MINOR IN MATHEMATICS

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Web address for department: www.math.illinois.edu

Students must complete MATH 241, and at least one 400-level MATH course for admission into the minor. The Mathematics minor is designed to prepare students majoring in some other discipline with a background in mathematics that is both broad and deep. Students interested in pursuing the minor should have completed the calculus sequence through MATH 241, and one additional Math course at the 400-level demonstrating a strong record of success in college-level mathematics courses. Given the cumulative character of mathematics preparation, students earning grades of C or below in previous mathematics courses are advised not to pursue the minor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 241</td>
<td>Calculus III</td>
<td>4</td>
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Completed in one of two ways:

1. MATH 347 Fundamental Mathematics (and four courses chosen from at least two of the following lists of courses)

OR

2. five courses chosen from at least two of the following lists of courses.

Algebra

ASRM 406  Linear Algebra with Financial Applications (formerly MATH 410)

MATH 415  Applied Linear Algebra

MATH 416  Abstract Linear Algebra

MATH 417  Intro to Abstract Algebra

MATH 418  Intro to Abstract Algebra II

MATH 427  Honors Abstract Algebra

MATH 453  Elementary Theory of Numbers

Discrete Mathematics

MATH 412  Graph Theory

MATH 413  Intro to Combinatorics

MATH 414  Mathematical Logic

MATH 482  Linear Programming

Analysis

MATH 284  Intro Differential Systems

MATH 285  Intro Differential Equations

MATH 286  Intro to Differential Eq Plus

MATH 424  Honors Real Analysis

MATH 425  Honors Advanced Analysis

MATH 441  Differential Equations

MATH 442  Intro Partial Diff Equations

MATH 444  Elementary Real Analysis

MATH 446  Applied Complex Variables

MATH 447  Real Variables

MATH 448  Complex Variables

CS 450  Numerical Analysis

MATH 484  Nonlinear Programming

MATH 487  Advanced Engineering Math

MATH 489  Dynamics & Differential Eqns

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>MATH 402</td>
<td>Non Euclidean Geometry</td>
</tr>
<tr>
<td>MATH 403</td>
<td>Euclidean Geometry</td>
</tr>
<tr>
<td>MATH 423</td>
<td>Differential Geometry</td>
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<tr>
<td>MATH 428</td>
<td>Honors Topics in Mathematics</td>
</tr>
<tr>
<td>MATH 432</td>
<td>Set Theory and Topology</td>
</tr>
<tr>
<td>MATH 481</td>
<td>Vector and Tensor Analysis</td>
</tr>
<tr>
<td>MATH 461</td>
<td>Probability Theory</td>
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<tr>
<td>STAT 400</td>
<td>Statistics and Probability I</td>
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<tr>
<td>STAT 410</td>
<td>Statistics and Probability II ¹</td>
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<tr>
<td>or STAT 420</td>
<td>Methods of Applied Statistics</td>
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Total Hours 19

1  Students may use STAT 410 or STAT 420, but not both toward the minor.

Information listed in this catalog is current as of 05/2019