

MIDDLE LEVEL SCIENCE EDUCATION MAJOR, BACHELOR OF ARTS IN EDUCATION (BAE)

Completion of this major, the General Degree Completion Requirements for Elementary or Secondary Education, satisfies the state requirements for an Elementary or Secondary Education teaching endorsement and a Middle Level Science teaching endorsement.

Students can choose either the Elementary or the Secondary Core to complete the Natural Science Education-Middle Level Science major.

Prerequisites apply

BIOL 171 requires MATH 141 as a prerequisite with a grade \geq C or concurrent enrollment in MATH 141

CHEM 161 requires a prerequisite of MTHD 104 or MATH 107 or MATH 141

PHYS 115 require a prerequisite of MATH 208 or permission of instructor

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

Required Middle Level Science Education Courses

Life Science

BIOL 115	LIFE SCIENCE FOR TEACHERS	5
BIOL 171	BIOLOGY I	5
BIOL 172	BIOLOGY II	5

Earth Science

GEOS 115	EARTH SCIENCE FOR TEACHERS	5
GEOS 204 or GEOS 314	HOT EARTH: PEOPLE AND CLIMATE CHANGE WEATHER FORECASTING	5

Physical Science

CHEM 161 & 161L	GENERAL CHEMISTRY FOR THE HEALTH SCIENCES and GENERAL CHEMISTRY LABORATORY FOR THE HEALTH SCIENCES	5
PHYS 115	INVESTIGATING PHYSICAL SCIENCE	5
PHYS 121	DESCRIPTIVE ASTRONOMY	5

Additional Requirements

EDUC 417	CULTURE OF MIDDLE SCHOOL	3
MATH 141	PRECALCULUS I	5
SCED 390	SCIENCE TEACHING METHODS	5

Required Senior Capstones—must be taken concurrently

SCED 490A	SCIENCE TEACHING CAPSTONE SEMINAR	3
SCED 490B	SCIENCE TEACHING CAPSTONE FIELD APPLICATION	2

Total Credits 58

Education (<http://catalog.ewu.edu/ps/se/>)

Elementary Education Core

There are general education science and social science courses that are strongly recommended for the Elementary Education candidate. See the general requirements section of this catalog. Please see an Education advisor for clarification.

EDUC 304	INTRODUCTION TO ELEMENTARY READING	3
EDUC 303 & EDUC 310 & EDUC 338 & EDUC 340 & EDUC 386A	FOUNDATIONS OF ASSESSMENT and LITERACY METHODS, MANAGEMENT AND ASSESSMENT IN THE ELEMENTARY SCHOOL and LANGUAGE AND SOCIAL STUDIES METHODS 1: INTEGRATED LANGUAGE ARTS FOR ELEMENTARY SCHOOL and LANGUAGE AND SOCIAL STUDIES METHODS 2: INTEGRATED SOCIAL STUDIES FOR ELEMENTARY SCHOOL and FIELD EXPERIENCE AND PRACTICUM	18
EDUC 308 & EDUC 380 & EDUC 381 & EDUC 386B	FOUNDATIONS OF ELEMENTARY CLASSROOM MANAGEMENT and INTEGRATED STEM METHODS 1 and INTEGRATED STEM METHODS 2 and FIELD EXPERIENCE AND PRACTICUM	14
EDUC 423	ELEMENTARY STUDENT TEACHING K-8	12
EDUC 427	GENERAL STUDENT TEACHING K-12 (Variable credit. A minimum of 3 credits are required.)	3-15

Total Credits 50-62

Education (<http://catalog.ewu.edu/ps/se/>)

Secondary Education Core

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
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
EDUC 426	SECONDARY STUDENT TEACHING 7-12	12

Total Credits 33-42

University Competencies and Proficiencies

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

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

Placement and Clearance (<http://catalog.ewu.edu/placement/>)

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

General Education Requirements (<http://catalog.ewu.edu/undergraduate-degree/#generaleducationrequirements>) (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

- explain the disciplinary core ideas of earth and space, life and physical science and guide the learning of others in key principles of each of the science domains outlined in the Next Generation Science Standards;
- incorporate instructional materials and teaching strategies to a community of diverse students.

Breadth Area Core Requirements (BACR)

Humanities and Arts (<http://catalog.ewu.edu/undergraduate-degree/#humanitiesandfineartsgecrtext>)

Natural Sciences (<http://catalog.ewu.edu/undergraduate-degree/#naturalsciencesgecrtext>)

Social Sciences (<http://catalog.ewu.edu/undergraduate-degree/#socialsciensesgecrtext>)

University Graduation Requirements (<http://catalog.ewu.edu/undergraduate-degree/#universitygraduationrequirements>) (UGR)

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

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

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

Minor or Certificate (<http://catalog.ewu.edu/undergraduate-degree/#majorminororcertificateugrtext>)

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

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/undergraduate-degree/#activecatalogruletext>).

Degree Works (<https://inside.ewu.edu/records-and-registration/degree-works/>) calculates based on these two catalog years.

- 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).
- 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 Middle Level Science Education from EWU should be able to do the following:

- apply science and engineering practices in NGSS;
- appropriately respond to potential safety hazards in different learning environments, e.g., laboratory, classroom, field;
- explain how cross-cutting ideas bridge disciplinary boundaries, uniting core ideas throughout the fields of science and engineering;