MATHEMATICS

Doctor of Philosophy in Mathematics

Students working toward a Ph.D. degree usually require from four to six years to complete the requirements. Each student must pass the comprehensive examinations (testing the student's knowledge of basic graduate-level mathematics in algebra, analysis, and other areas) and the preliminary examination (testing the student's ability to begin or continue research in a chosen field). Students must also write and defend a research thesis in their field of mathematics.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<td></td>
<td>Students must demonstrate competence in five core courses. Two of these are required to be MATH 500 (Abstract Algebra) and MATH 540 (Real Analysis). Students must also demonstrate proficiency in undergraduate complex analysis.</td>
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<tr>
<td></td>
<td>Master's equivalency</td>
<td>32</td>
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<td></td>
<td>MATH 599 Thesis Research (0 min applied toward degree)</td>
<td>0</td>
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<tr>
<td>Total Hours</td>
<td>96</td>
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1 Students in the Actuarial Science and Risk Analytics concentration are not required to take MATH 500.

Other Requirements

Other requirements may overlap

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

64 hours in residence

Masters Degree Required for Admission to PhD? No
Comprehensive Exam Required Yes
Preliminary Exam Required Yes
Final Exam/Dissertation Defense Required Yes
Dissertation Deposit Required Yes
Minimum GPA: 3.25

1 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).