

# Biology (B.S.) – Life Science 7-12 Cert.

2024-2025 Academic Catalog, Bachelor of Science – Biology, Life Science 7-12 Certification

## Academic Core for B.S. 49 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 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

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

PSYC 1301	General Psychology	3
PSYC 2399	Child and Adolescent Development	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

### CLASSROOM TECHNOLOGY 3

EDUC 2311	Classroom Technology	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 – Life Science 7-12 Cert 70 Hours

### B.S. BIOLOGY MAJOR REQUIRED COURSES 36

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 2170	Research Methods	-
BIOL 2171	Research Methods Lab	-
BIOL 3310	Genetics	3
BIOL 3110	Genetics Lab	1
BIOL 4090	Senior Evaluation	0
BIOL 4194	Capstone Writing	1
BIOL 4295	Capstone Seminar	2
BIOL 4370	Applied Ecology	3
BIOL 4170	Applied Ecology Lab	1

### Biology Electives

BIOL	Upper-level Elective with Lab	4
BIOL	Any Biology with Lab	4
BIOL	Biology Electives	5-6

### Physiology Elective – Select one

BIOL 2330	Foundations of Comparative Physiology or	3
BIOL 2140	Human Anatomy & Physiology I Lab	1
BIOL 2340	Human Anatomy & Physiology I or	3
BIOL 2180	Microbiology Lab	1
BIOL 2380	Microbiology	3

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

### Biology Required Support Courses 7

CHEM 3410	Organic Chemistry I	4
MATH 1306	College Algebra	3

### MINOR IN PEDAGOGY (SECONDARY LEVEL CERTIFICATION) 27

EDUC 3315	Students and Learning	3
EDUC 4324	Classroom Management	3
EDUC 4328	Curriculum Design	3
EDUC 4385	Educational Internship	3
READ 4326	Disciplinary Literacy	3
EDUC 4250	Certification Preparation Seminar	2
EDUC 4501	Student Teaching I	5
EDUC 4502	Student Teaching II	

### Electives 1 Hour

### UPPER LEVEL ELECTIVES 1

You need 1 additional hour to reach your minimum 120 required hrs.

### Total Hours

Academic Core for B.S.	49
B.S. Biology Major Required Courses	36
Biology Required Support Courses	7
Minor in Pedagogy (Secondary Level Certification)	27
Electives	1
<b>Total hours required for graduation</b>	<b>120</b>

### 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	2.75