A.B. Major in Mathematics:

Effective with the Class of 2028 and beyond, students pursuing the A.B. Major in Mathematics will select one of three tracks: theoretical mathematics, applied mathematics, or statistics.

Introductory courses in the major:

- MATH161 (Calculus I)
- MATH162 (Calculus II)
- MATH263 (Calculus III)
- MATH272 (Linear Algebra with Applications)

Additional Requirements for the Theoretical Mathematics Track:

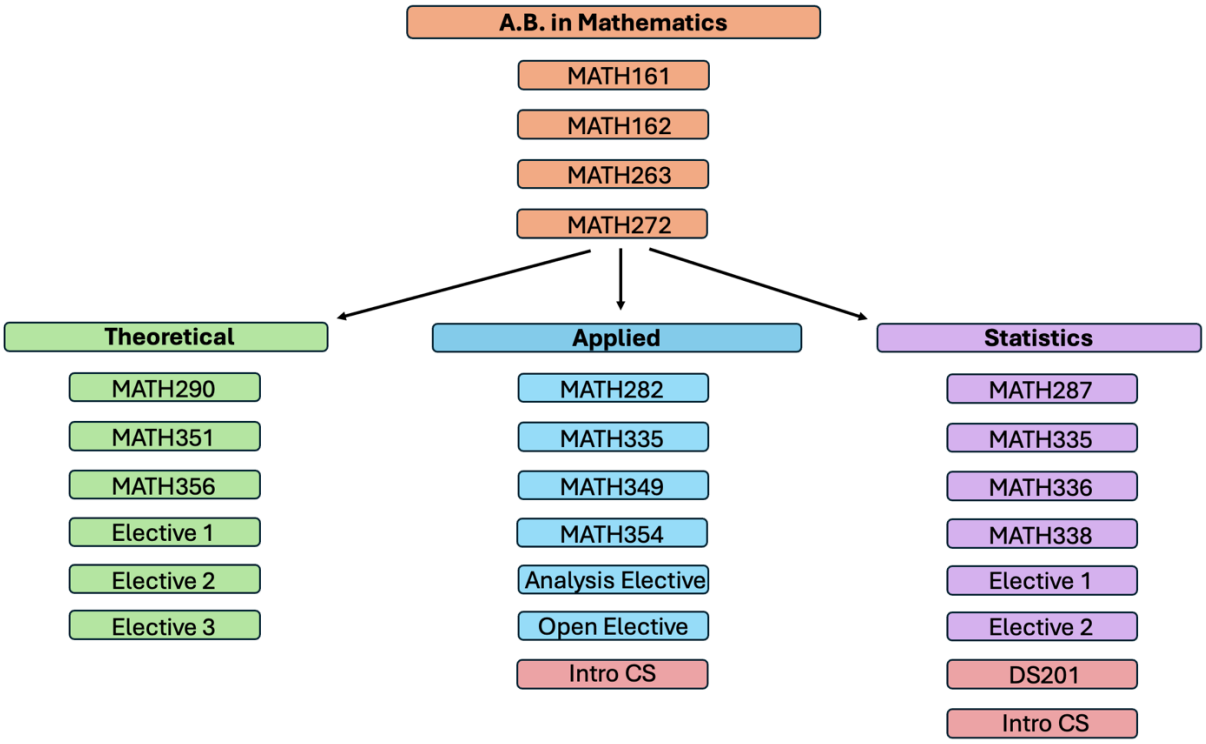
- MATH290 (Transition to Theoretical Mathematics)
- MATH351 (Abstract Algebra I)
- MATH356 (Real Analysis I)
- Three 300+ elective courses.
- *Note: Students may use MATH282 or MATH287 to satisfy one of their three electives.*

Additional Requirements for the Applied Mathematics Track:

