



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

Math (2025-26)

**Suggested Curriculum Guide for BS Chemistry, Chemistry Concentration with ACS Certification**

**Freshman (1<sup>st</sup> Semester) 17 hrs**

|                                  |   |
|----------------------------------|---|
| GSD 101- Foundations in Learning | 3 |
| CHE 111- General Chemistry I     | 3 |
| CHE 111L- General Chemistry I    | 1 |
| Lab MAT 234- Calculus I Lab      | 4 |
| Gen. Ed. 1A ( <i>ENG 101</i> )   | 3 |
| Gen. Ed. 3A ( <i>Arts</i> )      | 3 |

**Sophomore (1<sup>st</sup> Semester) 16 hrs**

|                                                                                                                      |   |
|----------------------------------------------------------------------------------------------------------------------|---|
| CHE 250 ( <i>fall only</i> )- Descriptive Inorganic Chemistry                                                        | 3 |
| CHE 250L ( <i>fall only</i> )- Descriptive Inorganic Chemistry Lab                                                   | 1 |
| CHE 361- Organic Chemistry I                                                                                         | 3 |
| CHE 361L- Organic Chemistry I Lab                                                                                    | 1 |
| <sup>6</sup> PHY 131 <i>or</i> #201 ( <i>fulfills Gen. Ed. 4</i> )- College Physics I <i>or</i> University Physics I | 5 |
| Free Elective                                                                                                        | 3 |

**Junior (1<sup>st</sup> Semester) 17 hrs**

|                                                   |   |
|---------------------------------------------------|---|
| Gen. Ed. 4 ( <i>Natural Sciences</i> )            | 3 |
| CHE 385 ( <i>fall only</i> )- Chemical Literature | 3 |
| Advanced Chemistry Course                         | 4 |
| Gen. Ed. 5B Course 2                              | 3 |
| Free Elective                                     | 4 |

**Senior (1<sup>st</sup> Semester) 15 hrs**

|                                                |   |
|------------------------------------------------|---|
| CHE 402- Polymers and Particles                | 1 |
| Advanced Chemistry Course                      | 4 |
| CHE 471- Principles of Physical Chemistry I    | 3 |
| CHE 471L- Principles of Physical Chemistry I   | 1 |
| Lab Gen. Ed. 3B ( <i>Humanities</i> ) Course 2 | 3 |
| Free Elective                                  | 3 |

**Freshman (2<sup>nd</sup> Semester) 17 hrs**

|                                                          |   |
|----------------------------------------------------------|---|
| CHE 112- General Chemistry II                            | 3 |
| CHE 112L- General Chemistry II Lab                       | 1 |
| MAT 244- Calculus II                                     | 4 |
| Gen. Ed. 1B ( <i>ENG 102</i> )                           | 3 |
| Gen. Ed. 1C ( <i>Oral Comm.</i> )                        | 3 |
| Gen. Ed. 5B ( <i>Social &amp; Behav. Sci.</i> ) Course 1 | 3 |

**Sophomore (2<sup>nd</sup> Semester) 14 hrs**

|                                                                    |   |
|--------------------------------------------------------------------|---|
| CHE 325- Analytical Chemistry CHE                                  | 3 |
| 325L- Analytical Chemistry Lab CHE                                 | 2 |
| 362- Organic Chemistry II                                          | 3 |
| CHE 362L- Organic Chemistry II Lab                                 | 1 |
| PHY 132 or 202- College Physics II <i>or</i> University Physics II | 5 |

**Junior (2<sup>nd</sup> Semester) 13 hrs**

|                                                          |   |
|----------------------------------------------------------|---|
| CHE 430- Biochemistry of Macromolecules                  | 3 |
| CHE 432- Biochemistry Lab                                | 1 |
| Gen. Ed. 3B Course 1                                     | 3 |
| CSC 174- Intro. to Programming for Science & Engineering | 3 |
| Free Elective                                            | 3 |

**Senior (2<sup>nd</sup> Semester) 12 hrs**

|                                                               |     |
|---------------------------------------------------------------|-----|
| CHE 485- Chemistry Seminar                                    | 1   |
| +Advanced Chemistry Course                                    | 3-4 |
| Gen. Ed. 5A ( <i>History</i> )                                | 3   |
| Gen. Ed. 2 ( <i>STA 270 recommended</i> )- Applied Statistics | 3   |
| Free Elective                                                 | 2-3 |

<sup>6</sup> 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

**..12-13 hours**

PLUS 3 of the 4 Advanced Chemistry courses selected from the following:  
[CHE 425, CHE 425L], CHE 431, [CHE 450, CHE 450L], CHE 472

**Supporting Course Requirements**

CSC 174, MAT 244, <sup>6</sup> PHY 131 or PHY 201, PHY 132 or PHY 202

**14 hours**

**Free Electives**

**..13-14 hours**

**Total Curriculum Requirements**

**120 hours**