# 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. **MATH 413**  
& **MATH 414**  
Introduction to Analysis II  
and Introduction to Analysis III  

2. **MATH 482**  
& **MATH 483**  
Abstract Algebra II  
and Abstract Algebra III  

3. **MATH 406**  
& **MATH 413**  
Linear Algebra III  
and Introduction to Analysis II  

or **MATH 440**  
Topology I  

4. **MATH 482**  
& **MATH 413**  
Abstract Algebra II  
and Introduction to Analysis II  

or **MATH 440**  
Topology I  

5. **MATH 304**  
& **MATH 404**  
Vector Analysis  
and Introduction to Differential Geometry  

6. **MATH 335**  
& **MATH 435**  
Graph Theory  
and Discrete Mathematics with Applications I  

7. **MATH 344**  
& **MATH 416**  
Linear Analysis II  
and Differential Equations II  

or **MATH 418**  
Partial Differential Equations  

8. **MATH 350**  
& **MATH 341**  
Mathematical Software  
and Theory of Numbers  

or **MATH 344**  
Linear Analysis II  

9. **MATH 408**  
& **MATH 409**  
Complex Analysis I  
and Complex Analysis II  

10. **MATH 437**  
Game Theory  

11. **MATH 442**  
Euclidean Geometry  

12. **MATH 443**  
Modern Geometries  

13. **MATH 451**  
Numerical Analysis I  

14. **MATH 452**  
Numerical Analysis II  

15. **MATH 453**  
Numerical Optimization  

16. **MATH 459**  
Senior Project Seminar  

or **MATH 460**  
Senior Project Applied Seminar  

17. **MATH 461**  
Senior Project I  

& **MATH 462**  
Senior Project II  

18. **MATH 470**  
Selected Advanced Topics  

19. **MATH 475**  
Advanced Topics in Mathematics  

20. **MATH 476**  
Advanced Topics in Applied Mathematics  

21. **MATH 482**  
Abstract Algebra II  

22. **MATH 483**  
Abstract Algebra III  

23. **PHYS 132**  
General Physics II  

or **PHYS 133**  
General Physics III  

24. **PHYS 211**  
Modern Physics I  

25. **PHYS 301**  
Thermal Physics I  

26. **PHYS 302**  
Classical Mechanics I  

27. **PHYS 322**  
Vibrations and Waves  

28. **PHYS 323**  
Optics  

29. **PHYS 405**  
Quantum Mechanics I  

30. **PHYS 408**  
Electromagnetic Fields and Waves I  

31. **STAT 301**  
Statistics I  

32. **STAT 302**  
Statistics II  

33. **STAT 305**  
Introduction to Probability and Simulation  

34. **STAT 425**  
Probability Theory  

35. **STAT 426**  
Estimation and Sampling Theory  

36. **STAT 427**  
Mathematical Statistics  

**Total units**: 44

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1. A single course cannot be used to satisfy multiple tracks.  
2. Maximum 8 units combined between MATH 475 and MATH 476.