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

Completion of this major and the General Degree Completion Requirements for Education, Secondary, satisfies the state requirements for a state mathematics teaching endorsement (secondary, grade levels 5–12).

Notes: the above major takes more than 12 quarters at 15–16 credits a quarter; all candidates for certification must pass the NES subject matter test to receive an endorsement for certification purposes.

Prerequisite Grade Policy: students must have earned a grade ≥C in any course that is to be used to satisfy a prerequisite requirement for a subsequent mathematics course offered by the Eastern Washington University Department of Mathematics.

Grade Requirements: students must receive a grade ≥C in each course used to satisfy the requirements of an undergraduate major or minor in mathematics.

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

Required Mathematics/Secondary Courses		
MATH 161	CALCULUS I	5
MATH 162	CALCULUS II	5
MATH 163	CALCULUS III	5
MATH 225	FOUNDATIONS OF MATHEMATICS	5
MATH 231	LINEAR ALGEBRA	5
MATH 241	CALCULUS IV	5
MATH 370	SURVEY OF GEOMETRIES	5
or MATH 470	FOUNDATIONS OF GEOMETRY	
MATH 385	PROBABILITY AND STATISTICAL INFERENCE I	5
MATH 387	REGRESSION CONCEPTS	3
or MATH 485	PROBABILITY AND STATISTICAL INFERENCE II	
MATH 432	RINGS AND POLYNOMIALS	5
MATH 460	CONTINUOUS FUNCTIONS	5
MATH 492	PROBLEM SOLVING SEMINAR	5
Required MATH Elective–choose one from the following		**4-5**
MATH 331	DISCRETE MATHEMATICS WITH APPLICATIONS	
MATH 332	NUMBER THEORY	
MATH 347	INTRODUCTORY DIFFERENTIAL EQUATIONS	
MATH 431	APPLIED GROUP THEORY	
MATH 481	COMPLEX ANALYSIS	
Required MTED Courses		
MTED 425	ASSESSMENT IN THE MATHEMATICS CLASSROOM	3
MTED 476	MATHEMATICAL PROGRESSIONS	3
MTED 478	MATHEMATICAL MODELING IN SCHOOLS	3
Required Senior Capstone		
MTED 490B	SENIOR CAPSTONE: SECONDARY PRACTICUM	5
Total Credits		**76-77**

School of Education (http://catalog.ewu.edu/ps/se/)

Secondary Education Core		
EDUC 303	FOUNDATIONS OF ASSESSMENT	15
& EDUC 309	and FOUNDATIONS OF SECONDARY CLASSROOM MANAGEMENT	
& EDUC 341	and SECONDARY STRATEGIES, MANAGEMENT, ASSESSMENT	
& EDUC 386A	and FIELD EXPERIENCE AND PRACTICUM	
& EDUC 413	and CONTENT AREA LITERACY: MANAGEMENT AND ASSESSMENT FOR SECONDARY EDUCATION CANDIDATES	

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 5-12	12
Total Credits		**33-42**

Plan of Study

The following plan of study is for a student with zero credits. Individual students may have different factors such as: credit through transfer work, Advanced Placement, Running Start, or any other type of college-level coursework that requires an individual plan.

Courses may be offered in different terms and not all courses are offered every term, checking the academic schedule is paramount in keeping an individual plan current. There may be some courses that have required prerequisites not listed in the plan, review the course descriptions for information. **Students should connect with an advisor to ensure they are on track to graduate.**

All Undergraduate students are required to meet the Undergraduate Degree Requirements (http://catalog.ewu.edu/undergraduate-degree/).

First Year					
Fall Quarter	**Credits**	**Winter Quarter**	**Credits**	**Spring Quarter**	**Credits**
ENGL 101	5	ENGL 201	5	MATH 163	5
MATH 161	5	MATH 162	5	Global Studies - graduation requirement[1]	5
Humanities & Arts BACR 1[1]	5	Humanities & Arts BACR 2[1]	5	Social Science BACR 1[1]	5
	15		**15**		**15**
Second Year					
Fall Quarter	**Credits**	**Winter Quarter**	**Credits**	**Spring Quarter**	**Credits**
EDUC 201	3	MATH 231	5	MATH 432	5
MATH 225	5	MATH 370 or 470	5	Mathematics Elective[2]	5
MATH 241	5	SPED 363	4	Social Science BACR 2[1]	5
PSYC 204	5				
	18		**14**		**15**
Third Year					
Fall Quarter	**Credits**	**Winter Quarter**	**Credits**	**Spring Quarter**	**Credits**
MATH 385	5	CMST 200, 201, or 340	4-5	MATH 492	5
MTED 425	3	MATH 387 or 485	3-5	MTED 478	3
MTED 476	3	MATH 460	5	Diversity - graduation requirement[1]	5
Natural Science BACR 1[1]	5			Natural Science BACR 2[1]	5
	16		**12-15**		**18**
Fourth Year					
Fall Quarter	**Credits**	**Winter Quarter**	**Credits**	**Spring Quarter**	**Credits**
EDUC 303	3	EDUC 386B	5	EDUC 426	12
EDUC 309	3	EDUC 427	5		
EDUC 341	3	MTED 490B (Senior Capstone - graduation requirement)	5		
EDUC 386A	3				
EDUC 413	3				
	15		**15**		**12**

Total Credits 180-183

1 University Graduation Requirements (UGR) and Breadth Area Course Requirements (BACR) courses may be less than 5 credits and additional credits may be required to reach the required 180 total credits needed to graduate. Students should connect with an advisor to ensure they are on track to graduate.

2 Required MATH Elective–choose one from the approved list.

University Competencies and Proficiencies

English (http://catalog.ewu.edu/undergraduate-degree/#newitemtext)
Quantitative and Symbolic Reasoning (http://catalog.ewu.edu/undergraduate-degree/#mathcompproficienciestext)
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/#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 (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/#socialsciencesgecrtext)

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

Diversity Course List (http://catalog.ewu.edu/undergraduate-degree/#cultureandgenderdiversityintheuslisttext)
World Language (http://catalog.ewu.edu/undergraduate-degree/#worldlanguagetext) (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 (http://catalog.ewu.edu/archives/) to determine *two important catalog years*.
Requirements in Degree Works (https://inside.ewu.edu/records-and-registration/degree-works/) are based on these two catalog years:

a. 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).
b. The catalog *in effect at the time the student declares a major or minor* is used to determine the program requirements.

Students who earn a BAE in Mathematics/Secondary from EWU should have:

- a sensitivity and ability to respond to the mathematical thinking of secondary students;
- a strong ability to reason mathematically and develop proofs with understanding;
- ability to critically read, analyze, evaluate, transform, and implement mathematics education literature;
- applications of pedagogical content knowledge for secondary mathematics in planning and teaching;
- habits of mind to continue improving teaching practices that support mathematics learning;
- the values, dispositions, and habits of mind of a community of mathematicians;
- understanding of foundational content of modern mathematics and its applications;
- understanding of mathematical learning progressions and connections within secondary mathematics.