

Chemistry (B.S.) – Biochemistry & Molecular Biology Emphasis

2024-2025 Academic Catalog, Bachelor of Science – Chemistry, Biochemistry and Molecular Biology Emphasis

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

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**

PHYS 2411	General Physics I	4
PHYS 2412	General Physics II	4

PUBLIC SPEAKING **3**

COMM 1320	Public Speaking	3
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MATHEMATICS **4**

MATH 1430	Calculus I	4
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RESEARCH METHODS OR INTERNSHIP **2**

CHEM 2181	Introduction to Chemical Research-Capstone I	1
CHEM 4181	Chemical Research-Capstone II	1

SOCIAL SCIENCE – SELECT ONE **3**

BECO 2310	Principles of Economics	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 – 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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Chemistry

57 Hours

B.S. CHEMISTRY MAJOR REQUIRED COURSES – BIOCHEMISTRY **35**

CHEM 1410	General Chemistry I	4
CHEM 1420	General Chemistry II	4
CHEM 2181	Introduction to Chemical Research-Capstone I	-
CHEM 3400	Quantitative Analysis	4
CHEM 3410	Organic Chemistry I	4
CHEM 3420	Organic Chemistry II	4
CHEM 3440	Physical Chemistry I	4
CHEM 4090	Senior Evaluation	0
CHEM 4181	Chemical Research-Capstone II	-
CHEM 4183	Seminar - Capstone III	1
CHEM 4345	Advanced Biochemistry	3
CHEM 4430	Biochemistry	4
CHEM	Chemistry Upper Level Electives	3-4

The hrs. for CHEM2181 and CHEM4181 are already accounted for in the Academic Core

REQUIRED COURSES FOR BIOCHEM & MOL BIO EMPHASIS **22**

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 2380	Microbiology	3
BIOL 2180	Microbiology Lab	1
BIOL 3310	Genetics	3
BIOL 3340	Immunology	3
BIOL 4305	Cell Biology	3
BIOL 4105	Cell Biology Lab	1

A grade of "C" or higher is required in all Chemistry courses counting toward the major

Electives

16 Hours

ELECTIVES **16**

You need 16 additional hours to reach your minimum 120 required hrs.

Total Hours

Academic Core for B.S.	47
B.S. Chemistry Major Required Courses	35
Required Courses for Biochemistry & Molecular Biology Emphasis	22
Electives	16
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