



Science

Department of Chemistry and Forensic

College of Science, Technology, Engineering,
and Math (2025-26)

Suggested Curriculum Guide for B.S. Chemistry, Chemistry Teaching Concentration

Freshman (1st Semester) 18 hrs

GSD 101- Foundations in Learning
CHE 111- General Chemistry I
CHE 111L- General Chemistry I
Lab MAT 234- Calculus I
⁶ BIO 111- Cell and Molecular Biology
BIO 111L- Cell and Molecular Biology Lab
Gen. Ed. 1A (*ENG 101*)

Sophomore (1st Semester) 16.5 hrs

EDF 219- Human Development and Learning
CED 200- Clinical II: Understanding the Learner
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
⁶ PHY 131 *or* 201 (*fulfills Gen. Ed. 4*)- College Physics I *or* University Physics I

❖ 30 hrs complete + apply to professional education program

Junior (1st Semester) 17 hrs

CHE 325- Analytical Chemistry CHE
325L- Analytical Chemistry Lab CHE
385- Chemical Literature
Gen. Ed. 5A (*History*)
Gen. Ed. 3B Course 1
Gen. Ed. 2 (*Quantitative Reasoning*)

Senior (1st Semester) 14 hrs

ESE 561 (*fall only*)- Teaching Science in the Secondary Schools
CED 450 (*fall only*)- Clinical V: Practicing Teaching
CHE 485- Chemistry Teaching
Gen. Ed. 3A (*Arts*)
Gen. Ed. 3B (*Humanities*) Course 2
Gen. Ed. 5B (*Soc. & Behav. Sci.*) Course 2

APPLY FOR STUDENT TEACHING

Freshman (2nd Semester) 16.5 hrs

3 EDF 203- Educational Foundations
3 CED 100- Clinical I: Intro to the Education Prof.
1 ⁶ SED 104 Special Education Introduction
4 CHE 112- General Chemistry II
3 CHE 112L- General Chemistry II Lab
1 Gen. Ed. 1B (*ENG 102*)
3 Gen. Ed. 1C (*Oral Comm.*)

Sophomore (2nd Semester) 15.5 hrs

3 EDC 300- Differentiation Inclusive Classroom
0.5 EDF 204- Emerging Instructional Technologies
3 EMS 300W- Curriculum & Instructional Design
0.5 CED 300- Clinical III: Curriculum and Instruct. Des.
3 GLY 109- Great Moments in Earth History
3 CHE 362- Organic Chemistry II
1 CHE 362L- Organic Chemistry II Lab

Junior (2nd Semester) 14.5 hrs

3 EDF 413- Assessment in Education
2 EMS 490- Classroom & Behavior Management in P-12
3 CED 400- Clinical IV: Diagnosis & perception
0.5 CHE 430- Biochemistry of Macromolecules
3 CHE 432- Biochemistry Lab
1 CHE 471- Principles of Physical Chemistry I
3 CHE 471L- Principles of Physical Chemistry I Lab

Senior (2nd Semester) 12 hrs

3 CED 499- Supervised Student Teaching P-12
3 EMS 474- Disciplinary Literature

⁶ 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

Supporting Course Requirements

⁶ BIO 111, BIO 111L, GLY 109, ⁶ PHY 131 *or* ⁶ PHY 201

6 hours

Professional Education Requirements

EDC 300, EDF 203, EDF 204, EDF 219, EDF 413, EMS 300W, EMS 474, EMS 490, ESE 561, ⁶SED 104

38 hours

PLUS TWELVE (12) HOURS of Clinical Experiences to include:

CED 100, CED 200, CED 300, CED 400, CED 450, CED 499

(Following this curriculum and passing the appropriate standardized teacher exams will lead to certification to teach chemistry at the secondary education level.)

Free Electives

0 hours

Total Curriculum Requirements

124 hours

