

MATHEMATICS/ELEMENTARY MAJOR AND MIDDLE LEVEL ENDORSEMENT OPTION, BACHELOR OF ARTS IN EDUCATION (BAE)

Completion of this major and the General Degree Completion Requirements for Education, Elementary, satisfies the state requirements for a generalist (multiple subject) Elementary Education teaching endorsement.

Notes:

- computer literacy proficiency is required;
- it can be demonstrated by CPLA 100 and CPLA 101 test, by CPLA 100 and CPLA 101 course credits or by CPLA 120 course credits;
- this proficiency must be completed prior to enrollment in MATH 311.

Required Elementary Education Core

30-hour multicultural education field requirement		
ART 390	ART IN THE ELEMENTARY SCHOOL	3
EDUC 200 & EDUC 303 & EDUC 308	ADMISSION TO TEACHER EDUCATION and FOUNDATIONS OF ASSESSMENT and FOUNDATIONS OF ELEMENTARY CLASSROOM MANAGEMENT (these three courses must be taken concurrently)	7
EDUC 201	INTRODUCTION TO EDUCATION	3
EDUC 304	INTRODUCTION TO ELEMENTARY READING	3
EDUC 310	LITERACY METHODS, MANAGEMENT AND ASSESSMENT IN THE ELEMENTARY SCHOOL	4
EDUC 338 & EDUC 339	LANGUAGE ARTS METHODS, MANAGEMENT AND ASSESSMENT IN THE ELEMENTARY SCHOOL and SOCIAL STUDIES AND SCIENCE METHODS, MANAGEMENT AND ASSESSMENT IN THE ELEMENTARY SCHOOL (must be taken concurrently)	9
EDUC 420	ADMISSION TO PROFESSIONAL CANDIDACY	1
EDUC 423	ELEMENTARY STUDENT TEACHING K-8	15
MATH 212	STRUCTURE OF ELEMENTARY MATH II	5
MTED 390	METHODS OF TEACHING ELEMENTARY SCHOOL MATHEMATICS	5
MUSC 450	INTEGRATING MUSIC INTO ELEMENTARY CLASSROOM COURSES	3
PHED 390	HEALTH AND PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOLS	3
PSYC 304	EDUCATIONAL PSYCHOLOGY	5
SPED 363	INTRODUCTION TO SPECIAL EDUCATION	4

Required Mathematics/Elementary Major and Middle Level Endorsement Option Courses

Note: MATH 211 is a prerequisite for MATH 212. MATH 212 and MTED 390 are required courses in the Elementary Education Core and can only be counted once.

EDUC 417	CULTURE OF MIDDLE SCHOOL	3
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MATH 114	ALGEBRA CONCEPTS	5
MATH 211	STRUCTURE OF ELEMENTARY MATH I	5
MATH 212	STRUCTURE OF ELEMENTARY MATH II	
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 413	DATA ANALYSIS AND PROBABILITY FOR MIDDLE LEVEL TEACHERS	3
MATH 416	CALCULUS FOR MIDDLE LEVEL TEACHERS	4
MATH 420	PROBLEM SOLVING FOR K-8 TEACHERS	4
MTED 390	METHODS OF TEACHING ELEMENTARY SCHOOL MATHEMATICS	
MTED 412	ADVANCED METHODS OF TEACHING K-8 MATHEMATICS	5
MTED 490A	SENIOR CAPSTONE: ELEMENTARY PRACTICUM	5
Total Credits		118

For information on General Education, see Undergraduate Degree (<http://catalog.ewu.edu/archives/2015-2016/undergraduate-degree>).

Student Learning Outcomes—students will

Note: see Education for additional SLOs.

- understand and apply the mathematical processes of problem solving, reasoning, communicating and connecting, use varied representations to support and deepen mathematical understanding, and embrace technology as an essential tool for teaching and learning mathematics;
- demonstrate computational proficiency using various strategies, including a conceptual understanding of numbers,
- relationships among number and number systems and meanings of operations with all real numbers;
- understand relationships among quantities, functions, and the analysis of change, and demonstrate a conceptual understanding of and procedural facility with fundamental single variable calculus;
- use spatial visualization and geometric modeling to explore and analyze geometric figures and apply and use measurement concepts and tools;
- demonstrate an understanding of concepts and practices related to data analysis, statistics and probability, and apply the fundamental ideas of discrete mathematics in the formulation and solution of problems;
- possess a deep understanding of how students learn mathematics and of the pedagogical knowledge specific to mathematics teaching and learning.