

# Mathematics, MS

## Academic Plans

### Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

### Mathematics, MS

- Program I Subprogram
- Program II Subprogram

#### Program I Subprogram

Course	Title	Hours
<b>Academic Career</b>		
<b>Any Semester</b>		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. <sup>a, b</sup>		
Graduate College major program GPA of at least 2.75 is required. <sup>c</sup>		
Program I is intended for master's students who have been admitted by the Department of Mathematics. It also provides a path for PhD students in mathematics or applied mathematical and computational sciences to earn a master's degree during their course of study.		
<b>Hours</b>		<b>0</b>
<b>First Year</b>		
<b>Fall</b>		
MATH:5200 or MATH:5000	Introduction to Analysis I <sup>d</sup> or Abstract Algebra I	3
MATH course (5000-level) <sup>e</sup>		3
MATH course (5000-level) <sup>e</sup>		3
<b>Hours</b>		<b>9</b>
<b>Spring</b>		
MATH:5010 or MATH:5210	Abstract Algebra II <sup>d</sup> or Introduction to Analysis II	3
MATH course (5000-level) <sup>e</sup>		3
MATH course (5000-level) <sup>e</sup>		3
<b>Hours</b>		<b>9</b>
<b>Summer</b>		
Prepare for qualifying examinations <sup>f</sup>		
<b>Hours</b>		<b>0</b>
<b>Second Year</b>		
<b>Fall</b>		
Elective course (prefix MATH, numbered 3000 or above) <sup>g</sup>		3
Elective course (prefix MATH, numbered 3000 or above) <sup>g</sup>		3
<b>Hours</b>		<b>6</b>
<b>Spring</b>		
Elective course (prefix MATH, numbered 3000 or above) <sup>g</sup>		3

Elective course (prefix MATH, numbered 3000 or above) <sup>g</sup>	3
Degree Application: apply for degree in MyUI (Degrees/Graduation tile)	
<b>Hours</b>	<b>6</b>
<b>Total Hours</b>	<b>30</b>

- a Students complete 30 s.h. in mathematics courses (prefix MATH), including at least 18 s.h. in courses in 5000-level courses and 12 s.h. in courses numbered 3000 and above. They must also pass two qualifying examinations. The qualifying examinations may be chosen from algebra, analysis, differential equations, topology, and numerical analysis.
- b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
- c Graduate College major program GPA is comprised of only the UI courses which are used to satisfy degree requirements.
- d Students must complete either MATH:5000 and MATH:5010, or MATH:5200 and MATH:5210.
- e See the General Catalog for list of approved courses.
- f Students can take MATH:5950 if this course is offered in first year summer.
- g Work with academic advisor to determine appropriate coursework and sequence.

#### Program II Subprogram

Course	Title	Hours
<b>Academic Career</b>		
<b>Any Semester</b>		
30 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. <sup>a, b</sup>		
Graduate College major program GPA of at least 2.75 is required. <sup>c</sup>		
Program II is intended for students pursuing graduate degrees in other departments. Students are advised to meet with the director of graduate studies (DGS) at the beginning of the master's program to understand the expectations for fulfilling the program requirements.		
<b>Hours</b>		<b>0</b>
<b>First Year</b>		
<b>Fall</b>		
MATH course (5000-level) <sup>d</sup>		3
MATH course (5000-level) <sup>d</sup>		3
MATH course (5000-level) <sup>d</sup>		3
<b>Hours</b>		<b>9</b>
<b>Spring</b>		
MATH course (5000-level) <sup>d</sup>		3
MATH course (5000-level) <sup>d</sup>		3
MATH course (5000-level) <sup>d</sup>		3
<b>Hours</b>		<b>9</b>
<b>Summer</b>		
Prepare for depth requirement <sup>e</sup>		
<b>Hours</b>		<b>0</b>

**Second Year****Fall**

Elective course (prefix MATH, numbered 3000 or above) <sup>f</sup>	3
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Elective course (prefix MATH, numbered 3000 or above) <sup>f</sup>	3
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<b>Hours</b>	<b>6</b>
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**Spring**

Elective course (prefix MATH, numbered 3000 or above) <sup>f</sup>	3
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Elective course (prefix MATH, numbered 3000 or above) <sup>f</sup>	3
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Degree Application: apply for degree in MyUI  
(Degrees/Graduation tile)

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<b>Hours</b>	<b>6</b>
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<b>Total Hours</b>	<b>30</b>
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- a Students complete 30 s.h. in mathematics courses (prefix MATH), including at least 18 s.h. in 5000-level courses and 12 s.h. in courses numbered 3000 and above.
- b Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
- c Graduate College major program GPA is comprised of only the UI courses which are used to satisfy degree requirements.
- d See the General Catalog for list of approved courses.
- e The depth requirement may be fulfilled one of three ways: 1) achieve a master's pass or above in two of the five mathematics qualifying exams (algebra, analysis, differential equations, topology, and numerical analysis); 2) fulfill a qualifying exam or similar requirement from a different graduate program at the University of Iowa, subject to approval of the Department of Mathematics; or 3) complete a final project supervised or co-supervised by a faculty member in the Department of Mathematics, subject to departmental approval. The acting director of graduate studies and at least two members of the qualifying committee representing two different subject areas must agree that the final project constitutes master's level work. Students are required to submit a Project Plan Form by the first week of their final semester.
- f Work with academic advisor to determine appropriate coursework and sequence.