



Department of Biological Sciences
College of Science, Technology, Engineering,
and Math (2026-27)

Suggested Curriculum Guide for BS Biological Sciences, Teaching Concentration

Freshman (1st Semester) 17-19 hrs

GSD 101- Foundations in Learning	3
BIO 111/L- Cell and Molecular Biology/Lab	4
CHE 111 (<i>fulfills Gen. Ed.</i>)- General Chemistry I	3
CHE 111L- General Chemistry I Lab	1
MAT Requirement (<i>fulfills Gen. Ed.</i>)	3-5
Gen. Ed. Element	3

Sophomore (1st Semester) 17 hrs

BIO 319- Zoology	4
CHE 361- Organic Chemistry I	3
CHE 361L- Organic Chemistry I Lab	1
Gen. Ed. Element	3
Gen. Ed. Element	3
Gen. Ed. Element	3

❖ 30 hrs complete + apply to professional education program

Junior (1st Semester) 14.5-16.5 hrs

EDC 300- Differentiation Inclusive Classrooms	3
EDF 204- Emerging Instructional Technologies	2
CED 300- Clinical III: Curriculum and Instruct. Des.	0.5
EMS 300- Curriculum & Instructional Design	3
BIO 331, 348, 500, <i>or</i> 532- Cell Biology, Vertebrate Physiology, Environmental Issues, <i>or</i> Conservation Biology	3
PHY 101, PHY 131 <i>or</i> GLY 109 Conceptual Physics, College Physics I, or Great Moments in Earth History	3-5

Senior (1st Semester) 12 hrs

ESE 561- Teaching Science in the Secondary Schools	3
CED 450 (<i>fall only</i>)- Clinical V: Practicing Teaching	1
BIO 316- Ecology	4
BIO 495- Evolution Theory and Application	1
Gen. Ed. Element	3

Freshman (2nd Semester) 17 hrs

EDF 203- Philosophical & Historical Found. of Ed.	3
CED 100- Clinical I: Intro to the Education Prof.	0
SED 104 Introduction to Special Education	3
BIO 112/L- Ecology and Evolution/Lab	4
CHE 112- General Chemistry II	3
CHE 112L- General Chemistry II Lab	1
Gen. Ed. Element	3

Sophomore (2nd Semester) 16 hrs

EDF 219- Human Development and Learning	3
CED 200- Clinical II: Understanding the Learner	0
BIO 318- Botany	4
BIO 331, 348, 500, <i>or</i> 532- Cell Biology, Vertebrate Physiology, Environmental Issues, <i>or</i> Conservation Biology	3
Gen. Ed. Element	3
Gen. Ed. Element	3

Junior (2nd Semester) 14.5 hrs

EDF 413- Assessment in Education	3
EMS 490- Classroom & Behavior Management in P-12	3
CED 400- Clinical IV: Diagnosis & Perception	0.5
BIO 320- Principles of Microbiology	4
BIO 315- Genetics	4

Senior (2nd Semester) 12 hrs

CED 499- Supervised Student Teaching P-12	9
EMS 474- Teaching Content Reading	3

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

* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division BIO courses. CHE 111/111L, 112/112L, MAT 112 or higher.

❖ Student must have completed 30 hours by the end of the second semester and apply for admission to Professional Education Program.

⦿ Must be completed before enrolling in CED 300 and applying to the Teacher Ed. program.

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

BIO 111, BIO 112, BIO 315, BIO 316, BIO 318, BIO 319, BIO 320, BIO 495

29 hours

Concentration Requirements

BIO 331, BIO 348, BIO 500, BIO 532

6 hours

Supporting Course Requirements

[⊖] CHE 111, CHE 111L, CHE 112, CHE 112L, CHE 361, CHE 361L, [⊖] PHY 101 or [⊖] PHY 131 or [⊖] GLY 109

14-16 hours

† PLUS ONE (1) MATHEMATICS COURSE SELECTED FROM (any of which can count towards General Education, Element 2):

[⊖]* MAT 120, [⊖]* MAT 122, [⊖]* MAT 211, [⊖]* MAT 234

Professional Education Requirements

EDC 300, EDF 203, EDF 204, EDF 219, EDF 413, EMS 300, EMS 474, EMS 490, ESE 561, [⊖] SED 104

45 hours

PLUS ELEVEN (11) HOURS of Clinical Experiences to include:

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

Total Curriculum Requirements

122-127 hours