



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

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

Freshman (1st Semester) 17 hrs

GSD 101 Foundations of Learning	3
BIO 111/111L Cell & Molecular Biology	4
CHE 111 (<i>fulfills Gen. Ed</i>) General Chemistry I	3
CHE 111L General Chemistry I Lab	1
Gen. Ed. Element	3
PSY 200 Intro to Psychology	3

Freshman (2nd Semester) 15 hrs

BIO 112/112L Ecology & Evolution	4
CHE 112 General Chemistry II	3
CHE 112L General Chemistry II Lab	1
Gen. Ed. Element	3
Gen. Ed. Element	3
Free Elective	1

Sophomore (1st Semester) 17 hrs

BIO 208/BIO 208L Anatomy & Physiology I	4
CHE 361 Organic Chemistry I	3
CHE 361L Organic Chemistry I Lab	1
MAT 234 Calculus I	4
PHY 131 College Phys I <i>or</i> PHY 201 Univ. Phys I	5

Sophomore (2nd Semester) 13 hrs

BIO 320 Principles of Microbiology	4
BIO 332 Careers in Biomedical Sciences	1
PHY 132 <i>or</i> PHY 202 College Phys II <i>or</i> Univ. Phys II	5
Gen Ed. Element	3

Junior (1st Semester) 16 hrs

BIO 331 Cell Biology	3
CHE 362 Organic Chemistry II	3
CHE 362L Organic Chemistry II Lab	3
BIO 308/BIO 308L Anatomy & Physiology II	4
STA 215 Intro Statistical Reasoning (<i>fulfills Gen. Ed.</i>)	3

Junior (2nd Semester) 16 hrs

BIO 315 Genetics	4
BIO 348 Vertebrate Physiology	3
PHI 383 Health & Biomedical Ethics	3
Gen. Ed. Element 3A	3
Restricted Elective	3

Senior (1st Semester) 13-16 hrs

BIO 527 Immunology	4
CHE 430 <i>or</i> 431 BioChem of Macromolecules <i>or</i> Metabolic Biochem.	3
BIO/CHE Elective	3
Gen Ed. Element	3
Free Elective	0-3

Senior (2nd Semester) 13 hrs

BIO 495 Evolutionary Application & Theory	1
BIO/CHE Elective	3
Restricted Elective	3
Gen Ed. Element	3
Free Elective	3

^cDenotes 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. 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 REQUIREMENTS33 hours

General Education	30 hours
Foundations in Learning (GSD 101; waived for transfers with 30+ hrs)	3 hours

MAJOR REQUIREMENTS

Core Courses28 hours

BIO 111, BIO 111L BIO 112, BIO 112L, BIO 208, BIO 208L, BIO 308, BIO 308L, BIO 315, BIO 320, BIO 331, BIO 332, BIO 348, BIO 495, BIO 527

Concentration Requirements 22-24 hours

CHE 362, CHE 362L, *CHE 430 or *CHE 431, MAT 234, PHY 132 or PHY 202

‡ PLUS 6 (SIX) HOURS selected from the following (BIO/CHE elective):

BIO 319, BIO 528, BIO 531, BIO 535, BIO 546, BIO 547, BIO 549, BIO 598, §*CHE 430, §*CHE 431, *CHE 432

§ Cannot be used for credit in both concentration requirement and restricted electives categories above

Supporting Course Requirements 23-24 hours

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

† PLUS 6 (SIX) HOURS selected from the following (restricted elective):

ANT 120, ECO 230, HON 312, *PSY 308, SOC 131

Free Electives 11-14 hours

Total Curriculum Requirements 120 hours