# **MATHEMATICS MINOR**

Department of Mathematics and Computer Science (https://catalog.washcoll.edu/catalog/departments-programs/mathematics-computer-science/)
Division of Natural Sciences and Mathematics

The mathematics minor consists of

- Five foundational courses (excluding statistics)
- One advance course
- One elective

## **Mathematics Minor Requirements**

Code	Title	Credits	Notes
Foundational Courses		20	
MAT 111	Differential Calculus		
or MAT 106 & MAT 107	Stretch Differential Calculus I and Stretch Differential Calculus II		
MAT 112	Integral Calculus		
MAT 210	Multivariable Calculus		
MAT/CSI 240	Discrete Mathematics		
MAT 280	Linear Algebra		
Select 1 Course From Below		4	
MAT 410	Abstract Algebra		
MAT 470	Real Analysis I		
Select 1 Course From Below		4	
ECN 320	Econometrics		
CHE 305	Chemical Thermodynamics/Kinetics w/Lab		
CHE 306	Quantum Chem & Spectro with Lab		
CSI 220	Data Science		
CSI 320	Theory of Computation		
CSI 360	Machine Learning		
CSI 380	Design & Analysis of Algorithms		
MAT 209	Statistical Inference & Data Analysis II		
MAT 230	Foundations of Geometry		
MAT 310	Differential Equations		
MAT 320	Probability		
MAT 330	Complex Analysis		
MAT 340	Numerical Analysis		
MAT/CSI 350	Graph Theory & Combinatorics		
MAT 370	Operations Research		
MAT 380	Number Theory		
MAT 410	Abstract Algebra (if not counted as the advanced course above)		
MAT 470	Real Analysis I (if not counted as the advanced course above)		
MAT 480	Real Analysis II		
MAT 294	Special Topics <sup>1</sup>		
or MAT 394	Special Topics		
or MAT 494	Special Topics		
PHY 321	Classical Mechanics		
PHY 324	Electricity and Magnetism		

PHY 322 Quantum Mechanics

Total Credits 28

Appropriate special topics in other subjects approved by the Department Chair

## **Quantitative Distribution**

With a few exceptions, any MAT or CSI course can be counted for distribution. In particular. The 2-semester MAT 106 Stretch Differential Calculus I and MAT 107 Stretch Differential Calculus II count as two courses toward the quantitative distribution component but taking only one semester will not count for any. Designated MAT or CSI special topics classes may be excluded.

### **Major**

- Computer Science Major (https://catalog.washcoll.edu/catalog/departments-programs/mathematics-computer-science/computer-science-major/)
- Data Science Major (https://catalog.washcoll.edu/catalog/departments-programs/mathematics-computer-science/data-science-major/)
- · Mathematics Major (https://catalog.washcoll.edu/catalog/departments-programs/mathematics-computer-science/mathematics-major/)

#### Minor

- Computer Science Minor (https://catalog.washcoll.edu/catalog/departments-programs/mathematics-computer-science/computer-science-minor/)
- · Data Science Minor (https://catalog.washcoll.edu/catalog/departments-programs/mathematics-computer-science/data-science-minor/)
- · Mathematics Minor (p. 1)