

Mathematics B.A. and B.S.  
Major Plan of Study - Catalog Year 2025-2026

**INTRODUCTORY COURSES**

- ☐ MATH 1131Q Calculus I
  - ☐ MATH 1132Q Calculus II
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**FOUNDATIONAL COURSES** (all)

- ☐ MATH 2110Q Multivariable Calculus
  - ☐ MATH 2210Q Applied Linear Algebra
  - ☐ MATH 2410Q Elementary Differential Equations
  - ☐ MATH 2710 Transition to Advanced Mathematics (a grade of C or higher is required for the Pure and Teaching concentrations)
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**WRITING "W" COURSE** (one of the following)

- ☐ MATH 2705W Technical Writing in Mathematics
  - ☐ MATH 3670W Technical Writing for Actuaries
  - ☐ MATH 3796W Senior Thesis in Mathematics (Honors)
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**CONCENTRATION** (complete one of the following concentrations)

☐ **Pure Mathematics**

- ☐ MATH 3150 Analysis I
- ☐ MATH 3230 Abstract Algebra I
- Two of the following:
  - ☐ MATH 3151 Analysis II
  - ☐ MATH 3231 Abstract Algebra II
  - ☐ MATH 3240 Introduction to Number Theory
  - ☐ MATH 3250 Combinatorics
  - ☐ MATH 3260 Introduction to Mathematical Logic
  - ☐ MATH 3330 Elements of Topology
  - ☐ MATH 3370 Differential Geometry

☐ **Applied Mathematics**

- ☐ MATH 3410 Differential Equations for Applications (or MATH 3435 - Partial Differential Equations)
- ☐ MATH 3510 Numerical Analysis I
- ☐ MATH 3710 Introduction to Mathematical Modeling
- One additional of the following:
  - ☐ MATH 3146 Introduction to Complex Variables
  - ☐ MATH 3160 Probability
  - ☐ MATH 3170 Elementary Stochastic Processes (also offered as STAT 3965)
  - ☐ MATH 3180 Mathematics for Machine Learning
  - ☐ MATH 3330 Elements of Topology
  - ☐ MATH 3410 Differential Equations for Applications
  - ☐ MATH 3435 Partial Differential Equations
  - ☐ MATH 3511 Numerical Analysis II

☐ **Mathematics Teaching** (only open to current students in the Secondary Math IB/M Teacher Education Program)

- ☐ MATH 3150 Analysis I
  - ☐ MATH 3230 Abstract Algebra I
  - ☐ MATH 3160 Probability
  - One of the following:
    - ☐ MATH 3240 Introduction to Number Theory
    - ☐ MATH 3710 Introduction to Mathematical Modeling
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**ADDITIONAL MATH ELECTIVES** (Two 3-credit 3000+ level MATH courses)

- ☐ MATH 3000+ \_\_\_\_\_
  - ☐ MATH 3000+ \_\_\_\_\_
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**RELATED COURSES** (12 credits)

Related Courses in Mathematics

- ☐ Related 2000+ \_\_\_\_\_ Any 2000-level or higher course in: ACCT, BADM, BME, CE, CHEG, CHEM, COGS, CSE, ECE, ECON, EEB, ENVE, FNCE, GEOG, GSCI, MCB, ME, MSE, OPIM, PHYS, PNB, or STAT.
- ☐ Related 2000+ \_\_\_\_\_ Any 2000-level or higher non-Math Q Course (COMM 2000Q, LING 2010Q, etc).
- ☐ Related 2000+ \_\_\_\_\_ Other courses with advisor approval.
- ☐ Related 2000+ \_\_\_\_\_