



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

Suggested Curriculum Guide for B.S. in Biomedical Sciences, Pre-Dental Concentration

Freshman (1st Semester) 17 hrs

GSD 101- Foundations in Learning
BIO 111/L- Cell and Molecular Biology/Lab
^G CHE 111 (*fulfills Gen. Ed. 4*)- General Chemistry I
CHE 111L- General Chemistry I Lab
Gen. Ed. 1A (*ENG 101*)
Gen. Ed. 5A (*History*)

Sophomore (1st Semester) 16-17 hrs

CHE 361- Organic Chemistry I
CHE 361L- Organic Chemistry I Lab
^G PHY 131 *or* PHY 201 (*fulfills Gen. Ed. 4*)- College Physics I or University Physics I
^G STA 215 *or* STA 270 (*fulfills Gen. Ed. 2*)- Intro. to Statistical Reasoning or Applied Statistics I
Gen. Ed. 3A (*Arts*)

Junior (1st Semester) 18 hrs

BIO 331- Cell Biology
BIO 315- Genetics
BIO 319- Zoology
CHE 430 Biochemistry of Macromolecules *or* CHE 431- Metabolic Biochemistry (*spring only* → →)
BIO 342 Comparative Vertebrate Anatomy *or* Free Elective

Senior (1st Semester) 13-16 hrs

† Restricted Elective
PHI 383- Health & Biomedical Ethics
Gen. Ed. 3B course 2
Free Elective
Free Elective

Freshman (2nd Semester) 14-16 hrs

BIO 112/L- Ecology and Evolution/Lab
CHE 112- General Chemistry II
CHE 112L- General Chemistry II Lab
MAT 120 *or higher* (*MAT 234 recommended*)- Trigonometry (Calculus I recommended)
Gen. Ed. 1B (*ENG 102*)

Sophomore (2nd Semester) 15 hrs

BIO 320- Principles of Microbiology
BIO 332- Careers in Biomedical Sciences
CHE 362-Organic Chemistry II
CHE 362L- Organic Chemistry II Lab
Gen Ed. 3B (*Humanities*) course 1
Gen. Ed. 5B (*ECO 230 recommended*)

Junior (2nd Semester) 12-13 hrs

BIO 348- Vertebrate Physiology
INF 104- Computer Literacy with Software Apps.
† Restricted Elective
Gen. Ed. 1C (*CMS 100 or 210*)

Senior (2nd Semester) 13-16 hrs

BIO 546 (*spring only*) *or* Free Elective- Histology or Free Elective
BIO 495- Evolution Theory and Application
† Restricted Elective
Gen Ed. 5B course 2
Free Elective

^G 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, 361/361L, 362/362L, 366, 430, and/or 366; MAT 112, 114 or higher; PHY 131 and/or 201.

♣ Due to variable course hour choices for MAT requirement and concentration requirements, marked free electives may also be variable. Consult with your advisor to ensure you have a minimum of 120 total credit hours for graduation.

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, BIO 112, BIO 315, BIO 319, BIO 320, BIO 331, BIO 332, BIO 348, BIO 495

28 hours

Concentration Requirements

BIO 342 or BIO 546, *CHE 362, *CHE 362L, *CHE 430 or *CHE 431, *MAT 120 (or higher)

23-25 hours

† PLUS 9 (NINE) HOURS selected from the following (restricted elective):

§ BIO 342, BIO 527, BIO 528, BIO 531, BIO 535, BIO 546, § BIO 547, BIO 549, BIO 598, §*CHE 430, §*CHE 431, *CHE 432

Supporting Course Requirements

^GCHE 111, *CHE 111L, CHE 112, CHE 112L, *CHE 361, *CHE 361L, INF 104, PHI 383, ^G*PHY 131 or ^G*PHY 201, ^GSTA 215 or ^G*STA 270

17-18 hours

Free Electives

10-13 hours

Total Curriculum Requirements

120 hours