

THE MATH MAJOR

Credit Hour Requirements: Each student is required to take Calculus 1, Calculus 2, plus 27 hours (with 18 credit hours numbered 3000 or above), with a grade of C- or better and at least a 2.0 GPA for all attempted work in mathematics¹. Each student is also required to adhere to one of the five tracks described below.

Courses Required of All Students

1. Calculus 1 (MATH 1300 or APPM 1350)
2. Calculus 2 (MATH 2300 or APPM 1360)
3. Calculus 3 (MATH 2400 or APPM 2350)
4. Intro to Discrete Mathematics (MATH 2001) or Number Systems (MATH 2002)
5. Linear Algebra (MATH 2135)
6. Analysis 1 (MATH 3001)

The Five Tracks

(requirements in addition to those listed above)

Comprehensive Track

1. Abstract Algebra 1 (MATH 3140)
2. Abstract Algebra 2 (MATH 4140) or Analysis 2 (MATH 4001)
3. Plus three upper-division MATH courses (at least one at the 4000-level²)

Applicable Track

1. Intro to Probability (MATH 4510)
2. Intro to Ordinary Differential Equations (MATH 3430)
3. Mathematical Statistics (MATH 4520) or Partial Differential Equations (MATH 4470)
4. Plus two upper-division MATH courses

Secondary Education Track³

1. Functions and Modeling (MATH 3120)
2. Intro to Probability and Statistics (MATH 3510)
3. Euclidean and Non-Euclidean Geometry (MATH 3210)
4. History of Mathematical Ideas (MATH 4820)
5. Intro to the Theory of Numbers (MATH 3110) or Abstract Algebra 1 (MATH 3140)

Computational Track⁴

1. Computer Science 1: Starting Computing (CSCI 1300 or CSCI 1310)
2. Computer Science 2: Data Structures (CSCI 2270)
3. Algorithms (CSCI 3104)
4. Intro to Ordinary Differential Equations (MATH 3430)
5. Intermediate Numerical Analysis 1 (MATH/APPM 4650)
6. Plus two upper-division MATH courses (at least one at the 4000-level²)

Statistics Track

1. Intro to Probability (MATH 4510)
2. Mathematical Statistics (MATH 4520)
3. Intro to Time Series (MATH 4540)
4. Plus two of the following courses: Statistical Applications (APPM 4580), Statistical Modeling (APPM 4590), Markov Processes (APPM 4560), Intro to Stochastic Processes (MATH 6550)

¹ The College of Arts & Sciences requires a minimum of 30 credit hours for each major. For details, see the University Catalog.

² Students who declared the Math major prior to Fall 2014 may count MATH 3430 as a 4000-level course.

³ This track does not provide students with a teaching license. Students interested in obtaining such licensure should consult with the School of Education.

⁴ CSCI 1300 and CSCI 2270 do not count toward hours in the major and are not part of the major GPA.