

College of Science, Technology, Engineering, and Mathematics

Natural Science Education-Middle Level Endorsement BAE

(68 credits)

Why study the BAE in Natural Science?

The BAE Program in Biology prepares the pre-service teacher to earn certification to teach biology in grades 5-12 in the state of Washington. Graduates are very competitive in the job market. The program provides students with a rigorous foundation in biological and chemistry concepts as well as supporting courses in education, including science teaching method courses. Completion of the program requires passing external certification exams and leads to a Secondary Teaching Certification in Washington State with an endorsement in Biology.

Other Degree Options

Minor in Natural Science Elementary

Career Opportunities

Science Teacher, Biology Teacher



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This is an example of a four year class schedule. Academic Advisors are there to help create individualized plans.

First Year	Q1	Q2	Q3
	BACR (5 cr.)	BACR (5 cr.)	Diversity (5 cr.)
	GEOG 115 (GECR) or GEOL 1	General Elective (3 cr.)	General Elective (2 cr.)
	ENGL 101 (5 cr.)	MATH 141 (5 cr.)	General Elective (5 cr.)
			Global (upper-division) (5 cr.)
Second Year	Q5	Q6	Q7
	GEOG 204 (GECR) or 314 (5 c	General Elective (4 cr.)	ENGL 201 (5 cr.)
	CHEM 161 (5 cr.)	BIOL 115 (5 cr.)	PHYS 115 (5 cr.)
MATH 142 (5 cr.)	PHYS 131 (4 cr.)	PHYS 121 (5 cr.)	
	PHYS 161 (1 cr.)		
Third Year	Q9	Q10	Q11
	BACR (5 cr.)	BIOL 172 (5 cr.)	CMST 200 (4 cr.)
	General Elective (Upper Div)	EDUC 417 (3 cr.)	PSYC 304 (5 cr.)
	BIOL 171 (5 cr.)	GEOL 121 (5 cr.)	SCED 390 (2 cr.)
EDUC 201 (3 cr.)	SPED 363 (4 cr.)	SCED 391 (3 cr.)	
Fourth Year	Q13	Q14	Q15
	EDUC 413 (3 cr.)	BACR (5 cr.)	EDUC 426 (12 cr.)
	EDUC 303 (3 cr.)	EDUC 386 (3 cr.)	
	EDUC 309 (3 cr.)	EDUC 427 (3 cr.)	
	EDUC 341 (4 cr.)	SCED 490 (4 cr.)	
	EDUC 386 (3 cr.)		

