

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. In fact, more than 90% of Southeast students participate in internships, clinical opportunities, student teaching, research assistantships, and study abroad.

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

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

Demonstrated Career Proficiency is a Requirement of all Southeast Students		
CL001/CL002	First Semester	Complete the FOCUS2 assessment and develop a Career Action Plan.
CL003	Junior Year	Students gain information about career planning and job searching resources.
CL004	Senior Year	Students demonstrate advanced proficiency by identifying a position in their field, developing a cover letter, and tailoring a resume for the position. Materials are critiqued to ensure preparedness for a successful job search.

Internship and Employment Opportunities of Recent Graduates/ or Graduate Schools and Programs of Recent Graduates

- Graduate Schools: Southeast Missouri State – MNS in biology or science education; University of Missouri-Ph.D.; University of Miami, Ohio – Ph.D.
- Employment at schools in Cape Girardeau, Jackson, Oran, Kelly, Arcadia Valley, Farmington, Fredericktown, Sikeston, Dexter, Ste. Genevieve, Cuba, Sullivan, Scott County Central, Puxico, Ellington, Florida, Herculaneum, 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. Most had secured positions by graduation.

Admission Requirements

- Cumulative 2.75 GPA
- Pass all sections of the Missouri General Education Assessment
Current Pass Scores for MoGEA
 - English - 186
 - Writing - 167
 - Math - 183
 - Science - 183
 - Social Studies - 183

All students must have:

- 42 hours of course credits
- Missouri Educator Profile (MEP) results on file
- ED 280 Introduction to Teaching as a Profession with a grade of "B" or above
- PY222 Development of the Adolescent with a grade of C or above

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

- Cumulative 2.75 GPA
- GPA of 3.0 in area of content and pedagogy courses
- Pass the Missouri Content Area Exam in Biology
- Pass the Missouri Preservice Teacher Assessment
- Fulfill the assessment of the Missouri Educator Profile
- Complete a FBI background check

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This is a guide based on the 2015-2016 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 DegreeWorks to monitor their individual progress.

CURRICULUM CHECKLIST

"Critical Courses" are italicized and bold. 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 Reading/Writing in the Content Area (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 - 43-64 Hour Major - No Minor Required Required Courses:

- ___ BI 151 Biological Reasoning (3)
- ___ BI 153 Introduction to Organismal Biology (4)
- ___ BI 154 Genetics and Cell Biology (4)
- ___ BI 200 General Microbiology (3)
- ___ BI 332 General Ecology (3)
- ___ BI 405 Engineering in Science Education (1)
- ___ BI 489 Analysis of Biological Issues (2)
- ___ MA 134 College Algebra (3)
- ___ UI 318 Earth Science: A Process 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)
- ___ 3 hours approved Biology electives at the 300-500 level

University Studies Requirements (not already listed above):

UI100 First Year Seminar, EN100 English Composition, Artistic Expression, Written Expression, Oral Expression, Literary Expression, Development of a Major Civilization, Economic Systems, Political Systems, Social Systems, and one IU/UI3XX

SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
FIRST YEAR	UI100	3	BI153	4
	EN100	3	CH181 or CH185	5
	BI151	3	Develop of a Major Civ	3
	MA134	3	Economic Systems	3
	Political Systems	3	Written Expression	3
	Total	15	Total	18
Milestone: Maintain 2.75 cumulative GPA				
SECOND YEAR	BI154	4	BI 200	3
	PH106 or PH120	3-5	BS105	3
	<i>PY 222</i>	3	<i>ED280</i>	3
	Oral Expression	3	PH121 (if required)	0-5
	Social Systems	3	Literary Expression	3
	Total	16-18	Total	12-17
Milestone: Maintain 2.75 cumulative GPA, 42 hours completed; completed MEP; Passing score MoGEA				
THIRD YEAR	BI 332	3	BI 405	1
	CH 186 (if required)	0-3	SE 307	3
	EX 390	3	SE 355	3
	SE 350	3	SE 365	4
	UI 422	3	UI 318	3
	Artistic expression	3	Biology elective	3
Total	15-18	Total	17	
Milestone: Passing score Mo. Content Exam; GPA in major 3.0				
FOURTH YEAR	BI 489	2	EF 400	1
	SE 320	3	SE 465	12
	SE 380	3		
	SE 385	3		
	SE390	3		
	IU/UI 3xx	3		
Total	17	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, career proficiencies (CL001-004), 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 DegreeWorks for additional graduation requirements (i.e. minimum GPA and additional options) for your program of study.

Revised
8/13/2015