Mathematics, B.S. *major*
General 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: 44
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)

GENERAL EMPHASIS

COMPLETE THE FOLLOWING COURSE:

- STAT 3631 Probability and Statistics I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 4350 Abstract Algebra (3 credits)
- MATH 4371 Modern Algebra (3 credits)
- MATH 4410 Introduction to Analysis (3 credits)

REQUIRED ELECTIVES

SELECT 5 COURSES (not used above) FROM THE FOLLOWING:

- CS 2322 Computer Science II (4 credits)
- MATH 2490 Differential Equations (4 credits)
- MATH 3260 Mathematical Problem Solving (3 credits)
- MATH 3440 Introduction to Fractals & Chaos (3 credits)
- MATH 3560 Classical and Modern Geometry (3 credits)
- MATH 3710 Mathematical Modeling (3 credits)
- MATH 3720 Numerical Methods (3 credits)
- MATH 3820 History of Mathematics (3 credits)
- MATH 4240 Number Theory (3 credits)
- MATH 4350 Abstract Algebra (3 credits)
- MATH 4371 Modern Algebra (3 credits)
- MATH 4410 Introduction to Analysis (3 credits)
- MATH 4470 Advanced Calculus (3 credits)
- MATH 4760 Topics in Applied Mathematics (3 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