secondary School	8

Field and Clinical Experiences - Total Semester Hours 10

C. Biology 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)	PHIL 321G	- Philosophy of Science	3
2. Biology Coursework – Minimum of 20 semester hours which must include:			
a. Cell Biology	BIOL 2960	- Principles of Biology I	4
b. Plant Form and Function	BIOL 3041	- Plant Biology and Genetic Engineering	4
c. Animal Form and Function	BIOL 3422	- Genes, Brains, and Behavior	3
d. Genetics	BIOL 2970	- Principles of Biology II	4
e. Evolution	BIOL 3501	- Evolution	4
f. Biology Electives: Examples: one of the following or equivalent elective	(Any one course in this block) CHEM 261 CHEM 262 BIOL 328 BIOL 3371 BIOL 349 BIOL 334 BIOL 3151 BIOL 3411	(Any one course in this block) - Organic Chemistry I with Lab - Organic Chemistry II with Lab - Principles of Human Physiology - Eukaryotic Genomes - Microbiology - Cell Biology - Endocrinology - Principles of Nervous System	 4 4 4 4 3 3 3 3

	BIOL 3421 BIOL 3501 BIOL 4023	- Introduction to Neuroethology - Evolution - How Plants Work: Physiology, Growth and Metabolism	3 3 3
	BIOL 4030 BIOL 4071 BIOL 4181 BIOL 4182 BIOL 4183 BIOL 419 BIOL 4580	- Biological Clocks - Developmental Biology - Population Genetics (and Microevolution) - Macroevolution - Molecular Evolution - Community Ecology - Principles of Human Anatomy and Development	3 3 3 3 3 4 3
	BIOL 424 BIOL 4492	- Immunology - Infectious Diseases: History, Pathology, and Prevention	4 3
	BIOL 451 BIOL 4810	- General Biochemistry - General Biochemistry I	4 3
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Chemistry	(One course and one lab course in block) CHEM 111A CHEM 151 OR CHEM 112A CHEM 1152	(One course and one lab course in block) - General Chemistry I - General Chemistry Lab I - General Chemistry II - General Chemistry Lab II	 3 2 3 2
b. Physics	(One course in block) PHYSICS 197 PHYSICS 198 PHYSICS 117A PHYSICS 118A	(One course in block) - Physics I - Physics II - General Physics I - General Physics II	 4 4 4 4
c. Earth Science	EPSC 201	- Earth and the Environment	4
d. Environmental Science	(One course in block) BIOL 2950 BIOL 381	(One course in block) - Introduction to Environmental Biology - Introduction to Ecology	 3 3
Content Knowledge Area - Total Semester Hours			35

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