



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

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

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

|                                                                                      |         |
|--------------------------------------------------------------------------------------|---------|
| GSD 101- Foundation in Learning                                                      | 3       |
| BIO 111/L- Cell and Molecular Biology/Lab                                            | 4       |
| <sup>G</sup> CHE 111 ( <i>fulfills Gen. Ed. 4</i> )- General Chemistry I             | 3       |
| CHE 111L- General Chemistry I Lab                                                    | 1       |
| MAT 120 <i>or higher</i> (MAT 234 recommended)-<br>Trigonometry <i>or</i> Calculus I | 3-5 (4) |
| Gen. Ed. 1A (ENG 101)                                                                | 3       |

**Sophomore (1<sup>st</sup> Semester) 16 hrs**

|                                                                                                                            |   |
|----------------------------------------------------------------------------------------------------------------------------|---|
| BIO 319- Zoology                                                                                                           | 4 |
| CHE 361- Organic Chemistry I                                                                                               | 3 |
| CHE 361L- Organic Chemistry I Lab                                                                                          | 1 |
| <sup>G</sup> PHY 131 <i>or</i> PHY 201 ( <i>fulfills Gen. Ed. 4</i> )- College Physics I<br><i>or</i> University Physics I | 5 |
| Gen. Ed. 1C (CMS 100 <i>or</i> 210)                                                                                        | 3 |

**Junior (1<sup>st</sup> Semester) 12-13 hrs**

|                                                                                                                                                                         |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| BIO 331- Cell Biology                                                                                                                                                   | 3   |
| CHE 430- Biochemistry of Macromolecules                                                                                                                                 | 3   |
| <sup>G</sup> STA 215 <i>or</i> STA 270 ( <i>fulfills Gen. Ed. 2</i> ) (STA 270<br><i>recommended</i> )- Intro. to Statistical Reasoning <i>or</i> Applied<br>Statistics | 3-4 |
| PHI 383- Health & Biomedical Ethics                                                                                                                                     | 3   |

**Senior (1<sup>st</sup> Semester) 12-16 hrs**

|                                                                                       |     |
|---------------------------------------------------------------------------------------|-----|
| PSY 280 <i>or</i> 308- Lifespan Developmental Psych. <i>or</i> Abnormal<br>Psychology | 3   |
| †Restricted Elective                                                                  | 3-4 |
| Gen. Ed. 3A (Arts)                                                                    | 3   |
| Gen. Ed. 3B course 2                                                                  | 3   |
| Free Elective                                                                         | 0-3 |

**Freshman (2<sup>nd</sup> Semester) 17 hrs**

|                                                                                                                                                                     |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| BIO 112/L- Ecology and Evolution/Lab                                                                                                                                | 4 |
| CHE 112- General Chemistry II                                                                                                                                       | 3 |
| CHE 112L- General Chemistry II Lab                                                                                                                                  | 1 |
| PSY 200- Introduction to Psychology                                                                                                                                 | 3 |
| <sup>G</sup> SOC 131 <i>or</i> HON 312 ( <i>fulfills Gen. Ed. 5B</i> )- Introductory<br>Sociology <i>or</i> Honors Seminar in the Social and Behavioral<br>Sciences | 3 |
| Gen. Ed. 1B (ENG 102)                                                                                                                                               |   |

**Sophomore (2<sup>nd</sup> Semester) 15 hrs**

|                                                                               |   |
|-------------------------------------------------------------------------------|---|
| BIO 332- Careers in Biomedical Sciences                                       | 1 |
| BIO 320- Principles of Microbiology                                           | 4 |
| CHE 362- Organic Chemistry II                                                 | 3 |
| CHE 362L- Organic Chemistry II Lab                                            | 1 |
| PHY 132 <i>or</i> PHY 202- College Physics II <i>or</i> University Physics II | 5 |
| Free Elective                                                                 | 1 |

**Junior (2<sup>nd</sup> Semester) 16 hrs**

|                                                |   |
|------------------------------------------------|---|
| BIO 315- Genetics                              | 4 |
| BIO 348- Vertebrate Physiology                 | 3 |
| CHE 431- Metabolic Biochemistry                | 3 |
| INF 104- Computer Literacy with Software Apps. | 3 |
| Gen Ed. 3B ( <i>Humanities</i> ) course 1      | 3 |

**Senior (2<sup>nd</sup> Semester) 13-16 hrs**

|                                           |     |
|-------------------------------------------|-----|
| BIO 495- Evolution Theory and Application | 1   |
| †Restricted Elective                      | 3-4 |
| Gen. Ed. 5A ( <i>History</i> )            | 3   |
| Gen Ed. 5B course 2                       | 3   |
| Free Elective                             | 3   |
| Free Elective                             | 0-2 |

<sup>G</sup> 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)

**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**

\*CHE 362, \*CHE 362L, \*CHE 430, \*CHE 431, \*MAT 120 (or higher), \* PHY 132 or \* PHY 202

**24-28 hours**

† PLUS 6 (SIX) 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 432

**Supporting Course Requirements**

CHE 111, \*CHE 111L, CHE 112, CHE 112L, \*CHE 361, CHE 361L, INF 104, PHI 383, <sup>G</sup>\* PHY 131 or <sup>G</sup>\* PHY 201, <sup>G</sup>STA 215 or  
STA 270, PSY 200, PSY 280 or PSY 308, <sup>G</sup>SOC 131 or <sup>G</sup>\*HON 312

**23-24 hours**

**Free Electives**

**1-6 hours**

**Total Curriculum Requirements**

**120 hours**