Mathematics

The mission and goal of the Department of Mathematics is to cultivate in our students the careful logic, deep thinking, and creative ideas that characterize mathematical thought and contribute to responsible citizenship. By providing high-quality instruction in mathematical content, skills and reasoning, the Department will contribute to the broad education of all students and will prepare its majors for advanced degree programs and/or careers requiring training in mathematics.

Major Requirements
MTH 151 Calculus I
MTH 152 Calculus II
MTH 205 Statistics (Calculus-based)
MTH 208 Multivariable Calculus
MTH 211 Foundations of Higher Math
MTH 217 Linear Algebra
At least three 300-level courses
Some examples of 300-level courses include:
  MTH 301 Geometry & History of Math
  MTH 305 Mathematical Statistics
  MTH 308 Differential Equations
  MTH 311 Introduction to Number Theory
  MTH 330 Introduction to Graph Theory
Capstone Experience
  MTH 320 Junior MathTalk
  MTH 420 Senior MathTalk
Elect at least one of the following:
  MTH 412 Algebraic Structures
  MTH 415 Real Analysis

Minor Requirements
At least six mathematics courses:
MTH 151 Calculus I
MTH 152 Calculus II
MTH 170 or MTH 217 Linear Algebra
Elect one of the following:
  MTH 211 Foundations of Higher Math
  MTH 301 Geometry & History of Math
Elect one course in applied mathematics
Elect one additional course at the 300 level

Beyond the Classroom
Students have many opportunities for research, internships, conferences, and networking beyond the classroom that give them an advantage to prepare for life after W&J.

Research and Opportunities
Department-funded travel to national and regional mathematics conferences
- Summer independent research opportunities with W&J mathematics faculty
- Guidance and mentoring for summer Research Experience for Undergraduate programs
- Opportunities to present original work and capstone projects at professional meetings

Math Life after W&J
- Banking, Finance, and Actuary Science
- Data Analytics, Computer Science, AI
- Graduate programs in Mathematics
- Graduate programs in Economics & Statistics
- 3+2 Programs in Biostatistics or Engineering

Alumni Achievements
- Ph.D., Middlebury College, Mathematics Professor
- University of Pittsburgh, Biostatistician
- U.S. Navy, Hydrographer
- PNC Bank, Financial Analyst
- IBM, Data Scientist
- Cleveland Clinic, Physician (Vascular Medicine)

A full list of courses and descriptions can be found online in the College catalog.