

Mathematics (B.S.)

2025-2026 Academic Catalog, Bachelor of Science – Mathematics

Academic Core for B.S. 47 Hours

CHRISTIAN STUDIES		6
CSBS 1311	Engaging the Old Testament	3
CSBS 1312	Engaging the New Testament	3
ENGLISH		9
ENGL 1321	Rhetoric & Composition I	3
ENGL 1322	Rhetoric & Composition II	3
ENGL	Literature	3
<i>A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.</i>		
EXERCISE & SPORT SCIENCE – SELECT TWO DIFFERENT COURSES		2
EXAC	Activity Course	1
EXAC	Activity Course	1
FINE ARTS – SELECT ONE		3
ARTS 1350	Art Appreciation	3
COMM 2335	Film Appreciation	3
FINA 2330	Exploring the Fine Arts	3
MUSI 1340	Music Appreciation	3
THEA 2350	Theatre Appreciation	3
WORLD CULTURES – SELECT ONE		3
ARTS 2354	World Art	3
EXSS 2353	Lifespan Nutrition	3
GLBL 2310	Cultural Immersion	3
HIST 1311	History of World Civilizations to 1500	3
HIST 1312	History of World Civilizations since 1500	3
HUMA 2355	Foundations of the Humanities	3
MUSI 2358	World Music	3
PHIL 2315	Introduction to Philosophy	3
LAB SCIENCE		8
PHYS 2421	Physics I with Calculus	4
	Laboratory Science Course	4
PUBLIC SPEAKING		3
COMM 1320	Public Speaking	3
MATHEMATICS		4
MATH 1430	Calculus I	4
RESEARCH METHODS OR INTERNSHIP		2
MATH 4293	Senior Seminar	2
SOCIAL SCIENCE – SELECT ONE		3
BECO 2310	Principles of Economics	3
PSYC 1301	General Psychology	3
EDUC 2399	Child and Adolescent Development	3
SOCI 1311	Introduction to Sociology	3
SOCW 2311	Introduction to Social Work	3
US HISTORY OR US GOVERNMENT – SELECT ONE		3
HIST 2311	American History to 1877	3
HIST 2312	American History since 1877	3
POLS 2305	United States Government	3
POLS 2306	Texas State and Local Government	3
FRESHMAN SEMINAR		1
UMHB 1101	Freshman Seminar	1
CHAPEL – 1 to 4 credits		
UMHB 1002	Chapel	
Fine Arts Experience – 2 to 8 credits		
UMHB 1005	Fine Arts Experience	

Mathematics 38 Hours

B.S. MATHEMATICS MAJOR REQUIRED COURSES		38
MATH 2303	Statistics	3
MATH 2320	Linear Algebra	3
MATH 2430	Calculus II	4
MATH 3093	Junior Seminar	0
MATH 3314	Geometry	3
MATH 3315	History of Mathematics	3
MATH 3320	Foundations of Higher Mathematics	3
MATH 3325	Ordinary Differential Equations	3
MATH 3430	Calculus III	4
MATH 3341	Numerical Analysis	3
MATH 4293	Senior Seminar	-
MATH 4310	Analysis	3
MATH 4320	Abstract Algebra	3
MATH 4385	Mathematical Probability and Statistics	3

The hours for MATH 4293 are already accounted for in the Academic Core

Electives 35 Hours

UPPER LEVEL ELECTIVES		6
You need 6 additional hours to reach your minimum 36 UL required hrs.		
ELECTIVES		29
You need 29 additional hours to reach your minimum 120 required hrs.		

Total Hours

Academic Core for B.S.	47
B.S. Mathematics Major Required Courses	38
Upper Level Electives	6
Electives	29
Total hours required for graduation	120

Additional Graduation Requirements

Minimum Upper Level hours	36
Minimum hours taken at UMHB	30
Minimum Upper Level hours taken at UMHB	24
Minimum cumulative GPA	2.0

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2025-2026 Academic Catalog, Bachelor of Science – Mathematics – DEGREE SEQUENCE

FRESHMAN FALL 16 Hours

MATH 1430	Calculus I	4
UMHB 1101	Freshman Seminar	1
CSBS 1311	Engaging the Old Testament	3
ENGL 1321	Rhetoric & Composition I	3
EXAC	Activity Course	1
	Elective/Minor	4
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

FRESHMAN SPRING 14 Hours

MATH 2430	Calculus II	4
MATH 2303	Statistics	3
ENGL 1322	Rhetoric and Composition II	3
	Elective/Minor	4
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

SOPHOMORE FALL 16 Hours

MATH 3325	Ordinary Differential Equations	3
MATH 2320	Linear Algebra	3
CSBS 1312	Engaging the New Testament	3
PHYS 2421	Physics I with Calculus	4
	Elective/Minor	3
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

SOPHOMORE SPRING 17 Hours

MATH 3320	Foundations of Higher Mathematics	3
MATH 3430	Calculus III	4
COMM 1320	Public Speaking	3
	Lab Science	4
	Elective/Minor	3
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

JUNIOR FALL 15 Hours

MATH 4310	Analysis	3
MATH 3314	Geometry	3
ENGL	Literature	3
	Social Science	3
	Elective/Minor	3
UMHB 1005	Fine Arts Experience	0

JUNIOR SPRING 15 Hours

MATH 4320	Abstract Algebra	3
MATH 3093	Junior Seminar	0
	World Cultures	3
	Fine Arts	3
	Elective/Minor	3
	Elective/Minor	3
UMHB 1005	Fine Arts Experience	0

SENIOR FALL 15 Hours

MATH 4385	Mathematical Probability and Statistics	3
MATH 3341	Numerical Analysis	3
	US History or US Government	3
	Elective/Minor	3
	Elective/Minor	3
UMHB 1005	Fine Arts Experience	0

SENIOR SPRING 12 Hours

MATH 3315	History of Mathematics	3
MATH 4293	Senior Seminar	2
EXAC	Activity Course	1
	Elective/Minor	3
	Elective/Minor	3
UMHB 1005	Fine Arts Experience	0

Total Credit Hours: 120

Bachelor of Science in Mathematics

Notes:

1. This sequence is a SAMPLE. Actual sequences will vary.
2. Courses in **red** are courses in all majors in mathematics. Courses in **green** are required for all degree plans. Courses in **purple** may be replaced with a foreign language or study abroad. Courses in **blue** would have to be replaced with specific courses for 7-12 Certification.
3. Students not beginning in Calculus 1 will need to adjust their schedules so that they complete Calculus 2 and Linear Algebra by the end of their third semester.
4. If rotation permits, Math 3430 and Math 3325 should be taken during the second year.
5. It is imperative that Math 3320 be taken by fourth semester. The degree will require four semesters after this course.
6. Math 4310, 4320, and 4385 rotate. The first course taken in the sequence may vary. For secondary education students and students applying to graduate school, these courses should be completed by the end of the seventh semester.
7. Math 3314 and 3341 rotate.
8. Math 3315 is offered every other spring and may need to be taken earlier.
9. Math 4293 should be taken during the last semester of classes and should be taken after Math 4310, 4320, and 4385 if possible.
10. Elective courses may be replaced by a foreign language or study abroad experience.
11. All students must complete 120 total hours.
12. All students must complete at least 36 upper level hours.
13. All students must complete 4 semesters of Chapel (UMHB 1002).
14. All students must complete a Fine Arts Experience (UMHB 1005) for each semester in attendance.