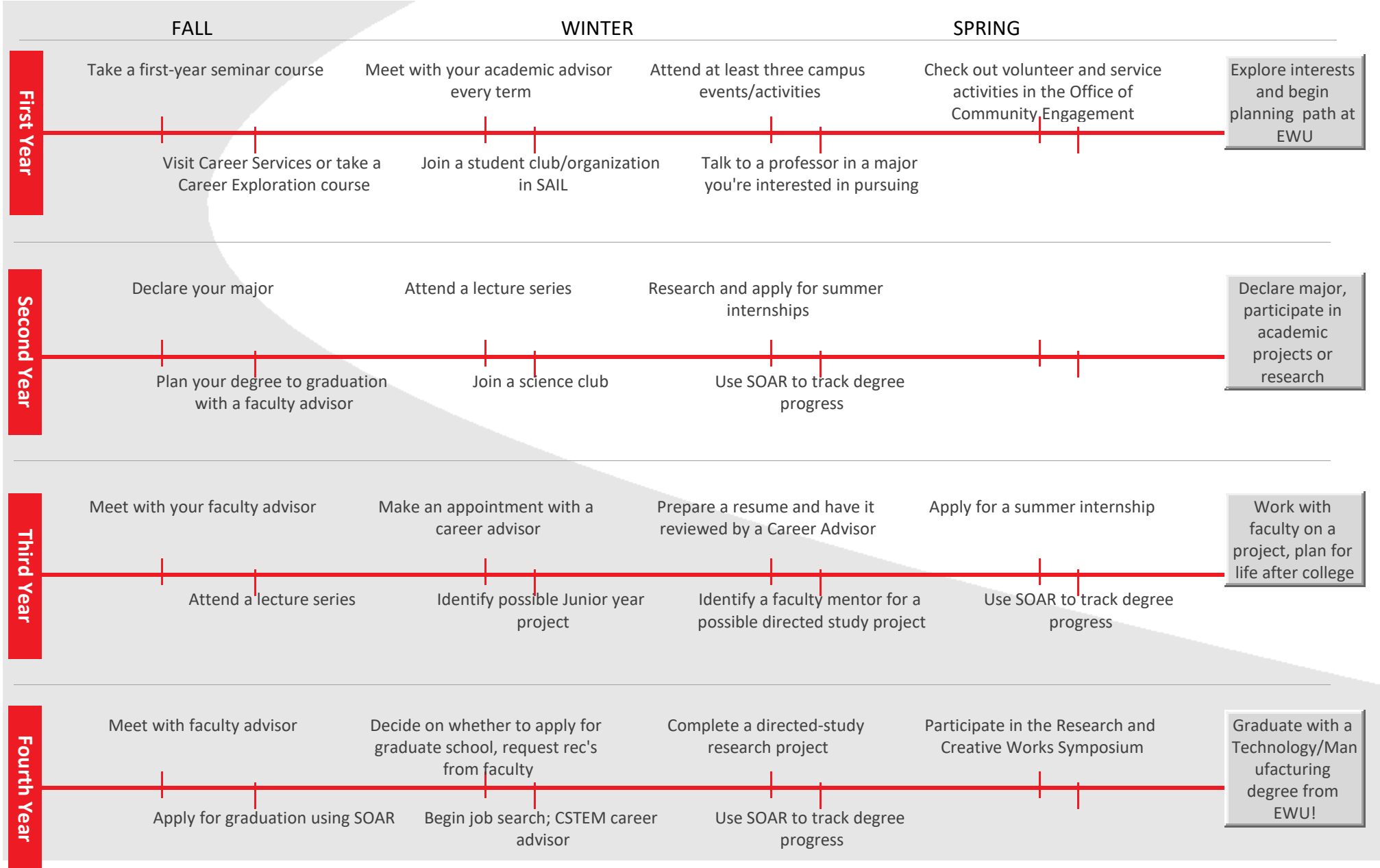
Listed is a Sample Four Year Plan. Individual plans will vary based on placement test scores and class availability.



Flight Plan to Success

The following milestones will help you succeed and improve your experience at EWU.

Natural Science Education-Middle Level Endorsement, BAE College of Science, Technology, Engineering, and Mathematics



Student's name: _____ EWU ID: _____

Bachelor of Arts in Education in Natural Science Education-Middle Level Endorsement
 Secondary Education Core
 2018-2019 Catalog Year

Major Declaration Form: Natural Science Education - Secondary/Middle Level, BAE-NATSC, ELMI

Math proficiency needed: MATH 141

First year courses and prerequisites	Notes	Previously offered **
Q1 BACR (5 cr.)		
Q1 GEOG 115 (GECR) or GEOL 115 (GECR) (5 cr.)		
Q1 ENGL 101 COLL COMP: EXPOSITN & ARGUMNT (5 cr.) Prerequisite: Writing Placement Test or General Advising.	Satisfies: university competencies, writing.	F17, W18, Sp18, Su18
Q2 BACR (5 cr.)		
Q2 General Elective (3 cr.)		
Q2 MATH 141 PRECALCULUS I (5 cr.) Prerequisite: a grade \geq C in MATH 114 or equivalent course or a satisfactory score on the mathematics placement assessment (MPA).	Satisfies: completion of this course with a grade \geq C satisfies the university proficiencies in mathematics.	F17, W18, Sp18, Su18
Q3 Diversity (5 cr.)		
Q3 General Elective (2 cr.)		
Q3 General Elective (5 cr.)		
Q3 Global (upper-division) (5 cr.)		

I have discussed this academic plan with the student listed above. Advisor name: _____ Advisor signature: _____

* See the catalog for prerequisites and other details.

