

MATHEMATICS EDUCATION - ELEMENTARY/MIDDLE LEVEL, BACHELOR OF ARTS IN EDUCATION (BAE)

Students declaring this major must select one of two concentrations for teaching endorsement: Elementary Concentration or Secondary Concentration. Regardless of the concentration selected, students must complete all required courses within the major.

Elementary Concentration:

The Elementary Concentration prepares students for an Elementary Generalist teaching endorsement (all subjects, grades K–8). Students must complete all prerequisite and required courses for the elementary education program and pass the NES Elementary Subtests I and II to qualify for teacher certification.

Students who wish to add a Middle Level Mathematics endorsement (adding mathematics only, grades 4–9) must also pass the NES Middle Grades Mathematics Test.

Secondary Concentration:

The Secondary Concentration is intended for students seeking a Middle Level Mathematics teaching endorsement only (mathematics only, grades 4–9). Students must complete all prerequisite and required courses for the secondary education program and pass the NES Middle Grades Mathematics Test to qualify for teacher certification.

Elementary Education Program Prerequisites

All prerequisite courses must have been completed within the last 6 years.

A grade \geq B- in all prerequisite courses is required for admission to the Education program.

ART 390	ART IN THE ELEMENTARY SCHOOL	3
CMST 201 or CMST 340	PUBLIC SPEAKING INTERCULTURAL COMMUNICATION	5
EDUC 201	INTRODUCTION TO EDUCATION	3
ENGL 201	COLLEGE COMPOSITION: ANALYSIS, RESEARCH AND DOCUMENTATION	5
MATH 208	MATHEMATICS FOR ELEMENTARY TEACHERS I	5
MATH 209	MATHEMATICS FOR ELEMENTARY TEACHERS II	4
MATH 210	MATHEMATICS FOR ELEMENTARY TEACHERS III	4
MUSC 450	INTEGRATING MUSIC INTO ELEMENTARY CLASSROOM COURSES	3
PHED 390	HEALTH AND PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOLS	3
PSYC 204	EDUCATIONAL PSYCHOLOGY	5
SOST 300	PEOPLES AND GOVERNANCE OF THE PACIFIC NORTHWEST	5
SPED 363	INTRODUCTION TO SPECIAL EDUCATION	4

Total Credits **49**

Prerequisite Grade Policy: Students must have earned a grade \geq 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 \geq C in each course used to satisfy the requirements of an undergraduate major or minor in mathematics.

Teaching Endorsements: Students seeking to be elementary education (all subjects, grades k-8) endorsed will take all major courses listed and also complete all elementary education program/course requirements.

OR

Students seeking to be middle level mathematics endorsed (grade 4-9, mathematics only) will take all major courses listed and also complete all secondary education program/course requirements.

OR

Students seeking to K-9 math endorsement (all subjects, grades k-8, and Math 4-9) will take all major courses listed and also complete all elementary education program/course requirements and pass the NES Middle Grades Mathematics Test.

Required Courses

Students can choose either elementary education concentration (grades K-8, certified all subjects) if they want to be elementary education endorsed or the secondary education concentration if they want to be only endorsed in middle level mathematics (grades 4-9, math only). Students in this major must also complete the following courses along with either the elementary education concentration or the secondary education concentration courses.

MATH 208	MATHEMATICS FOR ELEMENTARY TEACHERS I	5
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MATH 209	MATHEMATICS FOR ELEMENTARY TEACHERS II	4
MATH 210	MATHEMATICS FOR ELEMENTARY TEACHERS III	4
MATH 311	FUNCTIONS AND RELATIONS FOR K-8 TEACHERS	5
MATH 312	GEOMETRY FOR THE K-8 TEACHER	5
MATH 411	DISCRETE MATHEMATICS FOR K-8 TEACHERS	4
MATH 417	ADVANCED MATHEMATICS FOR MIDDLE SCHOOL TEACHERS	5
MATH 420	PROBLEM SOLVING FOR K-8 TEACHERS	4

Required Mathematics Education Courses

MTED 477	MATHEMATICAL DISCUSSIONS	4
MTED 290	EARLY MATH PRACTICUM	3
MTED 400	MATHEMATICS STUDENT TEACHING	1
MTED 425	ASSESSMENT IN THE MATHEMATICS CLASSROOM	3
MTED 476	MATHEMATICAL PROGRESSIONS	4

