# General Curriculum in Mathematics

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 301</td>
<td>Statistics I</td>
<td>4</td>
</tr>
<tr>
<td>or STAT 305</td>
<td>Introduction to Probability and Simulation</td>
<td></td>
</tr>
<tr>
<td>or STAT 425</td>
<td>Probability Theory</td>
<td></td>
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</tbody>
</table>

## 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 413**  
   Linear Analysis II  
   and Introduction to Analysis 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** & **MATH 453**  
    Game Theory  
    and Numerical Optimization

11. **MATH 442** & **MATH 443**  
    Euclidean Geometry  
    and Modern Geometries

12. **MATH 451** & **MATH 452**  
    Numerical Analysis I  
    and Numerical Analysis II

or **MATH 440**  
   Topology I

13. **PHYS 132** & **PHYS 133**  
    General Physics II  
    and General Physics III

14. **PHYS 211** & **PHYS 301**  
    Modern Physics I  
    and Thermal Physics I

15. **PHYS 302** & **PHYS 322**  
    Classical Mechanics I  
    and Vibrations and Waves

16. **PHYS 323** & **PHYS 405**  
    Optics  
    and Quantum Mechanics I

17. **PHYS 408** & **PHYS 325**  
    Electromagnetic Fields and Waves I  
    and Electromagnetic Fields and Waves II

18. **STAT 301** & **STAT 302**  
    Statistics I  
    and Statistics II

19. **STAT 305** & **STAT 306**  
    Introduction to Probability and Simulation  
    and Introduction to the History of Mathematics

20. **STAT 425** & **STAT 426**  
    Probability Theory  
    and Estimation and Sampling Theory

21. **STAT 427** & **STAT 428**  
    Mathematical Statistics  
    and 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.