Secondary Education BSEd Science-Biology Emphasis

The Bachelor’s of Science in Secondary Education degree prepares students to teach in secondary school settings, grades 9-12. This program requires the selection and completion of required coursework in a specific content area.

University General Education and Graduation Requirements

B.S.Ed. degree candidates must complete the following General Education requirements and Graduation requirements of the University as outlined in this Bulletin.

The courses listed below fulfill General Education requirements and best prepare students for advanced education coursework and licensure exams.

Core Areas:
First Year Writing
ENGL 1100 First-Year Writing (MOTR ENGL 200) 3

Communication Proficiency
EDUC 2222 Interpretation: Connecting Audiences and Meaning 3
or COMM 1040 Introduction to Public Speaking (MOTR COMM 110) 3

Math Proficiency
MATH 1020 Contemporary Mathematics (MOTR MATH 120) 3
or MATH 1030 College Algebra (MOTR MATH 130) 3

Information Literacy
ED TECH 2230 Information Literacy 3

American History or Government
POL SCI 1100 Introduction to American Politics (MOTR POSC 101) 3
or HIST 1001 American Civilization to 1865 (MOTR HIST 101) 3

Humanities and Fine Arts
Choose any 9 hours from approved fields. 9

Social Science
Choose any 9 hours. At least one course must meet the cultural diversity requirement 9

Math and Life/Natural Sciences
Choose any 9 hours. 9

Junior Level Writing
ENGL 3100 Junior-Level Writing 3

Total Hours 45

Program Requirements

All students in the B.S.Ed. in Secondary Education program are required to take the following Teacher Education courses. Each student must also select a content area and complete the required courses and certification assessments for that area as specified by the Missouri Department of Elementary and Secondary Education.

Grade Requirement
Professional Education courses must be completed with a grade of C or better (courses completed with a grade of C- or below must be retaken).

GPA Requirement
Beginning with those students graduating in May 2017 who will also receive teaching certification, the Missouri Department of Elementary and Secondary Education requires a 3.0 GPA in professional education courses, a 3.0 GPA in the teaching content field, and a 2.75 overall GPA.

Assessment Requirement
Students must pass the required DESE certification assessments to receive the B.S.Ed. degree.

Preparing for the Teacher Education Program

The following courses must be completed prior to applying for admission to the teacher education program:

- TCH ED 1000 Building Community, Culture, and Learning in Education 1
- TCH ED 1001 Early Clinical Experience: Community Agency 1
- TCH ED 2000 Becoming a Professional Educator 1
- TCH ED 2001 Early Clinical Experience: Schools 1
- TCH ED 2209 Foundations of Teaching in American Schools 2
- ED PSY 2212 Child and Adolescent Development 3

Total Hours 9

Teacher Education Program

The following courses are completed after acceptance into the teacher education program:

- TCH ED 3001 Mid-Level Clinical Experience: Diverse Learners 1
- ED PSY 3312 Psychology of Learning, Instruction, and Assessment 3
- TCH ED 3310 Introduction to Methods of Teaching 3
- SPEC ED 3318 Inclusive Classrooms 3
- TCH ED 4391 Literacy for Adolescent Learners in Content Areas 3
- SEC ED 4880 Writing for Teachers 1 3

Total Hours 16

1 SEC ED 4880 is not required for foreign language emphasis areas.

In addition to the above courses, students must complete 30-50 hours of required coursework in one specific content area (English, French K-12, Spanish K-12, mathematics, biology, chemistry, physics, or social studies), as well as the appropriate methods course:

- SEC ED 4011 The Curriculum and Methods of Teaching History and Social Studies 3
- SEC ED 4240 Curriculum and Methods of Teaching Physical Sciences 3
SEC ED 4589  Curriculum and Methods of Teaching Foreign Languages  3  
SEC ED 4646  The Curriculum And Methods Of Teaching Math  3  
SEC ED 4885  The Curriculum And Methods Of Teaching English  3  
SEC ED 4985  Curriculum and Methods of Teaching Life Sciences  3  

The program will culminate in the following practicum courses:

SEC ED 4989  Practicum I: Site-Based Experience  3  
SEC ED 4990  Practicum II: Site-Based Experience  12  

Total Credit Hours: 120 Minimum

B.S. Ed. in Secondary Education with Emphasis in Biology

The B.S. Ed. is a professional education degree designed for students who wish to pursue a teaching career in secondary schools. Much of the discipline-specific coursework parallels the B.A. or B.S. degree in the discipline; however, the Missouri Department of Elementary and Secondary Education (DESE) requires specific coursework for teacher certification. Therefore, students interested in the B.S. Ed. should contact the advising office (OASIS) 314-516-5937 in the College of Education for discipline-specific requirements. Note: To obtain teaching certification, DESE requires a 3.0 GPA in the discipline and professional education coursework, as well as a 2.75 GPA overall.

B.A. or B.S. in Biology with Master’s Level Coursework for Secondary Teacher Certification

In addition to the B.S. Ed., students may opt to complete a B.A. or B.S. degree in their discipline as an undergraduate, followed by admission to the Graduate School for Master’s level teaching certification. The College of Education has a one-year accelerated program for post-graduate certification called Teach in 12, or students can choose a traditional path to certification. Graduate coursework for certification can apply towards a Master’s Degree in Secondary Education, with additional coursework. Students interested in Master’s Level teacher certification should contact the advising office (OASIS) 314-516-5937 in the College of Education. Note: To obtain teaching certification, DESE requires a 3.0 GPA in the discipline and professional education coursework, as well as a 2.75 GPA overall.

Learning Outcomes

Upon completion of the program, graduates will be able to:

- Continually reflect on professional growth to improve student learning outcomes/enhance student learning.
- Integrate technology to create meaningful student learning within the context of a global digital society.
- Apply content and pedagogical knowledge to create authentic and deep learning experiences.
- Use learning science principles to design, implement, and evaluate curriculum based on learning standards.
- Foster effective working relationships with students, school colleagues, families, and community members to enhance student learning and well-being.
- Design and establish a safe, inclusive, and respectful learning environment that nurtures the intellectual, social, and personal development of all students.
- Use equitable frameworks and inclusive practices to create a variety of instructional and assessment opportunities adapted to diverse learners to encourage all students’ critical thinking, problem solving, and performance skills.