Select Education Concentration**53-57**

Elementary Education = 53 credits, Secondary Education = 57 credits

Elementary Education Concentration

EDUC 303	FOUNDATIONS OF ASSESSMENT	
EDUC 304	INTRODUCTION TO ELEMENTARY READING	
EDUC 308	FOUNDATIONS OF ELEMENTARY CLASSROOM MANAGEMENT	
EDUC 310	LITERACY METHODS, MANAGEMENT AND ASSESSMENT IN THE ELEMENTARY SCHOOL	
EDUC 338	LANGUAGE AND SOCIAL STUDIES METHODS 1: INTEGRATED LANGUAGE ARTS FOR ELEMENTARY SCHOOL	
EDUC 340	LANGUAGE AND SOCIAL STUDIES METHODS 2: INTEGRATED SOCIAL STUDIES FOR ELEMENTARY SCHOOL	
EDUC 380	INTEGRATED STEM METHODS 1	
EDUC 381	INTEGRATED STEM METHODS 2	
EDUC 386A	FIELD EXPERIENCE 1	
EDUC 386B	FIELD EXPERIENCE 2	
EDUC 423	FULL-TIME STUDENT TEACHING	
EDUC 386C	FIELD EXPERIENCE 3	

Secondary Education Concentration

EDUC 231	FOUNDATIONS OF INSTRUCTION AND ASSESSMENT	
EDUC 232	FOUNDATIONS OF CLASSROOM COMMUNITY AND CULTURE	
EDUC 233	FOUNDATIONS OF TEACHING, LEARNING, AND MOTIVATION IN SCHOOL CONTEXTS	
EDUC 234	UNDERSTANDING EDUCATION IN THE US	
SOST 300	PEOPLES AND GOVERNANCE OF THE PACIFIC NORTHWEST	
EDUC 331	SECONDARY APPLIED INSTRUCTION AND ASSESSMENT	
EDUC 332	PRACTICES OF CLASSROOM COMMUNITY AND CULTURE IN SECONDARY CLASSROOMS	
EDUC 431	DESIGNING EQUITABLE LEARNING IN SECONDARY CLASSROOMS	
EDUC 434	PROFESSIONAL PRACTICE: COLLABORATION AND PARTNERSHIPS	

Field Experience

EDUC 386A	FIELD EXPERIENCE 1	
EDUC 386B	FIELD EXPERIENCE 2	
EDUC 386C	FIELD EXPERIENCE 3	
EDUC 423	FULL-TIME STUDENT TEACHING	

Required Senior Capstone

MTED 490A	SENIOR CAPSTONE: ELEMENTARY PRACTICUM	5
or MTED 490B	SENIOR CAPSTONE: SECONDARY PRACTICUM	

Total Credits**109-113**

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 could be offered in different terms, checking the academic schedule is paramount in keeping an individual plan current. **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 (<https://catalog.ewu.edu/undergraduate-degree/>).

First Year			
Fall Quarter	Credits Winter Quarter	Credits Spring Quarter	Credits
ENGL 101	5 EDUC 201	3 ART 390	3
MATH 208	5 ENGL 201	5 MATH 210	4
Humanities & Arts BACR 1 ¹	5 MATH 209	4 Humanities & Arts BACR 2 ¹	5
	Natural Science BACR 1 ¹	5 Social Science BACR 1 ¹	5
	15	17	17
Second Year			
Fall Quarter	Credits Winter Quarter	Credits Spring Quarter	Credits
MATH 311	5 MATH 411	4 MATH 417	5
MATH 312	5 MUSC 450	3 MATH 420	4
MTED 476	4 PHED 390	3 MTED 477	4
SPED 363	4 PSYC 204	5 Natural Science BACR 2 ¹	5
	18	15	18
Third Year			
Fall Quarter	Credits Winter Quarter	Credits Spring Quarter	Credits
CMST 201	5 EDUC 304	3 EDUC 303	3
MTED 290	3 Social Science BACR 2 ¹	5 EDUC 310	4
MTED 425	3 Global Studies - graduation requirement ¹	5 EDUC 338	4
SOST 300 (Diversity - graduation requirement)	5	EDUC 340	4
		EDUC 386A	2
	16	13	17
Fourth Year			
Fall Quarter	Credits Winter Quarter	Credits Spring Quarter	Credits
EDUC 308	3 EDUC 386C ²	5 EDUC 423	15
EDUC 380	4 MTED 490A (Senior Capstone - graduation requirement)	5 MTED 400	1
EDUC 381	4 Elective - minor or general elective ²	2	
EDUC 386B	2		
	13	12	16
Total Credits 187			

