

Biology Education

Bachelor of Science in Education (BSED)

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The B.S. Ed. in Biology Education prepares highly qualified teachers of biology once all degree requirements and assessments are passed. Students have an exceptional program of professional preparation including field experiences, theory and pedagogy courses. The major in biology is well rounded helping teachers develop a strong foundation of biological knowledge. Once initial certification is obtained, additional areas of science may be added by passing the Missouri Content Assessment exams, as of present. Science teachers are in high demand across most of the United States and particularly in Missouri. Because of this there are forgiveness programs for different types of Federal loans in return for teaching science in a high needs school district (most in Missouri). In addition, students may be eligible to participate in the TEACH grant program which can pay up to \$16,000 in college costs over four years and has a similar loan forgiveness program. Be sure to consult the financial aid office for details.



Biology Education students will...

- have substantial and increasingly challenging experiences in schools before student teaching
- learn up-to-date techniques for teaching in the sciences
- know how to differentiate instruction so all students succeed
- develop a strong knowledge of biology
- be prepared to integrate technology in teaching

Career Planning

Career preparation is part of the mission of Southeast. 100% of programs offer our students an internship, study-abroad program, clinical opportunity, student teaching or research internship.

98% of students who searched for teaching positions entered the field within two years of graduation. Most have secured positions by graduation.

The Office of Career Services in Academic Hall 057 can provide students with professional career counseling and coaching, resume critiques, practice interviews, job search strategies, career events, networking opportunities, and more.

Graduate Schools of Recent Graduates

- Southeast Missouri State – MNS in biology or science education; University of Missouri- Ph.D.; University of Miami, Ohio – Ph.D.

Employment Opportunities of Recent Graduates

- Cape Girardeau, Jackson, Oran, Kelly, Arcadia Valley, Farmington, Fredericktown, Sikeston, Dexter, Ste. Genevieve, Cuba, Sullivan, Scott County Central, Puxico, Ellington, Florida, Herculeaneum, Perryville, Richland, St. Louis area, Windsor, Caledonia, Advance, Desoto, Kansas City, Rockwood, North City, South Iron County, California, Charleston, Portageville, St. Vincent's, Cape Career Center, Shawnee, Anna-Jonesboro.

Admission Requirements

- 42 course hours completed
- 2.75 cumulative GPA
- Missouri Educator Profile (MEP) results on file with the Office of the Associate Dean of the College of Education
- Score of 220 or higher on all sections of the Missouri General Education Assessment (MoGEA)
- The following course requirements met
 - A grade of C or above in PY222 Development of the Adolescent
 - A grade of B or above in ED280 Introduction to Education as a Profession

Additional Information

The state of Missouri has high expectations for future educators. Students matriculating into education programs must meet the following standards to be recommended for licensure following degree completion.

Students graduating spring 2017 or later must maintain a 3.0 GPA in both content and pedagogy courses. In addition students must pass the Missouri Content Assessment Exam and the Missouri Pre-Service Teacher Assessment for recommendation for licensure. Students must also fulfill other assessments such as the Missouri Educator Profile and be cleared through a FBI background check.

Special Options with Secondary Education

Southeast offers a Master of Arts in Secondary Education: Educational Studies or Educational Technology.

Transfer and Dual Credit Students

If you have dual credit or transfer credit, please visit our transfer course equivalencies guide at semo.edu/transfercredit.

To learn more
Office of Admissions
(573) 651-2590
admissions@semo.edu
semo.edu

To explore the College of Education, Health and Human Studies online, visit
semo.edu/education-health

For advising
Center for Academic Advising
semo.edu/advising

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This is a guide based on the 2018-2019 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

CURRICULUM CHECKLIST

"Critical Courses" are italicized and bolded. Data shows that students who have completed this course in the first two years and have earned the noted grade are most likely to complete this program of study.

Education Courses- 47 Hours Required

A grade of 'C' or better is required in education courses, with the exception of ED280 which requires a grade of 'B' or better.

