



**WASHINGTON
& JEFFERSON
COLLEGE**

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

- Calculus I (MTH 151)
- Calculus II (MTH 152)
- Probability and Statistics (MTH 205)
- Multivariable Calculus (MTH 208)
- Foundations of Higher Math (MTH 211)
- Linear Algebra (MTH 217)
- At least three 300-level courses
- Capstone Experience:
 - Junior MathTalk (MTH 320)
 - Senior MathTalk (MTH 420)
- At least one of the following:
 - Algebraic Structures (MTH 412)
 - Real Analysis (MTH 415)

Examples of 300-level courses include:

- Geometry & History of Math (MTH 301)
- Mathematical Statistics (MTH 305)
- Differential Equations (MTH 308)
- Introduction to Number Theory (MTH 311)
- Introduction to Graph Theory (MTH 330)

Minor Requirements

At least six mathematics courses:

- Calculus I (MTH 151)
- Calculus II (MTH 152)
- Applied Linear Algebra (MTH 170) or Linear Algebra (MTH 217)
- One of the following:
 - Foundations of Higher Math (MTH 211)
 - Geometry & History of Math (MTH 301)
- One course in applied mathematics
- One additional course at the 300-level

Department Chair

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Beyond the Classroom

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, Actuary Science
- Data Analytics, Computer Science, AI
- Graduate programs in Mathematics
- Graduate programs in Economics and Statistics
- 3+2 Programs in Biostatistics or Engineering

Alumni Achievements

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



Program Website

washjeff.edu/mathematics



W&J mathematics students and faculty at a conference in San Francisco, CA