

Mathematics, Mathematics Honors (BSMath)

Degree-Bachelor of Science in Mathematics (BSMath)

The Bachelor of Science in Mathematics is designed with a twofold purpose: to offer students a more extensive scientific program that may better prepare them for graduate study or employment, and to recognize students who choose to pursue a more demanding program. Students are given the opportunity to develop greater breadth and depth in their mathematical programs as well as to combine mathematics with a concentration in another scientific discipline.

Students who plan to follow the honors concentration, must be admitted to the [Dean's Scholars Honors Program](#).

Total Hours Required: 120

Plan of Study

The Plan of Study is a suggested four-year course sequence to support academic planning and serves as a helpful guide. Currently enrolled students should meet with their academic advisor to tailor their course selections and timelines to their individual goals and circumstances.

Course	Title	Hours
Year 1		
Semester 1		
M 408D or M 427L	Sequences, Series, and Multivariable Calculus or Advanced Calculus for Applications II	4
Natural Science and Technology, Part I (030)		3
RHE 306	Rhetoric and Writing	3
First-Year Signature Course (090) approved by departmental honor advisor		3
PHY X16 & PHY X16L	Electricity and Magnetism and Laboratory for Physics 316	4
Hours		17
Semester 2		
M 427J	Differential Equations with Linear Algebra (honors section)	4
Natural Science and Technology, Part I (030)		3
Social and Behavioral Sciences (080)		3
PHY X01 & PHY X01L	Mechanics and Laboratory for Physics 301	4
Hours		14
Year 2		
Semester 1		
Hours chosen from: Upper-division Math course		3
Hours chosen from: Upper-division Math course		3
Natural Science and Technology, Part I (030)		3
Humanities (040)		3
BIO 315H	Advanced Introduction to Genetics: Honors	3
Hours		15
Semester 2		
Hours chosen from: Upper-division Math course		3
Hours chosen from: Upper-division Math course		3
GOV 310L	American and Texas Government	3
Natural Science and Technology, Part II (093)		3
BIO 325H	Genetics: Honors	3
Hours		15

Year 3		
Semester 1		
Hours chosen from: Upper-division Math course		3
M 365C	Real Analysis I	3
GOV 312L	Issues and Policies in American Government	3
Natural Science and Technology, Part II (093)		3
CH 301C	Foundations of Chemistry I	3
Hours		15
Semester 2		
Hours chosen from: Upper-division Math course		3
M 367K	Topology I	3
U.S. History (060)		3
RHE 309S	Critical Reading and Persuasive Writing (Restricted to students in the Dean Scholars Honors Program)	3
CH 302C	Foundations of Chemistry II	3
Hours		15
Year 4		
Semester 1		
Hours chosen from: Upper-division Math course		3
U.S. History (060)		3
Liberal Arts/Fine Arts course		3
RHE 309S	Critical Reading and Persuasive Writing (restricted to students in the Dean's Scholars Honors Program)	3
PHY X15 & PHY X15L	Wave Motion and Optics and Laboratory for Physics 315	4
Hours		16
Semester 2		
M 379H	Honors Tutorial Course	3
Visual and Performing Arts (050)		3
Free Elective		3
Free Elective		1
Liberal Arts/Fine Arts course		3
Hours		13
Total Hours		120

Requirements

All requirements are listed below, starting with the most specialized moving to the most general. Additional requirements may follow the table, so be sure to read the entire page. Some required courses listed below may also satisfy [General Education](#) requirements, including [Core Curriculum](#).

Code	Title	Hours
Degree		
Honors Breadth Requirement (Credit earned by examination may not be counted toward this requirement)		
Hours chosen from: Honors Mathematics course		3
Hours chosen from a single sequence below:		6
Sequence 1		
BIO 315H	Advanced Introduction to Genetics: Honors	
BIO 325H	Genetics: Honors	
Sequence 2		
CH 301C	Foundations of Chemistry I	
CH 302C	Foundations of Chemistry II	
Sequence 3		
PHY X01 & PHY X01L	Mechanics and Laboratory for Physics 301	
PHY X16 & PHY X16L	Electricity and Magnetism and Laboratory for Physics 316	
Hours chosen from: Courses listed above (must differ from original sequence chosen)		3

PHY X15 & PHY X15L	Wave Motion and Optics and Laboratory for Physics 315	4
Hours chosen from: Honors courses in the college		3
Additional Requirements		
M 427J	Differential Equations with Linear Algebra (must be a honor section)	4
Hours chosen from:		6
M 365C	Real Analysis I	
M 367K	Topology I	
M 373K	Algebraic Structures I	
Hours chosen from: Upper-division Mathematics (approved by the departmental faculty advisor)		20
Hours chosen from: (approved by departmental honors advisor)		3
UGS 302	First-Year Signature Course	
UGS 303	First-Year Signature Course	
Hours chosen from:		3
NSC X09.1	Planning Your Capstone Experience	
NSC X09.2	Health Science Scholars Capstone Experience Preparation	
NSC X09.4	Polymathic Capstone Field Invention	
Hours chosen from:		3
M 379H	Honors Tutorial Course	
NSC X23	Natural Sciences Topics	
and		
NSC 371	Capstone Thesis Seminar	
Hours chosen from: Additional coursework approved by the departmental honors advisor		30
Hours chosen from coursework from the College of Liberal Arts and/ or the College of Fine Arts		6
<i>Subtotal</i>		94
Free electives: Additional coursework to reach total hours required.		3
<i>Subtotal</i>		3
General Education		
Remaining Core Curriculum (42 hours total)		23
Foreign Language other than English, Beginning Proficiency		
<i>Subtotal</i>		23
<u>College Requirements - Natural Sciences</u>		
<u>General University Requirements</u>		
Total Hours		120

least 2.00. More information about grades and the grade point average is given in the [General Information Catalog](#).

M 408N and M 408S, or M 408K and M 408L, may substitute for M 408C

Additional Requirements and Policy

To graduate under Mathematics Honors, students must:

1. remain in good standing in the Dean's Scholars, Health Science Scholars, or Polymathic Scholars Honors Program;
2. submit an honors thesis and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum or CNS Honors Thesis Symposium

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At least 42 hours must be upper-division. At least 21 upper-division hours must be completed in residence at the University. At least 18 hours in mathematics must be completed in residence at the University.

Students must earn a grade of at least C- in each mathematics and science course required, and a grade point average in these courses of at