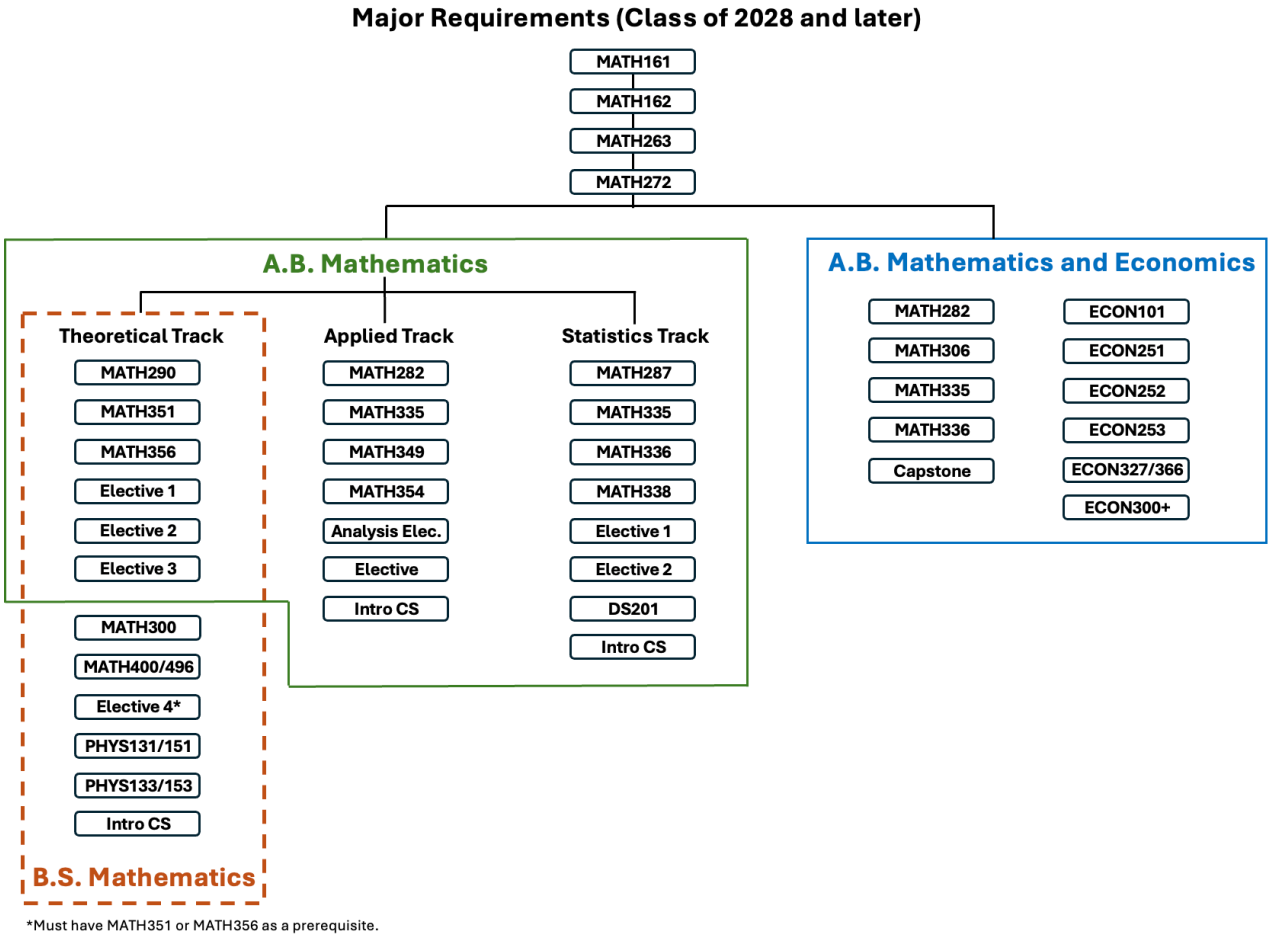
- MATH282 (Techniques in Math Modeling)
- MATH335 (Probability)
- MATH349 (Numerical Analysis)
- MATH354 (Advanced Topics in Applied Mathematics)
- One elective in analysis chosen from the following list:
    - MATH310 (Ordinary Differential Equations)
    - MATH312 (Partial Differential Equations)
    - MATH343 (Advanced Multivariable Calculus)
    - MATH345 (Complex Analysis)
    - MATH356 (Real Analysis I)
- One additional MATH300+ elective
- Introductory programming course: CS104, CS105, or CM151
- *Note: Students may use MATH287 or MATH290 to satisfy their open elective.*

Additional Requirements for the Statistics Track:

- MATH287 (Introduction to Data Modeling)
- MATH335 (Probability)
- MATH336 (Mathematical Statistics)
- MATH338 (Advanced Regression Analysis)
- DS201 (Introduction to Data Science)
- Two elective courses chosen from the following list:
    - MATH337 (Introduction to Stochastic Processes)
    - MATH347 (Financial Mathematics)
    - MATH356 (Real Analysis I)
    - Rotating special topics courses in statistics
    - Approved independent study or thesis
- Introductory programming course: CS104, CS105, or CM151
- *Note: Students may use MATH282 or MATH290 to satisfy one elective requirement.*



Effective with the Class of 2028, the following diagram illustrates the major pathways supported by the Department of Mathematical Sciences:



*Must have MATH351 or MATH356 as a prerequisite.