MINOR IN MATHEMATICS

E-mail: mathadvising@illinois.edu

Web address for department: www.math.illinois.edu (http://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.

Completed in one of two ways:

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

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 241</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 347</td>
<td>Fundamental Mathematics (and four courses chosen from at least two of the following lists of courses)</td>
<td>15</td>
</tr>
</tbody>
</table>

**Code**

**Title**

**Hours**

MATH 241 Calculus III 4

Completed in one of two ways:

- MATH 347 Fundamental Mathematics (and four courses chosen from at least two of the following lists of courses) 15

OR

- 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

**Geometry**

MATH 402 Non Euclidean Geometry

MATH 403 Euclidean Geometry

MATH 423 Differential Geometry

MATH 428 Honors Topics in Mathematics

MATH 432 Set Theory and Topology

MATH 481 Vector and Tensor Analysis

**Probability and Statistics**

MATH 461 Probability Theory

STAT 400 Statistics and Probability I

STAT 410 Statistics and Probability II 1

or STAT 420 Methods of Applied Statistics

Total Hours 19

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