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 EDUC 386C is a variable credit course and can be taken as 7 credits, instead of 5 credits in the winter quarter of the fourth year. If this EDUC 386C is taken for 7 credits, then there is no need for 2 credit of elective in winter quarter of the fourth year.

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 could be offered in different terms, checking the academic schedule is paramount in keeping an individual plan current. **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 (<https://catalog.ewu.edu/undergraduate-degree/>).

First Year			
Fall Quarter	Credits Winter Quarter	Credits Spring Quarter	Credits
ENGL 101	5 EDUC 231	3 MATH 210	4
MATH 208	5 ENGL 201	5 EDUC 232	3
Humanities & Arts BACR 1 ¹	5 MATH 209	4 Humanities & Arts BACR 2 ¹	5

		Elective - minor or general elective	5	Social Science BACR 1 ¹	5
		15	17		17
Second Year					
Fall Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
EDUC 233 (Social Science BACR 2)	4	EDUC 234	3	MATH 417	5
MATH 311	5	MATH 411	4	MATH 420	4
MATH 312	5	SOST 300 (Diversity - graduation requirement)	5	MTED 477	4
Elective - minor or general elective	2	Elective - minor or general elective	5	Natural Science BACR 1 ¹	5
		16	17		18
Third Year					
Fall Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
MTED 425	3	MTED 290	3	EDUC 331	4
MTED 476	4	Global Studies - graduation requirement ¹	5	EDUC 332	4
Natural Science BACR 2 ¹	5	Elective - minor or general elective	5	EDUC 386A	2
Elective - minor or general elective	5	Elective - minor or general elective	5	EDUC 386B	2
		17	18		12
Fourth Year					
Fall Quarter	Credits	Winter Quarter	Credits		
EDUC 386C	5	EDUC 423	15		
EDUC 431	4	MTED 400	1		
EDUC 434	3				
MTED 490A or 490B (Senior Capstone - graduation requirement)	5				
		17	16		

Total Credits 180

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.

General Education Requirements (<https://catalog.ewu.edu/undergraduate-degree/#generaleducationrequirementstext>) (GER)

- Minimum Quarter Credits—180 cumulative credit hours
 - 60 upper-division credits (300 level or above)
 - 45 credits in residence (attendance) at EWU, with at least 15 upper-division credits in major in residence at EWU
- Minimum Semester Credits—120 cumulative credit hours
 - 40 upper-division credits (300 level or above)
 - 30 credits in residence (attendance) at EWU, with at least 10 upper-division credits in major in residence at EWU
- Minimum Cumulative GPA ≥ 2.0

University Competencies and Proficiencies

Writing (<https://catalog.ewu.edu/undergraduate-degree/#newitemtext>)

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

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

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

Breadth Area Core Requirements (BACR)

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

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

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

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

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

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

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

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

World Language (<https://catalog.ewu.edu/undergraduate-degree/#worldlanguagetext>) (for Bachelor of Arts)

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

Use the Catalog Archives (<https://catalog.ewu.edu/archives/>) to determine *two important catalog years*.

1. The catalog *in effect at the student's first term* of current matriculation is used to determine **BACR** (Breadth Area Core 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 earn a BAE in Mathematics Education - Elementary/Middle Level from EWU should be able to:

- describe and demonstrate an ability to use the Mathematical Practices (CCSSM) and a productive disposition as a student and teacher of mathematics;
- demonstrate and apply in the classroom a profound understanding of fundamental mathematics within the K–8 curriculum, of how these topics progress within the K–8 range, of how these topics extend and relate to the mathematics in the secondary curriculum, and of the fundamental concepts in the curriculum in the secondary curriculum and beyond;
- demonstrate and apply in the classroom a deep understanding of how students learn mathematics and of the pedagogical knowledge specific to mathematics teaching and learning.

Review School of Education for additional Program Learning Outcomes related to certification requirements.