

## Emphasis - Statistics

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### **B.S. in Mathematics** **Description**

The Department of Mathematics offers a B.S. in mathematics for students who wish to pursue graduate training in mathematics or to undertake careers in mathematically oriented professions. The B.S. degree allows the freedom to pursue mathematical depth in areas such as pure mathematics, applied mathematics, statistics, discrete mathematics, mathematics and computer science, or finance and actuarial science.

### **Minimum Total Credit Hours: 120**

### **General Education Requirements**

See the 'General Education/Core Curriculum' for the College of Liberal Arts.

### **Course Requirements**

A major in mathematics for a B.S. degree consists of 42 hours of mathematics courses as indicated below, plus a computer programming class chosen from:

- Csci 111, 251, 256, or 259.

### **Core Courses (24 hours)**

- Math 261-264: Calculus I-IV - 12 hours
- Math 305: Foundations - 3 hours
- Math 319: Linear Algebra - 3 hours
- Math 555: Advanced Calculus I - 3 hours
- Math 525: Modern Algebra I - 3 hours

### **A two-course in-depth sequence**

- 555/556: Advanced Calculus I and II
- 525/526: Modern Algebra I and II
- 301/401: Discrete Math/Combinatorics
- 353/454: Elementary/Intermediate Differential Equations
- 375/475: Statistics

### **Electives:**

300 level or above to reach the total of 42 credit hours of mathematics courses. The same mathematics course may satisfy more than one category, but students must still complete the total hours for the major.

### **An optional emphasis in statistics requires three courses:**

- Math 375 - Introduction to Statistics I
- Math 380 - Statistical Computing and Data Analysis
- Math 475 - Introduction to Statistics II

### **Other Academic Requirements**

Grades lower than C in mathematics courses will not be counted toward the mathematics major for the B.S. degree.

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