



Department of Chemistry and Forensic Science
College of Science, Technology, Engineering, and

Math (2025-26)

Suggested Curriculum Guide for BS Chemistry, Pre-Health Concentration including Pre-Dental, Pre-Medical, Pre-Optometry, and Pre-Physician Assistant

Freshman (1st Semester) 17 hrs

GSD 101- Foundations in Learning
CHE 111- General Chemistry I
CHE 111L- General Chemistry I
Lab MAT 234- Calculus I
Gen. Ed. 1A (ENG 101)
^c PSY 200 or ^c SOC 131 (*fulfills Gen. Ed. 5B*)

Sophomore (1st Semester) 17 hrs

^c BIO 208- Human Anatomy and Physiology I
BIO 208L- Human Anatomy and Physiology I Lab
CHE 250 (*fall only*) - Descriptive Inorganic Chemistry
CHE 250L (*fall only*)- Descriptive Inorganic Chemistry
Lab CHE 361- Organic Chemistry I
CHE 361L- Organic Chemistry I Lab
^c PHY 131 or 201 (*fulfills Gen. Ed. 4*)- College Physics I or University Physics I

Junior (1st Semester) 15 hrs

Free Elective (*BIO 111 & BIO 111L recommended*)- Cell and Molecular Biology/Lab
CHE 385 (*fall only*)- Chemical Literature
400-level CHE/FOR elective (*CHE 411 or 495A/B recommended*)-
Practicum or Independent Chemical Research/Chemistry Laboratory
Independent Research
CHE 430- Biochemistry of Macromolecules
Gen. Ed. 3B Course 2

Senior (1st Semester) 15 hrs

CHE 402 (*fall only*)- Polymers and Particles
CHE 471- Principles of Physical Chemistry I
CHE 471L- Principles of Physical Chemistry I
Lab PHI 383- Health and Biomedical Ethics
400-level CHE/FOR elective
Gen. Ed. 2 (*Quantitative Reasoning*)

Freshman (2nd Semester) 17 hrs

3	Free Elective (<i>BIO 112 & BIO 112L recommended</i>)- Ecology and	4
3	Evolution/Lab	
1	CHE 112- General Chemistry II	3
4	CHE 112L- General Chemistry II Lab	1
3	Gen. Ed. 1B (<i>ENG 102</i>)	3
3	Gen. Ed. 1C (<i>Oral Comm.</i>)	3

Sophomore (2nd Semester) 14 hrs

3	BIO 308- Human Anatomy and Physiology II	3
1	BIO 308L- Human Anatomy and Physiology II Lab	1
3	CHE 362- Organic Chemistry II	3
1	CHE 362L- Organic Chemistry II Lab	1
3	PHY 132 <u>or</u> 202- College Physics II <u>or</u> University Physics II	5
1	Free Elective	1
5		

Junior (2nd Semester) 15 hrs

4	CHE 432- Biochemistry Lab	1
	400-level CHE/FOR elective (<i>CHE 431 recommended</i>)	3
3	Gen. Ed. 3B (<i>Humanities</i>) Course 1	3
2	CHE 325- Analytical Chemistry	3
	CHE 325L- Analytical Chemistry Lab	2
	BIO 331- Cell Biology	3
3		
3		

Senior (2nd Semester) 13 hrs

1	CHE 485- Chemistry Seminar	1
3	400-level CHE/FOR elective	3
1	Gen. Ed. 5A (<i>History</i>)	3
3	Gen. Ed. 5B Course 2	3
4	Gen. Ed. 3A (<i>Arts</i>)	3
3		

^c Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.

UNIVERSITY GRADUATION REQUIREMENTS

General Education
Foundations in Learning (GSD 101; waived for transfers with 30+ hrs)

39 hours
36 hours
3 hours

MAJOR REQUIREMENTS

Core Courses

CHE 111, CHE 111L, CHE 112, CHE 112L, CHE 250, CHE 250L, CHE 325, CHE 325L, CHE 361, CHE 361L, CHE 362, CHE 362L, CHE 385, CHE 430, CHE 432, CHE 471, CHE 471L, CHE 485, MAT 234

41 hours

Concentration Requirements

CHE 402

13 hours

PLUS TWELVE (12) HOURS 400-level CHE or FOR electives. (If CHE 495 is taken, only 3 hours can be applied to the major).

Supporting Course Requirements

^c BIO 208, BIO 208L, BIO 308, BIO 308L BIO 331, PHI 383, PHY 131 or PHY 201, PHY 132 or PHY 202,
^c PSY 200 or ^c SOC 131

18 hours

Free Electives

9 hours

Total Curriculum Requirements

120 hours

