GENERAL CURRICULUM IN MATHEMATICS

This is the default curriculum required for students who do not declare a concentration.

STAT 301	Statistics I	4
or STAT 305	Introduction to Probability and Simulation	
or STAT 425	Probability Theory	
Tracks		
Choose three tracks from the following list, with at least one track chosen from the first four tracks listed. A track consists of two paired courses representing depth of study with a particular focus. [1]		24
MATH 413 & MATH 414	Introduction to Analysis II and Introduction to Analysis III	
MATH 482 & MATH 483	Abstract Algebra II and Abstract Algebra III	
or MATH 406	Linear Algebra III	
MATH 406 & MATH 413	Linear Algebra III and Introduction to Analysis II	
or MATH 440	Topology I	
MATH 482 & MATH 413	Abstract Algebra II and Introduction to Analysis II	
or MATH 440	Topology I	
MATH 304 & MATH 404	Vector Analysis and Introduction to Differential Geometry	
MATH 335 & MATH 435	Graph Theory and Discrete Mathematics with Applications I	
MATH 344 & MATH 416	Linear Analysis II and Differential Equations II	
or MATH 418	Partial Differential Equations	
MATH 350 & MATH 341	Mathematical Software and Theory of Numbers	
or MATH 344	Linear Analysis II	
MATH 408 & MATH 409	Complex Analysis I and Complex Analysis II	
MATH 437 & MATH 453	Game Theory and Numerical Optimization	
MATH 442 & MATH 443	Euclidean Geometry and Modern Geometries	
MATH 451 & MATH 452	Numerical Analysis I and Numerical Analysis II	
Approved Electives		
Select from the following: [2]		16
CSC/CPE 202	Data Structures	
CSC/CPE 203	Project-Based Object-Oriented Programming and Design	
CSC 349	Design and Analysis of Algorithms	
MATH 304	Vector Analysis	
MATH 335	Graph Theory	
MATH 341	Theory of Numbers	
MATH 344	Linear Analysis II	
MATH 350	Mathematical Software	
MATH 404	Introduction to Differential Geometry	
MATH 406	Linear Algebra III	
MATH 408	Complex Analysis I	
MATH 409	Complex Analysis II	
MATH 413	Introduction to Analysis II	
MATH 414	Introduction to Analysis III	
MATH 416	Differential Equations II	
MATH 418	Partial Differential Equations	
MATH 419	Introduction to the History of Mathematics	
MATH 435	Discrete Mathematics with Applications I	
MATH 437	Game Theory	
MATH 440	Topology I	
MATH 442	Euclidean Geometry	
MATH 443	Modern Geometries	
MATH 451	Numerical Analysis I	
MATH 452	Numerical Analysis II	
MATH 453	Numerical Optimization	
MATH 459	Senior Project Seminar	
or MATH 460	Senior Project Applied Seminar	
MATH 461 & MATH 462	Senior Project I and Senior Project II	
MATH 470	Selected Advanced Topics	
MATH 475	Advanced Topics in Mathematics [3]	
MATH 476	Advanced Topics in Applied Mathematics [3]	
MATH 482	Abstract Algebra II	
MATH 483	Abstract Algebra III	
PHYS 132	General Physics II	
or PHYS 133	General Physics III	
PHYS 211	Modern Physics I	
PHYS 301	Thermal Physics I	
PHYS 302	Classical Mechanics I	
PHYS 322	Vibrations and Waves	
PHYS 323	Optics	
PHYS 405	Quantum Mechanics I	
PHYS 408	Electromagnetic Fields and Waves I	
STAT 301	Statistics I	
STAT 302	Statistics II	
STAT 305	Introduction to Probability and Simulation	
STAT 425	Probability Theory	
STAT 426	Estimation and Sampling Theory	
STAT 427	Mathematical Statistics	
Total units		44

1 A single course cannot be used to satisfy multiple tracks.

2 Consultation with advisor is recommended prior to selecting Approved Electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.

3 Maximum of 8 units combined between MATH 475 and MATH 476.