MATHEMATICS, MS

for the Master of Science in Mathematics

The MS in Mathematics program allows students a wide range of course choices and can offer good preparation either for a job in industry or for pursuit of a doctorate in mathematics at another university. It is rare, though not impossible, for students to enter the PhD program at the University of Illinois after finishing the MS in Mathematics. The degree requires 32 credit hours and can normally be completed in 18 months. A master's thesis is optional. Applications are accepted for Fall semester each year. Financial aid is generally not available.

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For additional details and requirements refer to the department's Guide to Graduate Studies (https://files.webservices.illinois.edu/7917/GraduateGuide18-19.pdf) and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook/).

Thesis Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MATH 448</td>
<td>Complex Variables</td>
<td>3-4</td>
</tr>
<tr>
<td>MATH 540</td>
<td>Real Analysis</td>
<td></td>
</tr>
<tr>
<td>MATH 542</td>
<td>Complex Variables I</td>
<td></td>
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</tbody>
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Select one of the following:

- MATH 418 Intro to Abstract Algebra II
- MATH 500 Abstract Algebra I
- MATH 501 Abstract Algebra II
- MATH 599 Thesis Research (min/max applied toward degree) 4

Total Hours Required: 32

Other Requirements

Other requirements may overlap

- MATH 405, MATH 406, MATH 415, MATH 444, and MATH 499 cannot be counted toward this graduate degree.

Minimum Hours Required Within the 24 Unit:

- Minimum 500-level Hours Required Overall: 12 (in MATH)
- Minimum GPA: 3.0

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Non-Thesis Option

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Select one of the following:

- MATH 418 Intro to Abstract Algebra II
- MATH 500 Abstract Algebra I
- MATH 501 Abstract Algebra II

Total Hours Required: 32

Other Requirements

Other requirements may overlap

- MATH 405, MATH 406, MATH 415, MATH 444, and MATH 499 cannot be counted toward this graduate degree.

Minimum Hours Required Within the 24 Unit:

- Minimum 500-level Hours Required Overall: 12 (in MATH)
- Minimum GPA: 3.0

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1. Students will have a strong understanding of abstract algebra.
2. Students will have a strong understanding of real analysis.
3. Students will gain the ability to engage with theoretical mathematical thinking at the graduate level.
4. Students will gain experience in original research in mathematics, if desired. This goal applies to students on the thesis track of this program.

Graduate Degree Programs in Mathematics

- Actuarial Science, MS (http://catalog.illinois.edu/graduate/las/actuarial-science-ms/)
- Applied Mathematics, MS (http://catalog.illinois.edu/graduate/las/applied-mathematics-ms/)
- Mathematics, MS (p. 1)
- Predictive Analytics and Risk Management, MS (http://catalog.illinois.edu/graduate/las/predictive-analytics-risk-management-ms/)
- Enterprise Risk Management (http://catalog.illinois.edu/graduate/las/predictive-analytics-risk-management-ms/enterprise-risk-management/)
- Financial and Insurance Analytics
- Mathematics, PhD (http://catalog.illinois.edu/graduate/las/mathematics-phd/)
- optional concentrations:
  - Actuarial Science & Risk Analytics (http://catalog.illinois.edu/graduate/las/mathematics-phd/actuarial-science-risk-analytics/)
  - Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)
  - Teaching of Mathematics, MS (http://catalog.illinois.edu/graduate/las/teaching-mathematics-ms/)
Mathematics Department
Department Chair: Vera Hur
Director of Graduate Studies: Yuliy Baryshnikov
Mathematics Department website (http://www.math.illinois.edu/)
Mathematics Department faculty (https://math.illinois.edu/directory/
faculty-by-type/)
Mathematics faculty research (https://math.illinois.edu/research/
faculty-research/)
273 Altgeld Hall, 1409 West Green Street, Urbana, IL 61801
(217) 333-5749
Mathematics email (math-grad@illinois.edu)

College of Liberal Arts & Sciences
College of Liberal Arts & Sciences website (https://las.illinois.edu/)

Admissions
Mathematics Admissions & Requirements (https://math.illinois.edu/
admissions/graduate-program-mathematics-admissions/#MS-Math)
Graduate College Admissions & Requirements (https://grad.illinois.edu/
admissions/apply/)

Information listed in this catalog is current as of 08/2024