

College of Science  
 Bachelor of Science: Mathematics Major  
 Mathematics Education Option (Masters Track)  
 For students graduating in calendar year 2009

**I. Mathematics Courses (50 credits)**

<u>Required Courses (44)</u>	Credits	Grade
Math 1205 Calculus	(3)	( )
Math 1206 Calculus	(3)	( )
Math 1114 Elementary Linear Algebra	(2)	( )
Math 1224 Vector Geometry	(2)	( )
Math 2214 Intro. to Diff. Equations	(3)	( )
Math 2224 Multivariable Calculus	(3)	( )
Math 2644 Math Tutoring	(1)	( )
Math 3034 Proofs (WI)	(3)	( )
Math 3124 Modern Algebra	(3)	( )
Math 3224 Advanced Calculus	(3)	( )
Math 4044 History of Math (WI)	(3)	( )
Math 4334 College Geometry	(3)	( )
Math 4625 Math for Secondary Teachers I	(3)	( )
Math 4626 Math for Secondary Teachers II	(3)	( )
Math 4644 Secondary Sch Math with Tech	(3)	( )
Math 4654 Capstone Thesis and Seminar	(1)	( )
Math 4664 Senior MAED Seminar	(2)	( )

Elective Courses (6): Select six credit hours from the following list of math courses: Math 3134, 3144, 3214, 3414, 4024, 4124, 4134, 4144, 4164, 4225 - 4226, 4344, 4425 - 4426, 4454. All course prerequisites for courses listed in **I** are either required courses for this option or are themselves electives listed in **I**.

Math \_\_\_\_\_ (3) ( )  
 Math \_\_\_\_\_ (3) ( )

The grades in the above mathematics courses determine the in-major GPA.

**II. Computer Science (3 credits)**

CS 1044, CS 1054, or CS 1705 (3) ( )

**III. Statistics (3 credits)**

Stat 4705 Probability and Statistics (3) ( )

The following substitutions are allowed: Stat 4105, Stat 4714

**IV. Education (13 credits)**

EDCI 3724 Teaching Math I (4) ( )

EDCI 4124 Psychological Foundations of Education<sup>1</sup> (3) ( )

or EDCI 5114 Advanced Educational Psychology

EDCI 5264 Content Area Reading (3) ( )

EDCI 5554 Education of Exceptional Learners (3) ( )

Praxis I&II must be passed before a Bachelor of Science degree in Mathematics is granted.

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<sup>1</sup> Psyc 2004 Introductory Psychology is a prerequisite for EDCI 4124.

**V. University Core Curriculum** (32 - 38 credits): All courses used for the core must be on the approved University Core Curriculum list. Each of Area 2 and Area 3 requires 6 hours. Area 4 requires a single eight-hour laboratory sequence in Biology, Chemistry, Geology, or Physics. The two-hour lab requirement for this option is **not** waived because of state certification requirements. Mathematics majors must take Math 1205-1206 or its equivalent to satisfy the Area 5 core requirement.

Writing and Discourse (Area 1: 6 credits) \_\_\_\_\_ ( 3 ) ( )  
 \_\_\_\_\_ ( 3 ) ( )

Ideas, Cultural Traditions, and Values (Area 2: 6 credits) \_\_\_\_\_ ( 3 ) ( )  
 \_\_\_\_\_ ( 3 ) ( )

Society and Human Behavior (Area 3: 6 credits) \_\_\_\_\_ ( 3 ) ( )  
 \_\_\_\_\_ ( 3 ) ( )

Scientific Reasoning and Discovery (Area 4: 8 credits) \_\_\_\_\_ ( 4 ) ( )  
 \_\_\_\_\_ ( 4 ) ( )

Quantitative and Symbolic Reasoning (Area 5: met by major)

Creativity and Aesthetic Experience (Area 6: 3 credits) \_\_\_\_\_ ( 3 ) ( )

Critical Issues in a Global Context (Area 7: 3 credits) \_\_\_\_\_ ( 3 ) ( )

For students entering prior to Fall 2005 (Writing Intensive courses: 6 credits) Math 3034 ( 3 ) ( )  
 Math 4044 ( 3 ) ( )

For students entering Fall 2005 or later the ViEWs Requirement is met by the required courses in the major.

Foreign Languages: The equivalent of three years of one foreign language in secondary school. \_\_\_\_\_ ( 3 ) ( )  
 \_\_\_\_\_ ( 3 ) ( )

Students who complete two years of a single foreign language in high school are strongly urged to complete the second semester (1106) of that foreign language very early in their program of study. Students who will be taking first and second semesters (1105-1106) of a foreign language are encouraged to schedule it in their freshman and sophomore years.

NOTE: Students who completed fewer than two years of a single foreign in high school must complete six semester hours of one foreign language at the college level and these six credits do not count toward the 120 hours required for graduation in the College of Science.

**VI. Electives** (5 credits minimum):

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Each student is required to participate in the department's Outcomes Assessment procedures as determined by each year's Undergraduate Program Committee and approved by the Head.

**VII. Satisfactory progress toward the B.S. in Mathematics:**

Upon having attempted 36 semester credits, the student must have completed 12 credits of the University Core. Upon having attempted 72 credits, the student must have completed 24 credits of the University Core.

**VIII. Outcomes Assessment:**

1. Within the previous two semesters, the student must pass at least one mathematics course which is used in the in-major GPA calculation.
2. Upon having attempted 72 semester credits (including transfer, advanced placement, advanced standing, credit by examination, freshman rule), students must have completed:

MATH 1205-1206, 1224, 2224: Calculus	11
MATH 1114, 2214: Linear Algebra and ODE's	5
MATH 3034: Proofs and Algebraic Systems	3
Total Credits	19

3. Upon having attempted 96 semester credits, students must have an in-major grade-point average of 2.0 or above.

**IX. Minimum Hours Required** 120 semester credits.

**X. Minimum GPA Required.** For graduation, students are required to have a 2.0 GPA and a 2.0 in-major GPA. All Mathematics courses listed in **I** count toward the in-major GPA for this option.