- ___ **ED280 Introduction to Teaching (3)**
- ___ EF400 Student Teaching Seminar (1)
- ___ EX390 Psychology and Education of the Exceptional Child (3)
- ___ **PY222 Development of the Adolescent (3)**
- ___ SE307 Content Literacy Methods for Middle and High School (3)
- ___ SE320 Techniques of Teaching Science (3)
- ___ SE350 Pedagogy I: Principles of Effective Teaching (3)
- ___ SE355 Field II (3)
- ___ SE365 Pedagogy II: Secondary School (4)
- ___ SE380 Advanced Field (3)
- ___ SE385 Pedagogy 3: Advanced Methods of Middle and Secondary Teaching (3)
- ___ SE390 Instructional Interventions for Middle and Secondary Students with Special Literacy Needs (3)
- ___ SE465 Student Teaching (12)

Biology Education – 44-54 Hour Major - No Minor Required

Required Courses:

- ___ BI 163 Evolution & Ecology (4)
 - ___ BI 173 Cell & Organismal Biology (4)
 - ___ BI 283 Genetics (4)
 - ___ BI 310 General Microbiology (4)
 - ___ BI 332 General Ecology (3)
 - ___ BI 389 Career Develop in Biology (1)
 - ___ BI 405 Engineering in Science Education (1)
 - ___ MA 116 Precalculus A (3)
 - ___ UI 318 Earth Science: Proc Approach (3)
 - ___ UI 422 Scientific Reasoning (3)
- BIOLOGY EDUCATION OPTION:
- ___ BS105 Environmental Biology (3)
 - ___ PH 106 Physical Concepts (3)
 - OR
 - ___ PH 120 Introductory Physics I (5)
 - AND
 - ___ PH 121 Introductory Physics II (5)
 - ___ CH 181 Basic Principles of Chemistry (5)
 - OR
 - ___ CH 185 General Chemistry (5)
 - AND
 - ___ CH 186 Foundations of Inorganic Chemistry (3)
 - ___ Approved Biology elective, 300 level or above (3)

University Studies Requirements – some requirements may be fulfilled by coursework in major program

- Social and Behavioral Sciences – 3 hours
- Constitution requirement – 3 hours
- US History requirement – 3 hours
- Written Communication – 6 hours
- Oral Communication – 3 hours
- Natural Sciences – 7 hours (from two disciplines, one to include a lab)
- Mathematics – 3 hours
- Humanities & Fine Arts – 9 hours (from at least two disciplines)
- Additional requirements – 5 hours (to include UI100 for native students)

SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
FIRST YEAR	UI100	3	BI173	4
	BI163	4	BS105	3
	CH181	5	EN100	3
	MA116	3	University Studies	3
			University Studies	3
	Total	15	Total	18
Milestone: Maintain 2.75 cumulative GPA				
SECOND YEAR	BI283	4	BI310	4
	PH106	3	ED280	3
	PY 222	3	University Studies	3
	University Studies	3	University Studies	3
	University Studies	3	University Studies	3
	Total	16	Total	16
Milestone: Maintain 2.75 cumulative GPA, 42 hours completed; completed MEP; Passing score MoGEA				
THIRD YEAR	BI 332	3	SE 307	3
	BI 405	1	SE 355	3
	EX 390	3	SE 365	4
	SE 350	3	UI 318	3
	UI 422	3	Biology elective	3
	University Studies	3		
	Total	16	Total	16
Milestone: Passing score Mo. Content Exam; GPA in major 3.0				
FOURTH YEAR	BI 389	1	EF 400	1
	SE 320	3	SE465	12
	SE 380	3		
	SE 385	3		
	SE390	3		
	Total	13	Total	13
Milestone: Prior to last semester: Passing score Mo Content Exam, 2.75 cumulative GPA, 3.0 GPA in content; 3.0 GPA in pedagogy; all content and professional education coursework complete.				

A "Milestone" signifies a significant stage for a student in the completion of a degree.

Degree requirements for all students: a minimum of 120 credit hours, completion of University Studies program, completion of 39 senior division hours (300-599), Writing Proficiency Exam (WP003), and completion of the Measure of Academic Proficiency and Progress (MAP) at the senior level. Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.