

# Mathematical Sciences B.S.

## Degree Requirements: 124 Credit Hours

See Core Curriculum for required courses in Area A1 through Area E.

	Credit Hours
<b>General Requirements (Core A – E)</b>	42
Area A2 -- Must take MATH 1112, MATH 1113, or MATH 1441	
Area DII -- Must take MATH 1441 if not taken in Area A2 above	
<b>Additional Requirements</b>	4
<b>Area F - Courses Appropriate to Major</b>	18
Carryover from Area A2 or Area D (1) 3 of the 4 credit hours of MATH 1441 are taken in either Area A2 or Area D	
MATH 2242 Calculus II (or 1 hour carryover if MATH 2242 taken in Area D plus INTS 2130)	
MATH 2243 Calculus III	
MATH 2160 Linear Algebra	
MATH 2332 Mathematical Structures	
Select one of the following Computer Science Courses or a course approved by Mathematics Advisor:	
CSCI 1236 Introduction to Java Programming	
CSCI 1301 Programming Principles I	
CSCI 1302 Programming Principles II	
<b>Specific Requirements</b>	10-4
Lab Science Course in addition to those taken in Area D	
Foreign Language course(s) through 2001 or INTS 2130 if not completed above	
<b>Major Requirements</b>	50-56
MATH 3230 Ordinary Differential Equations	
MATH 3337 Probability	
MATH 4920 Undergraduate Seminar	
MATH 5331 Analysis I	
MATH 5333 Modern Algebra I	
STAT 5531 Statistical Methods I	
Select six elective courses from MATH or STAT upper-level courses (3000 and above) not including MATH 3032, MATH 5130, MATH 5135, MATH 5137, MATH 5232, MATH 5530, or STAT 3130.	
<b>Additional Free Electives</b> <sup>3</sup>	
Select 15-27 credit hours of additional free Electives	
Carryover from Area A2 (1) if MATH 1113 is taken in Area A2	
<b>Total Credit Hours</b>	<b>124</b>

<sup>1</sup> While Calculus I (MATH 1441) is 4 credit hours, only 3 credit hours will count toward fulfilling Area A2. The remaining credit hour will be applied toward Area F.

<sup>2</sup> Calculus I (MATH 1441) if not taken in Area A2, otherwise Calculus II (MATH 2242) is recommended

<sup>3</sup> Students must complete at least 39 credit hours of upper division course work overall.

## Other Program Requirements

A minimum grade of “C” is required for each CSCI, MATH, and STAT course taken in the major. This applies to all courses (lower and upper division). The mathematics major may not subsequently take for credit toward graduation a lower level MATH or STAT course after earning credit hour for a course that has the lower level course as a prerequisite (except by advisor’s permission).

## Honors in Mathematical Sciences

To graduate with Honors in Mathematical Sciences, a student must:

- be admitted to the University Honors Program at least three semesters prior to graduation;
- successfully complete Honors Research (MATH 4825) for two semesters and Honors Thesis (MATH 4929) for a total of six credit hours;
- be in good standing in the University Honors Program at the time of graduation.

*Note: Students earning the B.S. with a major in Mathematical Sciences and “Honors in Mathematical Sciences” may use the six credit hours earned through Honors Research (MATH 4825) and Honors Thesis (MATH 4929) as part of the Mathematics Electives. Therefore, these students will select four courses instead of six courses from the Mathematics Electives.*