The B.S.Ed. in Unified Science-Biology prepares students who will be certified in all areas of high school science. This degree is very desirable from the school district’s point of view and is a necessity for teachers in very small districts where a single teacher may serve the entire high school. In larger districts teachers with unified science certification can be hired for more types of science positions. Southeast prepares highly qualified teachers ready for certification once all degree requirements and assessments are complete. Students have an exceptional program of professional preparation including multiple field experiences, theory and pedagogy courses. The major in biology and supporting sciences is well rounded helping teachers develop a strong foundation of knowledge. 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 visit the financial aid office for details.

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**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.

**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 Exams in Biology, Chemistry, Earth Science, and Physics
- Pass the Missouri Preservice Teacher Assessment
- Fulfill the assessment of the Missouri Educator Profile
- Complete a FBI background check

**Demonstrated Career Proficiency is a Requirement of all Southeast Students**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Semester</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL001/CL002</td>
<td>First Semester</td>
<td>Complete the FOCUS2 assessment and develop a Career Action Plan.</td>
</tr>
<tr>
<td>CL003</td>
<td>Junior Year</td>
<td>Students gain information about career planning and job searching resources.</td>
</tr>
<tr>
<td>CL004</td>
<td>Senior Year</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

Professional Education Courses:
A grade of "C" or better is required in education courses. A grade of "B" is required in ED 280.

- ED280 Introduction to Teaching (3)
- EX390 Psychology and Education of the Exceptional Child (3)
- PY222 Development of the Adolescent (3)
- SE320 Techniques of Teaching Science (3)
- SE350 Pedagogy 1: Principles of Effective Teaching (3)
- SE355 Field II (3)
- SE365 Pedagogy 2: 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 - 61 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)

UNIFIED SCIENCE OPTION:
- BO 3xx/4xx Advanced Botany (3)
- BS 113 Anatomy & Physiology I (4)
- BS 114 Anatomy & Physiology II (4)
- CH 195 General Chemistry (5)
- CH 186 Fundamentals of Inorganic Chemistry (3)
- GO 110 Physical Geology (3)
- MA 133 Plane Trigonometry (3)
- PH 120 Introductory Physics I (5)
- PH 121 Introductory Physics II (5)

University Studies Requirements (not already listed above):
UI100 First Year Seminar, EN100 English Composition, Artistic Expression, Written Expression, Oral Expression, Literacy Expression, Development of a Major Civilization, Economic Systems, Political Systems, Social Systems, and one IU/UI3xx

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 (MAPP) at the senior level.

To explore the requirements (i.e. minimum GPA and additional options) for your program of study.

For advising
College of Science, Technology, and Agriculture
Advising Center (573) 651-5930
costadvising@semo.edu
www.semo.edu/costa/advising

To learn more
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