

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:

- 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 ;
- the above major takes more than 12 quarters at 15–16 credits a quarter;
- effective 09.01.14 all candidates for certification must pass the NES subject matter test to receive an endorsement for certification purposes.

Required Secondary Education Core

30–hour multicultural education field requirement

EDUC 200 & EDUC 303 & EDUC 309	ADMISSION TO TEACHER EDUCATION and FOUNDATIONS OF ASSESSMENT and FOUNDATIONS OF SECONDARY CLASSROOM MANAGEMENT (these three courses must be taken concurrently)	7
EDUC 201	INTRODUCTION TO EDUCATION	3
EDUC 341	SECONDARY STRATEGIES, MANAGEMENT, ASSESSMENT	4
EDUC 413	CONTENT AREA LITERACY: MANAGEMENT AND ASSESSMENT FOR SECONDARY EDUCATION CANDIDATES	4
EDUC 420	ADMISSION TO PROFESSIONAL CANDIDACY	1
EDUC 426	SECONDARY STUDENT TEACHING 7-12	15
PSYC 304	EDUCATIONAL PSYCHOLOGY	5
SPED 363	INTRODUCTION TO SPECIAL EDUCATION	4

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
MATH 385	PROBABILITY AND STATISTICAL INFERENCE I	5
MATH 387	REGRESSION CONCEPTS	3
MATH 432	RINGS AND POLYNOMIALS	5
MATH 460	CONTINUOUS FUNCTIONS	5
MATH 492	PROBLEM SOLVING SEMINAR	5

Required MATH Elective—choose from the following.

MATH 331	DISCRETE MATHEMATICS WITH APPLICATIONS	5
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MATH 332	NUMBER THEORY	
MATH 347 & MATH 307	INTRODUCTORY DIFFERENTIAL EQUATIONS and MATHEMATICAL COMPUTING LABORATORY III	
MATH 431	APPLIED GROUP THEORY	
MATH 481	COMPLEX ANALYSIS	

Required MTED Courses

MTED 392	METHODS OF TEACHING SECONDARY MATH I	3
MTED 393	METHODS OF TEACHING SECONDARY MATHEMATICS II	3
MTED 490B	SENIOR CAPSTONE: SECONDARY PRACTICUM	5
MTED 493	METHODS OF TEACHING SECONDARY MATHEMATICS III	3

Total Credits 120

For information on General Education, see Undergraduate Degree (<http://catalog.ewu.edu/archives/2016-2017/undergraduate-degree>) .

Student Learning Outcomes—students will

Note: see Education for additional SLOs.

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