

MATHEMATICS - MATHEMATICS EMPHASIS REQUIREMENTS (BA/BS)

Code	Title	Units
Major Requirements		
MATH 200	MATHEMATICS: FORM AND FUNCTION	1
MATH 253	CALCULUS AND ANALYTIC GEOMETRY I	5
MATH 254	CALCULUS AND ANALYTIC GEOMETRY II	4
MATH 255	CALCULUS AND ANALYTIC GEOMETRY III	4
MATH 280	DISCRETE MATHEMATICS	3
MATH 301	INTRODUCTION TO ANALYSIS	3
MATH 355	MATRICES AND LINEAR ALGEBRA	3
MATH 452	INTRODUCTION TO ABSTRACT ALGEBRA	3
Select from the following: ¹		12
MATH 281	PUTNAM COMPETITION AND PROBLEM SOLVING	
MATH 375	HISTORY OF MATHEMATICS	
MATH 498R	INDEPENDENT STUDY - UNDERGRADUATE RESEARCH ²	
STAT 498R	INDEPENDENT STUDY - UNDERGRADUATE RESEARCH ²	
Abstract Thinking		
MATH 333	EUCLIDEAN GEOMETRY	
MATH 417	NUMBER THEORY	
MATH 431	TOPOLOGY	
MATH 433	NON-EUCLIDEAN GEOMETRY	
MATH 450	GRAPH THEORY	
MATH 453	ABSTRACT ALGEBRA	
MATH 463	COMPLEX VARIABLES	
MATH 464	ADVANCED CALCULUS	
Mathematical Modeling		
MATH 361	DIFFERENTIAL EQUATIONS	
MATH 381	MATHEMATICAL MODELING AND SIMULATION	
MATH 450	GRAPH THEORY	
MATH 458	APPLIED MATHEMATICAL ANALYSIS	
MATH 459	PARTIAL DIFFERENTIAL EQUATIONS	
MATH 463	COMPLEX VARIABLES	
MATH 471	NUMERICAL ANALYSIS	
MATH 474	DYNAMICAL SYSTEMS & CHAOS	
Statistics and Probability		
MATH 343	APPLIED PROBABILITY THEORY	
MATH 442	MATHEMATICAL STATISTICS	
STAT 263	INTRODUCTION TO R	
STAT 342	APPLIED STATISTICS	
STAT 362	APPLIED NONPARAMETRIC STATISTICS	
STAT 420	APPLIED REGRESSION ANALYSIS	
STAT 423	EXPERIMENTAL DESIGN AND ANALYSIS OF VARIANCE	

STAT 430	SAMPLING, DESIGN, AND ANALYSIS OF SURVEY DATA
STAT 440	STATISTICAL LEARNING FOR DATA SCIENCE
STAT 445	APPLIED MULTIVARIATE STATISTICS
Total Units	38

¹ Categories are given for informational purposes only. There is no distributional requirement.

² No more than 3 units of Independent Study - Undergraduate Research (MATH 498R or STAT 498R) may be used in the major.

Code	Title	Units
Unique Requirements		
Select one from:		3
COMPSCI 170	INTRODUCTION TO PYTHON PROGRAMMING	
COMPSCI 172	INTRODUCTION TO JAVA	
COMPSCI 174	INTRODUCTION TO C++	
Select one from:		3
ENGLISH 370	ADVANCED COMPOSITION	
PWP 371	WRITING IN THE SCIENCES	
PWP 372	TECHNICAL AND PROFESSIONAL WRITING	
Total Units		6