

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

2023-2024 Academic Catalog, Bachelor of Science – Chemistry, Biochemistry and Molecular Biology Emphasis

<b>Academic Core for B.S.</b>		<b>47 Hours</b>	<b>Chemistry</b>	<b>57 Hours</b>	
<b>CHRISTIAN STUDIES</b>		<b>6</b>	<b>B.S. CHEMISTRY MAJOR REQUIRED COURSES – BIOCHEMISTRY 35</b>		
CSBS 1311	Engaging the Old Testament	3	CHEM 1410	General Chemistry I	4
CSBS 1312	Engaging the New Testament	3	CHEM 1420	General Chemistry II	4
<b>ENGLISH</b>		<b>9</b>	CHEM 2181	Introduction to Chemical Research-Capstone I	-
ENGL 1321	Rhetoric & Composition I	3	CHEM 3400	Quantitative Analysis	4
ENGL 1322	Rhetoric & Composition II	3	CHEM 3410	Organic Chemistry I	4
ENGL	Literature	3	CHEM 3420	Organic Chemistry II	4
<i>A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.</i>			CHEM 3440	Physical Chemistry I	4
<b>EXERCISE &amp; SPORT SCIENCE – SELECT TWO DIFFERENT COURSES</b>		<b>2</b>	CHEM 4090	Senior Evaluation	0
EXAC	Activity Course	1	CHEM 4181	Chemical Research-Capstone II	-
EXAC	Activity Course	1	CHEM 4183	Seminar - Capstone III	1
<b>FINE ARTS – SELECT ONE</b>		<b>3</b>	CHEM 4345	Advanced Biochemistry	3
ARTS 1350	Art Appreciation	3	CHEM 4430	Biochemistry	4
COMM 2335	Film Appreciation	3	CHEM	Chemistry Upper Level Electives	3-4
FINA 2330	Exploring the Fine Arts	3	<i>The hrs. for CHEM2181 and CHEM4181 are already accounted for in the Academic Core</i>		
MUSI 1340	Music Appreciation	3	<b>REQUIRED COURSES FOR BIOCHEM &amp; MOL BIO EMPHASIS 22</b>		
THEA 2350	Introduction to the Theatre	3	BIOL 1350	Biology for Science Majors I	3
<b>WORLD CULTURES – SELECT ONE</b>		<b>3</b>	BIOL 1150	Biology for Science Majors I Lab	1
ARTS 2354	World Art	3	BIOL 1360	Biology for Science Majors II	3
EXSS 2353	Lifespan Nutrition	3	BIOL 1160	Biology for Science Majors II Lab	1
GLBL 2310	Cultural Immersion	3	BIOL 2380	Microbiology	3
HIST 1311	History of World Civilizations to 1500	3	BIOL 2180	Microbiology Lab	1
HIST 1312	History of World Civilizations since 1500	3	BIOL 3310	Genetics	3
MUSI 2358	World Music	3	BIOL 3340	Immunology	3
PHIL 2315	Introduction to Philosophy	3	BIOL 4305	Cell Biology	3
<b>LAB SCIENCE</b>		<b>8</b>	BIOL 4105	Cell Biology Lab	1
PHYS 2411	General Physics I	4	<i>A grade of "C" or higher is required in all Chemistry courses counting toward the major</i>		
PHYS 2412	General Physics II	4	<b>Electives 16 Hours</b>		
<b>PUBLIC SPEAKING</b>		<b>3</b>	<b>ELECTIVES 16</b>		
COMM 1320	Public Speaking	3	You need 16 additional hours to reach your minimum 120 required hrs.		
<b>MATHEMATICS</b>		<b>4</b>	<b>Total Hours</b>		
MATH 1430	Calculus I	4	Academic Core for B.S.	47	
<b>RESEARCH METHODS OR INTERNSHIP</b>		<b>2</b>	B.S. Chemistry Major Required Courses	35	
CHEM 2181	Introduction to Chemical Research-Capstone I	1	Required Courses for Biochemistry & Molecular Biology Emphasis	22	
CHEM 4181	Chemical Research-Capstone II	1	Electives	16	
<b>SOCIAL SCIENCE – SELECT ONE</b>		<b>3</b>	<b>Total hours required for graduation</b>	<b>120</b>	
BECO 2310	Principles of Economics	3	<b>Additional Graduation Requirements</b>		
PSYC 1301	General Psychology	3	Minimum Upper Level hours	36	
PSYC 2399	Child and Adolescent Development	3	Minimum hours taken at UMHB	30	
SOCI 1311	Introduction to Sociology	3	Minimum Upper Level hours taken at UMHB	24	
SOCW 2311	Introduction to Social Work	3	Minimum cumulative GPA	2.0	
<b>US HISTORY OR US GOVERNMENT – SELECT ONE</b>		<b>3</b>			
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			
<b>FRESHMAN SEMINAR</b>		<b>1</b>			
UMHB 1101	Freshman Seminar	1			
<b>CHAPEL – 1 to 4 credits</b>					
UMHB 1002	Chapel				
<b>Fine Arts Experience – 2 to 8 credits</b>					
UMHB 1005	Fine Arts Experience				