



BIOLOGY, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME SOUTHEAST MISSOURI STATE UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 120120
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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 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	ED280	Introduction to Education as a Profession	0.5
	SE350	Pedagogy 1 Principles of Effective Teaching in Middle and Secondary	0.5
	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	0.5
	SE385	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching	.25
	SE320 EF400	Techniques of Teaching Science Seminar in Educational Issues	1 .25
b. Instructional Strategies and Techniques in Content Area Specialty	SE320 EF400	Techniques of Teaching Science Seminar in Educational Issues	1 .25
c. Assessment, Student Data, and Data-Based Decision-Making	ED280	Introduction to Education as a Profession	.25
	SE350	Pedagogy 1 Principles of Effective Teaching in Middle and Secondary	.5
	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	.5
	SE385 SE320	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching Techniques of Teaching Science	.5 .25
d. Strategies for Content Literacy	SE320 SE307	Techniques of Teaching Science Content Literacy Methods for Middle and High School	.25 Hours are counted under "Secondary Literacy"
e. Critical Thinking and Problem Solving	SE350	Pedagogy 1 Principles of Effective Teaching in Middle and Secondary	.25
	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	.25
	SE385	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching	.25
	SE320	Techniques of Teaching Science	.5
f. English Language Learning	SE385	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching	.25
	SE307	Content Literacy Methods for Middle and High School	Hours are counted under "Secondary Literacy"
	SE390	Instructional Interventions for Middle and High School Students with Special Literacy Needs	

2. Individual Student Needs			
	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PY222	Development of the Adolescent	3
b. Psychology/Education of the Exceptional Child	EX390	Psychology and Education of the Exceptional Child	3
c. Differentiated Learning	ED280	Introduction to Education as a Profession	.25
	SE350	Pedagogy 1 Principles of Effective Teaching in Middle and Secondary	.25
	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	.5
	SE385	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching	.5
	SE350	Pedagogy 1 Principles of Effective Teaching in Middle and Secondary	.5
	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	.5
d. Classroom Management	SE385	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching	.5
	EF400	Seminar in Educational Issues	.25
	ED280	Introduction to Education as a Profession	.25
e. Cultural Diversity	SE350	Pedagogy 1 Principles of Effective Teaching in Middle and Secondary	.5
	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	.25
	SE385	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching	.25
f. Educational Psychology	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	.25
	SE385	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching	.25
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	ED280	Introduction to Education as a Profession	.25
	SE350	Pedagogy 1 Principles of Effective Teaching in Middle and Secondary	.5
	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	.25
	SE385	Pedagogy 3 Advanced Methods of Middle and Secondary Teaching	.25
	EF400	Seminar in Educational Issues	.25
b. Legal/Ethical Aspects of Teaching	ED280	Introduction to Education as a Profession	.5
	SE365	Pedagogy 2 Secondary School-Interdisciplinary Methods and Technology	1
4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	SE307	Content Literacy Methods for Middle and High School	3
b. Instructional Interventions for Students with Reading Deficits	SE390	Instructional Interventions for Middle and High School Students with Special Literacy Needs	3
Professional Requirements - Total Semester Hours			28
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)	ED280	Introduction to Education as a Profession	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	SE355	Field Experience	3
	SE380	Advanced Field Experience	3
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	SE465	Middle and Secondary Student Teaching Field Experience	12
Field and Clinical Experiences - Total Semester Hours			19

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)	UI422	Scientific Reasoning	3
2. Biology Coursework – Minimum of 20 semester hours which must include:			
a. Cell Biology	BI 173	Cell and Organismal Biology	2
b. Plant Form and Function	BI 173	Cell and Organismal Biology	1
c. Animal Form and Function	BI 163 BI 173	Evolution and Ecology Cell and Organismal Biology	2 1
d. Genetics	BI 283	Genetics	4
e. Evolution	BI 163	Evolution and Ecology	2
f. Biology Electives	BI 310 BI/CH/PH405/605 BI 332	General Microbiology Engineering in Science Education General Ecology	4 1 3
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Chemistry	CH181/081/001 OR CH185 AND CH186	Principles of Chemistry (5) OR General Chemistry I (4) AND General Chemistry II (4)	5-8
b. Physics	PH106/006 OR PH120 AND PH121	Physical Concepts (3) OR Introduction to Physics I (5) AND Introduction to Physics II (5)	3-10
c. Earth Science	UI318	Earth Science: A process Approach	3
d. Environmental Science	BS105	Environmental Biology	3
Content Knowledge Area - Total Semester Hours			37-47

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