

# Chemistry (B.S.)

2025-2026 Academic Catalog, Bachelor of Science – Chemistry

## Academic Core for B.S.

**47 Hours**

<b>CHRISTIAN STUDIES</b>		<b>6</b>
CSBS 1311	Engaging the Old Testament	3
CSBS 1312	Engaging the New Testament	3

<b>ENGLISH</b>		<b>9</b>
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.*

<b>EXERCISE &amp; SPORT SCIENCE – SELECT TWO DIFFERENT COURSES</b>		<b>2</b>
EXAC	Activity Course	1
EXAC	Activity Course	1

<b>FINE ARTS – SELECT ONE</b>		<b>3</b>
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

<b>WORLD CULTURES – SELECT ONE</b>		<b>3</b>
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

<b>LAB SCIENCE</b>		<b>8</b>
PHYS 2411	General Physics I	4
PHYS 2412	General Physics II	4

<b>PUBLIC SPEAKING</b>		<b>3</b>
COMM 1320	Public Speaking	3

<b>MATHEMATICS</b>		<b>4</b>
MATH 1430	Calculus I	4

<b>RESEARCH METHODS OR INTERNSHIP</b>		<b>2</b>
CHEM 2181	Introduction to Chemical Research-Capstone I	1
CHEM 4181	Chemical Research-Capstone II	1

<b>SOCIAL SCIENCE – SELECT ONE</b>		<b>3</b>
BECO 2311	Principles of Macroeconomics	3
EDUC 2399	Child and Adolescent Development	3
PSYC 1301	General Psychology	3
SOCI 1311	Introduction to Sociology	3
SOCW 2311	Introduction to Social Work	3

<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	

## Fine Arts Experience – 2 to 8 credits

UMHB 1005	Fine Arts Experience
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## Chemistry

**33 Hours**

### 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 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

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

### Chemistry Electives – Select 4-6 hrs. 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*

## Electives

**40 Hours**

### UPPER LEVEL ELECTIVES 10

You need 10 additional hours to reach your minimum 36 UL required hrs.

### ELECTIVES 30

You need 30 additional hours to reach your minimum 120 required hrs.

## Total Hours

Academic Core for B.S.	47
B.S. Chemistry Major Required Courses	33
Upper Level Electives	10
Electives	30
<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	2.0

# Chemistry (B.S.)

2025-2026 Academic Catalog, Bachelor of Science – Chemistry – DEGREE SEQUENCE

## **FRESHMAN FALL** **14 Hours**

CHEM 1410	General Chemistry I with Lab	4
CSBS 1311	Old Testament	3
ENGL 1321	Rhetoric & Composition I	3
	Elective (MATH 1306 recommended)	3
UMHB 1101	First Year Seminar	1
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

## **FRESHMAN SPRING** **14 Hours**

CHEM 1420	General Chemistry II	4
CSBS 1312	Engaging the New Testament	3
ENGL 1322	Rhetoric & Composition II	3
EXAC	Activity Course	1
	Elective (MATH 1320 recommended)	3
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

## **SOPHOMORE FALL** **15 Hours**

CHEM 3410	Organic Chemistry I	4
EXAC	Activity Course	1
ENGL	Literature	3
PHYS 2411	General Physics I	4
	Elective	3
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

## **SOPHOMORE SPRING** **17 Hours**

CHEM 3420	Organic Chemistry II	4
CHEM 2181	Introduction to Chem Research Capstone I	1
MATH 1430	Calculus I	4
PHYS 2412	General Physics II	4
	Elective	4
UMHB 1002	Chapel	0
UMHB 1005	Fine Arts Experience	0

## **JUNIOR FALL** **17 Hours**

CHEM 3400	Quantitative Analysis	4
CHEM 3440	Physical Chemistry I	4
	Social Science	3
COMM 1320	Public Speaking	3
	Elective	3
UMHB 1005	Fine Arts Experience	0

## **JUNIOR SPRING** **15 Hours**

CHEM 3450	Physical Chemistry II	4
CHEM 4181	Chemical Research Capstone II	1
	US History or US Government	3
	Elective	3
	Upper Level Elective	4
UMHB 1005	Fine Arts Experience	0

## **SENIOR FALL** **15 Hours**

CHEM 4183	Chemical Research Capstone III	1
	Elective	4
	Fine Arts	3
CHEM	Chemistry Elective (CHEM 4430 recommended)	4
	Upper Level Elective	3
UMHB 1005	Fine Arts Experience	0

## **SENIOR SPRING** **13 Hours**

CHEM 4090	Senior Evaluation	0
	Elective (CHEM 4440 recommended)	4
	Elective (CHEM 4345 recommended)	3
	World Cultures	3
	Upper Level Elective	3
UMHB 1005	Fine Arts Experience	0

**Total Credit Hours: 120**