Mathematics, B.S. *major*
Applied Emphasis

Note: If the student's high school mathematics courses and/or the Mathematics Placement Test indicate a lack of readiness for calculus, the student will be placed in one of the following precalculus sequences: MATH 1470; or MATH 1170 and MATH 1180; or MATH 1170 and MATH 1470.

Required Credits: 40
Required GPA: 2.25

I REQUIRED CORE COURSES

COMPLETE THE FOLLOWING COURSES:

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)

APPLIED EMPHASIS

SELECT AT LEAST 6 COURES FROM THE FOLLOWING:

- CS 2322 Computer Science II (4 credits)
- MATH 2490 Differential Equations (4 credits)
- MATH 3710 Mathematical Modeling (3 credits)
- MATH 3720 Numerical Methods (3 credits)
- MATH 4410 Introduction to Analysis (3 credits)
- MATH 4760 Topics in Applied Mathematics (3 credits)
- STAT 2610 Applied Statistics (4 credits)
  or STAT 3631 Probability and Statistics I (4 credits)
- STAT 3610 Time Series Analysis (3 credits)
- STAT 3632 Probability and Statistics II (3 credits)

SUGGESTED SEMESTER SCHEDULE FOR MATHEMATICS MAJOR, B.S.

The following is a list of required Mathematics Major, B.S. courses by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- MATH 1470 Precalculus (5 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- Liberal Education requirements

Sophomore

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)
- Courses in the Field of Emphasis (consult with advisor)
- Liberal Education requirements

Junior/Senior

- Courses in the Field of Emphasis (consult with advisor)
- Complete Liberal Education requirements

Students seeking the Applied emphasis are encouraged to take significant coursework in related fields such as biology, business, chemistry, computer science, economics, geography, geology, environmental studies, physics or technology. Students planning to attend graduate school in applied mathematics or a related field should take both MATH 2490 Differential Equations and MATH 4410 Introduction to Analysis.