

BIOLOGY/SECONDARY MAJOR, BACHELOR OF ARTS IN EDUCATION (BAE)

This major satisfies the endorsement requirements for grades 5–12.

Notes:

- BAE students must complete both the courses below and the secondary education core courses;
- the option requires more than 12 quarters to complete at 15 credits per quarter.

Grade Requirements: a cumulative GPA ≥ 2.8 for all courses $\geq C$ in each course in student's curriculum in Biology.

Secondary Education students must complete the required Secondary Education Core and the following courses.

Required Biology Courses

BIOL 171	BIOLOGY I	5
BIOL 172	BIOLOGY II	5
BIOL 173	BIOLOGY III	5
BIOL 270	BIOLOGICAL INVESTIGATION	3
BIOL 301	MICROBIOLOGY	5
BIOL 302	BOTANY	5
BIOL 310	FUNDAMENTALS OF GENETICS	5
BIOL 340	BIOETHICS	2
BIOL 423	EVOLUTION	5
BIOL 440	ECOLOGY	4
BIOL 441	ECOLOGY LAB	2

Choose one of the following 5

BIOL 303	INVERTEBRATE ZOOLOGY
BIOL 304	VERTEBRATE ZOOLOGY

Choose one of the following 4-5

BIOL 334	HUMAN ANATOMY AND PHYSIOLOGY III
BIOL 351	PRINCIPLES OF ANIMAL PHYSIOLOGY
BIOL 352	PRINCIPLES OF PLANT PHYSIOLOGY
BIOL 353	PRINCIPLES OF MICROBIAL PHYSIOLOGY

Required Supporting Courses

BIOL 390	BIOLOGY TEACHING METHODS	2
CHEM 171 & 171L	GENERAL CHEMISTRY I and GENERAL CHEMISTRY LABORATORY I	15
& CHEM 172 & CHEM 172L	and GENERAL CHEMISTRY II and GENERAL CHEMISTRY LABORATORY II	
& CHEM 173 & CHEM 173L	and GENERAL CHEMISTRY III and GENERAL CHEMISTRY LABORATORY III	
SCED 390	SCIENCE TEACHING METHODS	2

Choose one of the following 5

BIOL 380	DATA ANALYSIS FOR BIOLOGISTS
MATH 142	PRECALCULUS MATH II
MATH 380	ELEMENTARY PROBABILITY AND STATISTICS

Required Senior Capstones—must be taken concurrently

SCED 490A	SCIENCE TEACHING CAPSTONE SEMINAR	3
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SCED 490B	SCIENCE TEACHING CAPSTONE FIELD APPLICATION	2
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Total Credits 84-85

Education (<http://catalog.ewu.edu/archives/2021-2022/ps/se/>)

Secondary Education Core

30-hour multicultural education field requirement

EDUC 303 & EDUC 309 & EDUC 341 & EDUC 386A & EDUC 413	FOUNDATIONS OF ASSESSMENT and FOUNDATIONS OF SECONDARY CLASSROOM MANAGEMENT and SECONDARY STRATEGIES, MANAGEMENT, ASSESSMENT and FIELD EXPERIENCE AND PRACTICUM and CONTENT AREA LITERACY: MANAGEMENT AND ASSESSMENT FOR SECONDARY EDUCATION CANDIDATES	15
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EDUC 386B & EDUC 427	FIELD EXPERIENCE AND PRACTICUM and GENERAL STUDENT TEACHING K-12 (These are variable credit courses. The minimum for each is 3 credits.)	6-15
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EDUC 426	SECONDARY STUDENT TEACHING 7-12	12
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Total Credits 33-42

University Competencies and Proficiencies

English (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#newitemtext>)

Quantitative and Symbolic Reasoning (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#mathcompproficiencytext>)

Placement and Clearance Exams (<http://catalog.ewu.edu/archives/2021-2022/placement/>)

Prior Learning/Sources of Credit AP, CLEP, IB (<http://catalog.ewu.edu/archives/2021-2022/prior-learning/>)

General Education Requirements (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#generaleducationrequirementstext>) (GER)

- Minimum Credits—180 cumulative credit hours
 - 60 upper-division credits (300 level or above)
 - 45 credits in residence (attendance) at Eastern, with at least 15 upper-division credits in major in residence at Eastern
- Minimum Cumulative GPA ≥ 2.0

Breadth Area Core Requirements (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#generaleducationcorerequirementsgecrtxt>) (BACR)

Humanities and Arts (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#humanitiesandfineartsgecrtxt>)

Natural Sciences (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#naturalsciencesgecrtxt>)

Social Sciences (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#socialsciencesgecrtxt>)

University Graduation Requirements (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#universitygraduationrequirementstext>) (UGR)

Diversity Course List (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#cultureandgenderdiversityintheuslisttext>)

Foreign Language (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#foreignlanguageugrttext>) (for Bachelor of Arts)

Global Studies Course List (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#internationalstudiesrequirementtext>)

Minor or Certificate (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#majorminororcertificateugrttext>)

Senior Capstone Course List (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#capstonecourselisttext>)

All admitted students must officially Declare a Major (<https://inside.ewu.edu/center-for-academic-advising-and-retention/academic-planning-tools/declare-your-major/>) by the time they reach 90 credits (junior standing).

Application for Graduation (use EagleNET (<https://inside.ewu.edu/eaglenet/>)) must be made at least two terms in advance of the term you expect to graduate (undergraduate and post-baccalaureate).

Use the Catalog Archives (<https://catalog.ewu.edu/archives/>) to determine two important catalog years (<http://catalog.ewu.edu/archives/2021-2022/undergraduate-degree/#activecatalogruletext>).

SOAR (<https://soar.ewu.edu/selfservice/general/home.html>) calculates based on these two catalog years.

1. The catalog *in effect at the student's first term* of current matriculation is used to determine **BACR** (Breadth Area Credit Requirements) **and UGR** (Undergraduate Graduation Requirements).
2. The catalog *in effect at the time the student declares a major or minor* is used to determine the program requirements.

Students who successfully earn a BAE in Biology/Secondary from EWU should be able to do the following:

- apply best practices to teach biology that are outlined in the Next Generation Science Standards;
- demonstrate effective strategies for teaching biology to a community of diverse students;
- demonstrate understanding of core concepts in biology;
- describe the procedures for responding to potential safety hazards in the laboratory, classroom, and field;
- shows evidence of integrating the three dimensions of the Next Generation Science Standards.