** Future course offerings may differ from the past. Check the course schedule for future courses.

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Second year courses and prerequisites	Notes	Previously offered **
Q5 GEOG 204 (GECR) or 314 (5 cr.)		
Q5 CHEM 161 GEN CHEM FOR HEALTH SCIENCES (5 cr.) <i>Prerequisite: Concurrent enrollment in or completion of MTHD 104 or MATH 107 or MATH 141 or equivalent. A high school chemistry course or CHEM 100 is highly recommended.</i>	Satisfies: ā BACR for natural sciences. Note: Laboratory work is included. A placement exam is given during the first week of classes.	F17, W18, Sp18
Q5 MATH 142 PRECALCULUS MATH II (5 cr.) <i>Prerequisite: MATH 141 or equivalent.</i>	Satisfies: completion of this course with a grade \geq C satisfies the university proficiencies in mathematics.	F17, W18, Sp18, Su18
Q6 General Elective (4 cr.)		
Q6 BIOL 115 INVESTIGATING BIOLOGY (5 cr.)	Satisfies: ā BACR for natural science.	F17, W18
Q6 PHYS 131 INTRODUCTORY PHYSICS I (4 cr.) <i>Prerequisites: MATH 142, concurrent enrollment in PHYS 161 is recommended.</i>	Satisfies: The completion of PHYS 131, PHYS 161 satisfies the BACR for natural sciences, counts as one course. The completion of PHYS 131, PHYS 132, PHYS 161, plus any one of the following: PHYS 162, PHYS 163, PHYS 263 satisfies the BACR for natural scien Note: PHYS 161, the associated laboratory course, is usually required by any program also requiring PHYS 131, but requires separate enrollment.	F17
Q6 PHYS 161 MECHANICS LABORATORY (1 cr.) <i>Prerequisite: MATH 142.</i>		F17, W18
Q7 ENGL 201 COLL COMP: ANALYSIS/RES/DOCMNT (5 cr.) <i>Prerequisite: ENGL 101, Writing Placement Test or general advising.</i>	Satisfies: ūniversity proficiencies, writing.	F17, W18, Sp18, Su18
Q7 PHYS 115 INVESTIGATING PHYSICAL SCIENCE (5 cr.) <i>Prerequisite: MATH 208 or equivalent.</i>	Satisfies: ā BACR for natural sciences.	Sp18
Q7 PHYS 121 DESCRIPTIVE ASTRONOMY (5 cr.) <i>Prerequisite: pre-university basic skills in mathematics.</i>	Satisfies: ā BACR for natural sciences. Note: Laboratory work related to the covered topics is included. May include planetarium sessions.	F17, Sp18, Su18

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Third year courses and prerequisites	Notes	Previously offered **
Q9 BACR (5 cr.)		
Q9 General Elective (Upper Div) (4 cr.)		
Q9 BIOL 171 BIOLOGY I (5 cr.) Prerequisites: concurrent enrollment in MATH 141 or completion of MATH 141 with $\geq C$; students must receive $\geq C$ - to enroll in BIOL 172 and $\geq C$ to enroll in BIOL 270.	Satisfies: a BACR for natural science. Note: course fee.	F17, W18, Sp18
Q9 EDUC 201 INTRO TO EDUCATION (3 cr.)		F17, W18, Sp18, Su18
Q10 BIOL 172 BIOLOGY II (5 cr.) Prerequisite: $\geq C$ - in BIOL 171 and $\geq C$ in MATH 141.	Satisfies: 2nd Natural Sciences BACR if BIOL 171 and BIOL 270 are complete or BIOL 172 and BIOL 270 are completed. Note: course fee.	F17, W18, Sp18
Q10 EDUC 417 CULTURE OF MIDDLE SCHOOL (3 cr.) Prerequisites: EDUC 303; EDUC 308 or EDUC 309.		W18, Su18
Q10 GEOL 121 PHYS GEOL - SURFICIAL PROCESS (5 cr.) Prerequisites: MTHD 104 or equivalent.	Satisfies: the completion of GEOL 121 counts as one course for the BACR in natural science; the completion of GEOL 120 and GEOL 121 counts as two courses for the BACR for natural science. Note: weekly laboratories and one field trip are required.	W18, Sp18
Q10 SPED 363 INTRO TO SPECIAL EDUCATION (4 cr.)		F17, W18, Sp18, Su18
Q11 CMST 200 INTRO TO SPEECH COMMUNICATION (4 cr.)	Note: CMST 200 cannot be taken for credit towards the Communication Studies Majors.	F17, W18, Sp18, Su18
Q11 PSYC 304 EDUCATIONAL PSYCHOLOGY (5 cr.) Prerequisites: PSYC 201 recommended.		F17, W18, Sp18, Su18
Q11 SCED 390 SCIENCE TEACHING METHODS (2 cr.) Prerequisite: EDUC 303 or by permission of the instructor plus upper level major courses. Students study types of science programs, organization of lesson materials, techniques, laboratory safety and evaluation.	Note: designed for BAE Biology, Chemistry, Earth Science, Physics majors and minors as well as those seeking middle level science endorsement.	F17

