



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

**Suggested Curriculum Guide for BS Biological Sciences, Teaching Concentration**

**Freshman (1<sup>st</sup> Semester) 17-19 hrs**

GSD 101- Foundations in Learning  
BIO 111/L- Cell and Molecular Biology/Lab  
<sup>G</sup>CHE 111 (*fulfills Gen. Ed. 4*)- General Chemistry I  
CHE 111L- General Chemistry I Lab  
<sup>G</sup>† MAT Requirement (*fulfills Gen. Ed. 2*)  
Gen. Ed. 1A (*ENG 101*)

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**Freshman (2<sup>nd</sup> Semester) 17.5 hrs**

EDF 203- Philosophical & Historical Found. of Ed.  
CED 100- Clinical I: Intro to the Education Prof.  
SED 104 Introduction to Special Education  
BIO 112/L- Ecology and Evolution/Lab  
CHE 112- General Chemistry II  
CHE 112L- General Chemistry II Lab  
Gen. Ed. 1B (*ENG 102*)

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

BIO 319- Zoology  
CHE 361- Organic Chemistry I  
CHE 361L- Organic Chemistry I Lab  
Gen. Ed. 1C (*Oral Comm.*)  
Gen. Ed. 3B (*Humanities*) (*PHI 110, 130, 300, or 320*)  
Gen. Ed. 5B (*Soc. & Behav. Sci.*)  
30 hrs complete + apply to professional education program

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**Sophomore (2<sup>nd</sup> Semester) 16.5 hrs**

EDF 219- Human Development and Learning  
CED 200- Clinical II: Understanding the Learner  
BIO 318- Botany  
BIO 331, 348, 500, or 532- Cell Biology, Vertebrate Physiology, Environmental Issues, or Conservation Biology  
Gen. Ed. 3A (*Arts*)  
Gen. Ed. 5A (*History*)

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**Junior (1<sup>st</sup> Semester) 14.5-16.5 hrs**

EDC 300- Differentiation Inclusive Classrooms  
EDF 204- Emerging Instructional Technologies  
CED 300- Clinical III: Curriculum and Instruct. Des.  
EMS 300- Curriculum & Instructional Design  
BIO 331, 348, 500, or 532- Cell Biology, Vertebrate Physiology, Environmental Issues, or Conservation Biology  
<sup>G</sup>PHY 101, PHY 131 or GLY 109 (*fulfills Gen. Ed. 4*)-  
Conceptual Physics, College Physics I, or Great Moments in Earth History

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**Junior (2<sup>nd</sup> Semester) 14.5 hrs**

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

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**Senior (1<sup>st</sup> Semester) 12-14 hrs**

ESE 561- Teaching Science in the Secondary Schools  
CED 450 (*fall only*)- Clinical V: Practicing Teaching  
BIO 316- Ecology  
BIO 495- Evolution Theory and Application  
Gen. Ed. 3B Course 2  
Free Elective

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

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

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<sup>G</sup> 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.

**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**

BIO 111/111L, BIO 112/112L, 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**

<sup>G</sup>CHE 111, CHE 111L, CHE 112, CHE 112L, CHE 361, CHE 361L, <sup>G</sup>PHY 101 or <sup>G</sup>PHY 131 or <sup>G</sup>GLY 109

**11 hours**

PLUS ONE (1) MATHEMATICS COURSE SELECTED FROM (any of which can count towards General Education, Element 2): <sup>G</sup>

\* MAT 120, <sup>G</sup>\* MAT 122, <sup>G</sup>\* MAT 211, <sup>G</sup>\* 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

**37 hours**

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

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

