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.

| 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 |

Select from the following approved electives: 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 | Senior Project I |
| & MATH 462 | and Senior Project II |
| MATH 470 | Selected Advanced Topics |
| MATH 475 | Advanced Topics in Mathematics 2 |
| MATH 476 | Advanced Topics in Applied Mathematics 2 |
| 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 Maximum 8 units combined between MATH 475 and MATH 476.