

Chemistry (B.S.) – Science 7-12 Cert. – Study Abroad

2023-2024 Academic Catalog, Bachelor of Science – Chemistry, Science 7-12 Cert., Global Emphasis: Study Abroad

Academic Core for B.S.

53 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	Introduction to the Theatre	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
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**

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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GLOBAL EMPHASIS – STUDY ABROAD **3**

	Study Abroad	3
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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 – Science 7-12 Cert

B.S. CHEMISTRY MAJOR REQUIRED COURSES **33**

CHEM 1410	General Chemistry I	4
CHEM 1420	General Chemistry II	4
CHEM 2181	Introduction to Chemical Research-Capstone I	-
CHEM 3001	Lab Assistantship	0
CHEM 3400	Quantitative Analysis	4
CHEM 3410	Organic Chemistry I	4
CHEM 3420	Organic Chemistry II	4
CHEM 3440	Physical Chemistry I	4
CHEM 3450	Physical Chemistry II	4
CHEM 4090	Senior Evaluation	0
CHEM 4181	Chemical Research-Capstone II	-
CHEM 4183	Seminar - Capstone III	1
CHEM 4300	Safety in the Academic Laboratory	3

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

1 – 3 hours from the following:

CHEM 3480	Environmental Chemistry	4
CHEM 4350	Advanced Inorganic Chemistry	3
CHEM 4430	Biochemistry	4
CHEM 4440	Instrumental Analysis	4
CHEM 4190-4490		
CHEM 4193-4493		

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

BIOLOGY MINOR REQUIRED COURSES **27**

BIOL 1350/1150	Biology for Science Majors I with Lab	4
BIOL 1360/1160	Biology for Science Majors II with Lab	4
BIOL 3310	Genetics	3
BIOL	BIOL Upper Level Elective	3
BIOL	BIOL Elective	5
GEOL 1401	Physical Geology	4
GEOL 1402	Historical Geology	4

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	5

Total Hours

Academic Core for B.S.	50
Global Emphasis – Study Abroad	3
B.S. Chemistry Major Required Courses	33
Biology Minor Required Courses	27
Minor in Pedagogy (Secondary Level Certification)	27
Total hours required for graduation	140

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