## Curriculum Guide

# **B.S. Mathematics Secondary Teaching Area**

#### 2023-24

#### DEPARTMENT PERSONNEL

*Chair* Nicholas Madhiri, Ph.D. *Faculty* Nathanial Adu, Ph.D. Jonathan Duarte, Ph.D. Jared Rice, Ph.D. Gerald Springer, Ph.D.

#### CONTACT

admissions@swau.edu nmadhiri@swau.edu (817) 202-6209 Individuals who teach secondary math often hold a bachelor's degree in mathematics - secondary teaching and an undergraduate secondary teacher certificate or equivalent. The bachelor's degree in mathematics for secondary teaching program will prepare students to teach a wide range of mathematics courses. It includes courses such as algebra, calculus, logic, geometry, linear algebra, statistics and others. Our graduates are qualified for secondary teaching positions in mathematics.

#### Job Market

Students trained as secondary school teachers of Mathematics will receive the preparation needed to inspire a new generation to pursue a wide range careers in which high-level mathematical skills are crucial. Currently, there is a shortage of graduates with this kind of academic preparation. National interest in STEM (Science, Technology, Engineering and Mathematics) areas has highlighted the need for graduates with this kind of academic preparation.

#### Job Outlook

Employment of secondary school teachers is expected to grow by seven percent from 2010 to 2020. The employment growth is expected due to declines in student-to-teacher ratios and increases in enrollment. The United States Department of Labor reported that math is one of the subjects lacking qualified teachers in many rural and urban schools, so job prospects is highly favorable for secondary math teachers.

#### Earnings

The Bureau of Labor Statistics, which is a part of the United States Department of Labor, reports that in May 2018, the median income for secondary school teachers was between \$37,780-\$97,500 per year. Of course, the potential earning of secondary school teachers is affected by geographic location and by educational preparation. And secondary school teachers with advanced degrees have higher earnings

100 W. Hillcrest Street Keene TX 76059

(800) 433-2240 toll-free (817) 202-6794 phone www.swau.edu

#### Teaching Certification Program

The following Mathematics major is for teaching certification only. Requirements for certification are listed in the Education section of this Bulletin.

You must make formal application for admittance to the Teacher Education Program. Applications are available at the Education Department office.

Content Area + Teaching Certification

#### **Required Courses**

Item #	Title	Credits
MATH 141	Introduction to Probability and Statistics	3
MATH 181	Calculus I	4
MATH 182	Calculus II	4
MATH 283	Calculus III	4
MATH 211	Logic and Set Theory	3
MATH 341	Geometry	3
MATH 361	Introduction to Linear Algebra	3
MATH 431	Abstract Algebra	3
MATH 484	Mathematics Seminar	1
MATH 485	Portfolio	1
	Mathematics Secondary Teaching 6 Hours Upper Division Electives	6
	Sub-Total Credits	35

### Sample 4 Year Curriculum

#### **General Education Requirements**

To view general education requirements for this major please visit: https://catalog.swau.edu/core-curriculum-for-a-bachelors-degree

First Year Firs	t Semester		First Year Sec	cond Semester		
ltem #	Title	Credits	ltem #	Title	Credits	
MATH 181	Calculus I	4	MATH 182	Calculus II	4	
HIST 111	United States History to 1865	3	HIST 112	United States History from 1865	3	
	English Composition GE Curriculum Guide	3		Communication GE Requirement	3	
RELT 101	Christian Beliefs	3		Fine Arts GE Requirement	3	
POLS 211	National and Texas Constitutions	3	RELT 201	Bible Study Methods	3	
	Sub-Total Credits	16		Sub-Total Credits	16	
Second Year First Semester			Second Year	Second Year Second Semester		
ltem #	Title	Credits	ltem #	Title	Credits	
MATH 283	Calculus III	4	MATH 361	Introduction to Linear Algebra	3	
MATH 211	Logic and Set Theory	3		Mathematics Upper Division Electives	3	
ENGL 220	Research Writing	3		Life and Physical Science GE Requirement	4	
	Life and Physical Science GE Requirement	4	EDUC 254	Introduction to the Teaching Profession	3	
UNIV 111	Wellness for Life	2	PSYC 220	Human Growth & Development	3	
	Sub-Total Credits	16		Sub-Total Credits	16	
Third Year First Semester			Third Year Se	Third Year Second Semester		
ltem #	Title	Credits	ltem #	Title	Credits	
MATH 341	Geometry	3		Mathematics Upper Division Electives	3	
RELH 230	History of the Seventh-day Adventist Church	3		Mathematics Upper Division Electives	3	
MATH 431	Abstract Algebra	3	EDUC 322	Child and Adolescent Psychology	3	
EDUC 312	Educational Psychology	3	EDUC 326	Learners With Exceptionalities	3	
EDUC 385	Philosophy of Christian Education	3	EDUC 350	Digital Literacy Proficiency	3	
	Kinesiology GE Requirement	1		Kinesiology GE Requirement	1	
	Sub-Total Credits	16		Sub-Total Credits	16	
Fourth Year First Semester		Fourth Year S	Fourth Year Second Semester			
ltem #	Title	Credits	ltem #	Title	Credits	
MATH 141	Introduction to Probability and Statistics	3	MATH 485	Portfolio	1	
MATH 484	Mathematics Seminar	1	HIST 242	Historical and Political Geography	3	
	Religion GE Requirement	3	EDUC 434	Classroom Assessment	3	
	ENGL 231 or ENGL 232	3	EDUC 436	Classroom Management	3	
EDUC 418	Legal Foundations of Education	3	EDUC 485	Directed Teaching in Secondary School	6	
EDUC 450	Teaching Methods	3		Sub-Total Credits	16	
	Sub-Total Credits	16				

June 2023

Southwestern Adventist University-Office of Academic Administration