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Q11	SCED 391 MIDDLE LEVEL AND EARTH AND SPA (3 cr.) Prerequisite: SCED 390 or concurrent enrollment.	Note: This course is designed for students seeking an endorsement to teach middle school science and/or secondary earth and space science. Students must complete >= 70% of program to enroll in this course.	F17
Q13	EDUC 413 MGT/ASSESS CONTENT LTCY SEC (3 cr.) Prerequisites: EDUC 303 and EDUC 309.	Note: Washington State Patrol/FBI fingerprinting clearance.	F17, W18, Sp18, Su18

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Fourth year courses and prerequisites	Notes	Previously offered **
Q13 EDUC 303 FOUNDATIONS OF ASSESSMENT (3 cr.) Prerequisites: ENGL 201; MATH 107 or MATH 208; CMST 200 or proof of equivalence; passing the Washington Education Skill Test-Basic (WEST-B).	Concurrent with EDUC 309	F17, W18, Sp18, Su18
Q13 EDUC 309 FOUNDATIONS SEC CLASSROOM MGMT (3 cr.) Prerequisites: ENGL 201; MATH 107 or MATH 208, CMST 200 or proof of equivalence; passing the Washington Education Skill Test-Basic (WEST-B).		F17, W18, Sp18, Su18
Q13 EDUC 341 SEC STRATEGIES, MGMT, ASSESSMT (4 cr.) Prerequisites: EDUC 413.	Note: Washington State Patrol/FBI fingerprinting clearance.	F17, W18, Sp18
Q13 EDUC 386 FIELD EXPERIENCE AND PRACTICUM (3 cr.) Prerequisite: admission to the Education program.	Note: Washington State Patrol Clearance / FBI Fingerprint Clearance required. A weekly seminar is required. Your schedule must be arranged so time can be spent in a public school classroom during the day.	
Q14 BACR (5 cr.)		
Q14 EDUC 386 FIELD EXPERIENCE AND PRACTICUM (3 cr.) Prerequisite: admission to the Education program.	Note: Washington State Patrol Clearance / FBI Fingerprint Clearance required. A weekly seminar is required. Your schedule must be arranged so time can be spent in a public school classroom during the day.	
Q14 EDUC 427 GENERAL STUDENT TEACHING K-12 (3 cr.) Prerequisite: EDUC 420.	Note: graded Pass/Fail.	F17, W18, Sp18
Q14 SCED 490 MIDDLE LEVEL SCIENCE CAPSTONE (4 cr.) Prerequisites: EDUC 341 and SCED 390.	Satisfies: a university graduation requirement'senior capstone. Note: this is a professional development course for students planning to be middle level science teachers and just prior to student teaching and is a requirements for the BAE in Middle Level Science Major.	W18, Sp18
Q15 EDUC 426 SEC STUDENT TEACHING 7-12 (12 cr.) Prerequisite: EDUC 420 and departmental clearance required prior to registration.	Note: Graded Pass/Fail. Washington State Patrol and FBI clearance must be current. All students must have a minimum overall GPA >= 2.8 in each of the following: major(s), minor(s) and Professional Education Program. All course grades in the student's major	F17, W18, Sp18

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