

Education (BA) with an Emphasis in Secondary Biology

This program is offered by the School of Education/Department of Teacher Education and is only available at the St. Louis main campus.

Program Description

The bachelor of education program provides candidates with a strong knowledge base of content, child and adolescent development and current research that supports best practices in education. This program is centered around contemporary design-based research principles with a focus on how students learn within inquiry-based environments.

This undergraduate degree program is designed to provide the foundation for teacher preparation leading to initial Missouri teacher certification and is approved by the Missouri Department of Elementary and Secondary Education.

The bachelor of education program is accredited by the Council for the Accreditation of Educator Preparation (CAEP).

Learning Outcomes

- Education candidates will demonstrate knowledge of the subject matter, knowledge of the learner and knowledge of pedagogy based on inquiry and scholarship. This includes knowing content that supports conceptual understanding, applying tools of inquiry to construct meaningful learning experiences, identifying developmental factors in student learning and understanding theoretical principles of effective instruction to plan learning experiences.
- Education candidates will incorporate multiple assessment and instructional strategies to support effective educational practices based on research and theory. This involves designing curriculum based on students' prior knowledge, learning styles, strengths and needs, understanding and uses a range of instructional strategies, using a variety of communication modes, media and technology to support student learning and employing a variety of formal and informal assessments to monitor learning and modify instruction.
- Education candidates will reflect on the roles educators take as leaders of change through collaboration with colleagues, students and families in schools and communities. This is demonstrated through valuing and integrating reflection to grow as a professional, promoting communication and collaboration with colleagues, families and community leaders, seeking relationships with families and students to support student learning and initiating change that benefits students and their families.
- Education candidates will demonstrate respect for diversity through responsive teaching and learning that values individual differences. This includes understanding and responding appropriately to issues of diversity, acknowledging social and cultural context to create effective teaching and learning environments, adapting instruction to the learner's knowledge, ability and background experience, and identifying resources for specialized services when needed.

Degree Requirements

For information on the general requirements for a degree, see Baccalaureate Degree Requirements under the Academic Policies and Information section of this catalog.

- 33 required credit hours
- Applicable University Global Citizenship Program hours*
- Additional required certification coursework and electives

*Students should consult with their advisor to determine Global Citizenship Program (GCP) coded courses that meet required certification competencies.

Required Major Courses

- EDUC 2000 Beginning Practicum in Education (*B or better required*) (1 hour)
- EDUC 2800 Foundations in Education (*B or better required*) (3 hours)
- EDUC 2900 Education of Students with Exceptionalities (3 hours)
- EDUC 3100 Learning, Teaching, and Assessment (3 hours)
- EDUC 3375 Behavior Management (3 hours)
- EDUC 3440 Digital Pedagogy and Assistive Learning Technologies (3 hours)
- EDUC 3008 Practicum: Secondary Biology (2 hours)
- EDUC 3099 Practicum Seminar (1 hour)
- EDUC 4000 Apprentice Teaching Seminar (1 hour)
- EDUC 4973 Apprentice Teaching: Secondary Biology (13 hours)

Additional Education and Content Courses for Certification

- EDUC 2110 Communication in Education (3 hours)
- EDUC 2140 Writing for Teachers (*B- or better required*) (3 hours)
- A second course with GCP coding for Written Communication (3 hours)
- EDUC 4360 STEM Methods (3 hours)
- EDUC 4380 Teaching Reading and Writing in the Content Areas (3 hours)
- EDUC 4390 Differentiated Reading Assessment and Intervention (3 hours)
- EDUC 4435 Inclusive Practices and Methods for Teaching English Learners (3 hours)
- PHIL 2330 Philosophy and Technology (3 hours)
or PHIL 3310 Philosophy of Science (3 hours)

Biology Content

- BIOL 1550 Essentials of Biology I (4 hours)
and BIOL 1551 Essentials of Biology I: Lab (1 hour)
- BIOL 1560 Essentials of Biology II (4 hours)
and BIOL 1561 Essentials of Biology II: Lab (1 hour)
- BIOL 2010 Evolution (3 hours)
- BIOL 3050 Genetics (3 hours)
and BIOL Genetics: Lab (1 hour)
- BIOL elective (3 hours) to be determined by advisor and aligned with DESE matrix

Other Science Content

- BIOL 3200 Ecology (3 hours)
and BIOL 3201 Ecology: Lab (1 hour)
- CHEM 1100 General Chemistry I (3 hours)
and CHEM 1101 General Chemistry I: Lab (1 hour)
- PHYS 1710 College Physics I (3 hours)
and PHYS 1711 College Physics I: Lab (1 hour)
- SCIN 1470 Earth and Universe (3 hours)
and SCIN 1471 Earth and Universe: Lab (1 hour)
- Additional required certification coursework and electives to total minimum degree requirements aligned with the DESE matrix

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Admission to the Major

Students may be fully admitted to the major when the following criteria have been met:

- A grade of B or better in EDUC 2800 Foundations in Education.
- A grade of B or better in EDUC 2000 Beginning Practicum in Education.
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