

Biology (B.S.) – Pre-Clinical Lab Science

2025-2026 Academic Catalog, Bachelor of Science – Biology, Pre-Clinical Lab Science

Academic Core for B.S.

46 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

A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.

EXERCISE & SPORT SCIENCE – SELECT TWO DIFFERENT COURSES **2**

EXAC	Activity Course	1
EXAC	Activity Course	1

FINE ARTS – SELECT ONE **3**

ARTS 1310	Drawing I	3
ARTS 1320	Design	3
ARTS 1350	Art Appreciation	3
ARTS 2360	Ceramics I	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
HIST 2350	An Introduction to the Politics and Culture of Ancient Greece and Rome	3
HUMA 2355	Foundations of the Humanities	3
MUSI 2358	World Music	3
PHIL 2315	Introduction to Philosophy	3

LAB SCIENCE **8**

CHEM 1410	General Chemistry I	4
CHEM 1420	General Chemistry II	4

PUBLIC SPEAKING **3**

COMM 1320	Public Speaking	3
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MATHEMATICS **3**

MATH 2303	Statistics	3
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RESEARCH METHODS OR INTERNSHIP **2**

BIOL 2170	Research Methods	1
BIOL 2171	Research Methods	1

SOCIAL SCIENCE – SELECT ONE **3**

BECO 2311	Principles of Macroeconomics	3
EDUC 2399	Child and Adolescent Development	3
PSYC 1301	General Psychology	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
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CHAPEL – 1 to 4 credits

UMHB 1002	Chapel	
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Fine Arts Experience – 2 to 8 credits

UMHB 1005	Fine Arts Experience	
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Biology – Pre-Clinical Lab Science

B.S. BIOLOGY MAJOR REQUIRED COURSES – PRE-CLS **34-35**

BIOL 1350	Biology for Science Majors I	3
BIOL 1150	Biology for Science Majors I Lab	1
BIOL 1360	Biology for Science Majors II	3
BIOL 1160	Biology for Science Majors II Lab	1
BIOL 3310	Genetics	3
BIOL 3110	Genetics Lab	1
BIOL 4090	Senior Evaluation	0
BIOL 4194	Capstone Writing	1
BIOL 4195	Capstone Seminar	1

Select one: **3-4**

BIOL 4370	Applied Ecology	
BIOL 4170	Applied Ecology Lab	
	or	
BIOL 3340	Immunology	
	or	
BIOL 4355	Adaptation & Phylogeny	
BIOL 4155	Adaptation and Phylogeny Lab	

Physiology Electives

BIOL 2380	Microbiology	3
BIOL 2180	Microbiology Lab	1

Biology Electives

BIOL	Biology Upper Level with Lab	4
BIOL	Any Biology with Lab	4
BIOL 3340	Immunology	3
BIOL	Biology Electives	2

No grade lower than a "C" will count toward fulfillment of Biology major requirements.

REQUIRED COURSES FOR PRE-CLINICAL LAB SCIENCE **11**

CHEM 3410	Organic Chemistry I	4
CHEM 3400	Quantitative Analysis	4
	or	
CHEM 4430	Biochemistry	4
MATH 1306	College Algebra	3

Electives

UPPER LEVEL ELECTIVES

As needed to reach your minimum 36 UL required hrs.

ELECTIVES

As needed to reach your minimum 120 required hrs.

Total Hours

Academic Core for B.S.	46
B.S. Biology Major Required Courses	34-35
Required Courses for Pre-Clinical Lab Science	11
Upper Level Electives	
Electives	
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

Biology (B.S.) – Pre-Clinical Lab Science

2025-2026 Academic Catalog, Bachelor of Science – Biology, Pre-Clinical Lab Science – DEGREE SEQUENCE

FRESHMAN FALL **15 Hours**

BIOL 1350/1150	Biology for Science Majors I	4
CHEM 1410	General Chemistry I	4
MATH 1306	College Algebra	3
ENGL 1321	Rhetoric & Composition I	3
UMHB 1101	Freshman Seminar	1
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

FRESHMAN SPRING **15 Hours**

BIOL 1360/1160	Biology for Science Majors II	4
CHEM 1420	General Chemistry II	4
COMM 1320	Public Speaking	3
ENGL 1322	Rhetoric & Composition II	3
EXAC	Activity Course	1
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

SOPHOMORE FALL **13 Hours**

BIOL 2170/2171	Research Methods	2
BIOL	Biology Elective	3
CHEM 3410	Organic Chemistry I	4
ENGL	Literature	3
	Electives	3
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

SOPHOMORE SPRING **17 Hours**

BIOL 3310/3110	Genetics	4
CSBS 1311	Engaging the Old Testament	3
	Elective	3
	Elective	3
BIOL 2180/2380	Microbiology with Lab	4
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

JUNIOR FALL **15 Hours**

BIOL	Any Biology with Lab	4
	CHEM 3400 or CHEM 4430	4
CSBS 1312	Engaging the New Testament	3
MATH 2303	Statistics	3
EXAC	Activity Course	1
UMHB 1005	Fine Arts Experience	0

JUNIOR SPRING **16 Hours**

	Upper Level Electives	3
	World Cultures	3
BIOL 3340	Immunology	3
	Social Science	3
	Elective	3
UMHB 1005	Fine Arts Experience	0

SENIOR FALL **15 Hours**

	Elective	3
BIOL	Biology Upper Level Elective	3
	Elective	2
BIOL	Biology Upper Level Elective with Lab	4
	Upper Level Electives	3
UMHB 1005	Fine Arts Experience	0

SENIOR SPRING **14 Hours**

BIOL 4090	Senior Evaluation	0
	Upper Level Electives	3
	Upper Level Electives	3
	Fine Arts	3
	US History or Government	3
BIOL 4194	Capstone Writing	1
BIOL 4195	Capstone Seminar	1
UMHB 1005	Fine Arts Experience	0

Total Credit Hours: 120