

BS with a Major in Mathematics

Program Codes:

20FT0439BS

Degree Requirements

To earn a Bachelor of Science in Liberal Arts and Sciences degree from UIC, students must complete university, college, and department degree requirements. The Department of Mathematics, Statistics, and Computer Science degree requirements are outlined below. Students should consult the *College of Liberal Arts and Sciences* section for additional degree requirements and college academic policies.

Code	Title	Hours
Summary of Requirements		
Major Requirements		39
General Education and Electives to reach minimum Total Hours		81
Total Hours		120

General Education

See *General Education* and *Writing-in-the-Discipline* in the *College of Liberal Arts and Sciences* section for information on meeting these requirements.

Major Requirements

Code	Title	Hours
Required Courses		
MATH 180	Calculus I ^{a,b}	4
MATH 181	Calculus II ^a	4
MATH 210	Calculus III ^a	3
MATH 215	Introduction to Advanced Mathematics	3
MATH 300	Writing for Mathematics ^c	1
MATH 313	Analysis I	3
MATH 320	Linear Algebra I	3
MATH 330	Abstract Algebra I	3
Electives		
Electives chosen from mathematics, statistics, and mathematical computer science courses at the 200-level or higher, with the exception of MATH 310. At least 6 hours must be at the 400-level, excluding MATH 496, MCS 496, and STAT 496.		15
Total Hours		39

^a This course is approved for the Analyzing the Natural World General Education category.

^b MATH 180 also fulfills the LAS Quantitative Reasoning requirement.

^c MATH 300 fulfills the Writing-in-the-Discipline requirement.

NOTE: Students planning advanced study in Mathematics should choose their electives from among the following:

Code	Title	Hours
Recommended Electives		
MATH 414	Analysis II	
MATH 417	Complex Analysis with Applications	

MATH 430	Formal Logic I
MATH 431	Abstract Algebra II
MATH 435	Foundations of Number Theory
MATH 442	Differential Geometry of Curves and Surfaces
MATH 445	Introduction to Topology I
MATH 446	Introduction to Topology II
MCS 421	Combinatorics
MCS 423	Graph Theory
STAT 401	Introduction to Probability
STAT 475	Mathematics and Statistics for Actuarial Sciences I

Recommended Plan of Study

Students who do not place into MATH 180 should expect to take summer session courses and possibly take longer than four years to graduate. Students who have taken AP exams in calculus or computer science need to see a departmental advisor for correct placement.

Course	Title	Hours
First Year		
Fall Semester		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
MATH 180	Calculus I ^a	4
Foreign Language		4
General Education Requirement course		3
Hours		14
Spring Semester		
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
MATH 181	Calculus II	4
Foreign Language		4
General Education Requirement course		3
Hours		14
Second Year		
Fall Semester		
MATH 210	Calculus III	3
MATH 215	Introduction to Advanced Mathematics	3
Foreign Language		4
General Education Requirement course		3-5
Electives		3
Hours		16-18
Spring Semester		
MATH 320	Linear Algebra I	3
MATH 300	Writing for Mathematics	1
Foreign Language		4
General Education Requirement course		3
General Education Requirement course		3
Hours		14
Third Year		
Fall Semester		
MATH 330	Abstract Algebra I	3

MATH 313	Analysis I	3
General Education Requirement course		3
General Education Requirement course		3-5
Electives		3
Hours		15-17
Spring Semester		
MSCS Electives ^b		6
Electives		9
Hours		15
Fourth Year		
Fall Semester		
Two MSCS electives (at least one at 400-level) ^b		6
Electives		9
Hours		15
Spring Semester		
One MSCS elective (at least one at 400-level) ^b		3
Electives		12
Hours		15
Total Hours		120

a *MATH 180 satisfies the LAS Quantitative Reasoning requirement with a grade of C or better.*

b *Electives chosen from mathematics, statistics, and mathematical computer science courses at the 200-level or higher, with the exception of MATH 310. At least 6 hours must be at the 400-level, excluding MATH 496, MCS 496, and STAT 496. See the Math advising guides for suggested elective options: Pure Mathematics, Applied Mathematics, Computational and Industrial Mathematics, and Probability and Statistics.*

Note: The requirement of two additional courses taken from any General Education category is satisfied by MATH 180 and MATH 181.