

Biology (B.S.) – Pre-Veterinary

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

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
PHYS 2411	General Physics I	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
PSYC 1301	General Psychology	3
PSYC 2399	Child and Adolescent Development	3
SOCI 1311	Introduction to Sociology	3
SOCW 2311	Introduction to Social Work	3

US HISTORY OR US GOVERNMENT 3

HIST 2311	American History to 1877	3
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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-Veterinary

B.S. BIOLOGY MAJOR REQUIRED COURSES – PRE-VETERINARY 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

Integrative Biology - 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	Biology Electives	5

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

REQUIRED COURSES FOR PRE-VETERINARY 26

CHEM 1420	General Chemistry II	4
CHEM 3410	Organic Chemistry I	4
CHEM 3420	Organic Chemistry II	4
CHEM 4430	Biochemistry	4
MATH 1306	College Algebra	3
MATH 1320	Pre Calculus	3
PHYS 2412	General Physics II	4

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-Veterinary	26
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-Veterinary

2025-2026 Academic Catalog, Bachelor of Science – Biology (B.S.) – Pre-Veterinary – 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
ENGL 1322	Rhetoric & Composition II	3
COMM 1320	Public Speaking	3
EXAC	Activity Course	1
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

SOPHOMORE FALL 15 Hours

BIOL 2170/2171	Research Methods	2
BIOL 2380/2180	Microbiology with Lab	4
CHEM 3410	Organic Chemistry I	4
BIOL	Biology Electives	2
ENGL	Literature	3
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

SOPHOMORE SPRING 15 Hours

BIOL	Biology Elective (BIOL 2330 suggested)	3
BIOL 3310/3110	Genetics	4
CHEM 3420	Organic Chemistry II	4
HIST 2311	American History to 1877	3
EXAC	Activity Course	1
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

JUNIOR FALL 16 Hours

CHEM 4430	Biochemistry	4
	Elective	3
CSBS 1311	Engaging the Old Testament	3
	Social Science	3
	Fine Arts	3
UMHB 1005	Fine Arts Experience	0

JUNIOR SPRING 14 Hours

BIOL	Biology Elective with Lab	4
MATH 2303	Statistics*	3
	Upper Level Electives	4
CSBS 1312	Engaging the New Testament	3
UMHB 1005	Fine Arts Experience	0

Take GRE spring of Junior year

SENIOR FALL 15 Hours

	Integrative Biology	4
BIOL 4194	Capstone Writing	1
PHYS 2411	General Physics I	4
MATH 1320	Pre Calculus	3
	Upper Level Electives	3
UMHB 1005	Fine Arts Experience	0

Apply to vet school fall of senior year

SENIOR SPRING 16 Hours

BIOL	Biology Upper Level lab elective	4
BIOL 4090	Senior Evaluation	0
BIOL 4195	Capstone Seminar	1
PHYS 2412	General Physics II	4
	World Cultures	3
	Upper Level Electives	3
UMHB 1005	Fine Arts Experience	0

Total Minimum Credit Hours: 120

- Scores needed to enroll in the following math courses: MATH 1306 (ACT 22; SAT 530) and MATH 1320 (ACT 24; new SAT 570).
- All courses in BOLD are offered only in the fall or spring semester as indicated.
- *TAMU College of Veterinary Medicine requires Animal Nutrition and an upper-level statistics course, which are not currently available at UMHB.
- CHEM 3410, CHEM 4430, & PHYS 2411 must be either completed or in progress at the time you apply to vet school.