



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

Freshman (1st Semester) 18 hrs

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

Sophomore (1st 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
^a PHY 131 <i>or</i> 201 (<i>fulfills Gen. Ed. 2B</i>)- College Physics I <i>or</i> University Physics I	5
Gen. Ed. 1C (<i>Oral Comm.</i>)	3

Junior (1st Semester) 16 hrs

CHE 385 (<i>fall only</i>)- Chemical Literature	3
BIO 315 or BIO 320- Genetics or Principles of Microbiology	4
BIO 331- Cell Biology	3
Gen. Ed. 3B (<i>Humanities</i>)	3
Free Elective	3

Senior (1st Semester) 14 hrs

Gen. Ed. 3A (<i>Arts</i>)	3
Gen. Ed. 4B Course	3
CHE 425 (<i>fall only</i>)- Instrumental Analysis	3
CHE 425L (<i>fall only</i>)- Instrumental Analysis Lab	1
CHE 485- Chemistry Seminar	1
Free Elective	3

Freshman (2nd Semester) 14 hrs

BIO 112- Ecology and Evolution	3
BIO 112L- Ecology and Evolution Lab	1
CHE 112- General Chemistry II	3
CHE 112L- General Chemistry II Lab	1
STA 215 - Intro. to Statistical Reasoning	3
Gen. Ed. 1B (<i>ENG 102</i>)	3

Sophomore (2nd Semester) 14 hrs

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

Junior (2nd Semester) 14 hrs

CHE 431 (<i>spring only</i>)- Metabolic Biochemistry	3
CHE 432- Biochemistry Lab	1
CHE 471- Principles of Physical Chemistry I	3
CHE 471L- Principles of Physical Chemistry I Lab	1
Gen. Ed. 4A (<i>History</i>)	3
CHE 430- Biochemistry of Macromolecules	3

Senior (2nd Semester) 14 hrs

† CHE 411, 495A/B, or 401L- Practicum, Independent Chemical Research/Chemistry Laboratory Independent Research, Chemtopics Lab	1
Gen. Ed. (Flex)	3
Gen. Ed. 2A	3
‡CHE/FOR/BIO 400/500 Elective (<i>+BIO 531 recommended</i>)- Principles of Molecular Biology	4
Free Elective	3

^a 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)

33 hours

30 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 425, CHE 425L, CHE 431

12 hours

† PLUS ONE (1) HOUR selected from the following:
CHE 401L, CHE 411, CHE 495A, CHE 495B

‡ PLUS FOUR (4) HOURS selected from either 400 or 500-level CHE or FOR or BIO electives or 300-level or higher FMT electives. (If CHE 495 is taken, only 3 hours can be applied to the major).

Supporting Course Requirements

^aBIO 111, BIO 111L, ^aBIO 112, BIO 112L, BIO 315 or BIO 320, BIO 331, ^aMAT 234, STA 215, ^aPHY 131 or ^aPHY 201, PHY 132 or PHY 202

25 hours

Free Electives

9 hours

Total Curriculum Requirements

120 hours