

Bachelor of Science Study Plan - Entering Fall 2024 and later

Name: _____ ID: _____ E-mail: _____ Class: _____

Major: **Biology**

Instructions Please print or type. The purpose of this study plan is to track your progress to degree completion by outlining the specific courses required for the program and when you expect to take them. Please indicate the term (semester) when you plan to take or have taken each course (e.g., 24F, 25S, 25F, etc.). If a choice of course is given for the requirement, circle the appropriate course number. For electives, fill in the course number. Courses completed via AP/IB or transfer credit should be marked as AP, IB, or TR respectively. Revise this plan as needed. An additional study plan will be required if you wish to pursue a minor or a second degree.

| Term | Course | Credits | Grade | Term | Course | Credits | Grade |
|----------------|---|---------|-------|-----------------|--|---------|-------|
| TERM I | | | | TERM III | | | |
| I | BIO 181 - Biology and Biotechnology | 3.0 | _____ | III | BIO 301 - Professional Ethics for Scientific Research | 1.0 | _____ |
| I | BIO 182 - Biology and Biotechnology Laboratory | 1.0 | _____ | III | BIO 382 - Biological Systems | 4.0 | _____ |
| I | CH 115 - General Chemistry I | 3.0 | _____ | III | CH 243 - Organic Chemistry I | 3.0 | _____ |
| I | CH 117 - General Chemistry Laboratory I | 1.0 | _____ | III | CH 245 - Organic Chemistry Lab I | 1.0 | _____ |
| I | CH 179 - Career Pathways in Chemical and Biology Sciences | 1.0 | _____ | III | ENGR 241 - Probability & Statistics with Data Science Apps | 4.0 | _____ |
| I | HASS 103 - Writing and Communications Colloquium | 3.0 | _____ | III | PEP 111 - Mechanics | 3.0 | _____ |
| I | MA 121 - Differential Calculus | 2.0 | _____ | III | PRV 20X - Frontiers of Technology ⁴ | 1.0 | _____ |
| I | MA 122 - Integral Calculus | 2.0 | _____ | | | | |
| I | PRV 101 - First Year Experience | 1.0 | _____ | | | | |
| TERM II | | | | TERM IV | | | |
| II | BIO 291 - Cell and Molecular Biology | 4.0 | _____ | IV | CH 244 - Organic Chemistry II | 3.0 | _____ |
| II | CH 116 - General Chemistry II | 3.0 | _____ | IV | CH 246 - Organic Chemistry Laboratory II | 1.0 | _____ |
| II | CH 118 - General Chemistry Laboratory II | 1.0 | _____ | IV | CS 105 - Introduction to Scientific Computing OR | 3.0 | _____ |
| II | CH 189 - Seminar in Chemistry and Biology | 1.0 | _____ | | CS 115 - Introduction to Computer Science | 4.0 | _____ |
| II | HASS 105 - Knowledge, Nature, Culture | 3.0 | _____ | IV | PEP 112 - Electricity and Magnetism | 3.0 | _____ |
| II | MA 125 - Vectors and Matrices | 2.0 | _____ | IV | PEP 221 - Physics Lab I for Scientists | 1.0 | _____ |
| II | MA 126 - Multivariable Calculus I | 2.0 | _____ | IV | PRV 20X - Frontiers of Technology | 1.0 | _____ |
| | | | | IV | Humanities ³ : _____ | 3.0 | _____ |

Student Signature: _____ Date: _____ Original _____ Revision _____

Academic Advisor Signature: _____ Date: _____ 2nd Degree _____

Name: _____ ID: _____ E-mail: _____ Class: _____

Major: **Biology**

| Term | Course | Credits | Grade | Term | Course | Credits | Grade |
|----------------|--|---------|-------|------------------|---|---------|-------|
| TERM V | | | | TERM VII | | | |
| V | BIO 307 - Fundamentals of Biostatistics and Bioinformatics | 3.0 | _____ | VII | BIO 498 - Senior Capstone Research Project I | 3.0 | _____ |
| V | BIO 484 - Genetics | 4.0 | _____ | VII | BIO 568 - Computational Biology OR BIO 583 - Physiology | 3.0 | _____ |
| V | CH 580 - Biochemistry I - Cellular Metabolism and Regulation | 3.0 | _____ | VII | IDE 401 - Senior Innovation II: Value Proposition | 1.0 | _____ |
| V | MGT 103 - Introduction to Entrepreneurial Thinking | 2.0 | _____ | VII | General Elective ² : _____ | 3.0 | _____ |
| V | PEP 222 - Physics Lab II for Scientists | 1.0 | _____ | VII | Technical Elective: _____ | 3.0 | _____ |
| V | Humanities: _____ | 3.0 | _____ | VII | Humanities: _____ | 3.0 | _____ |
| TERM VI | | | | TERM VIII | | | |
| VI | BIO 392 - Microbiology | 4.0 | _____ | VIII | BIO 499 - Senior Capstone Research Project II | 3.0 | _____ |
| VI | BIO 398 - Research Proposals for Undergraduate Research | 1.0 | _____ | VIII | BIO 586 - Immunology | 3.0 | _____ |
| VI | BIO 509 - Clinical Research Methodology and Design | 3.0 | _____ | VIII | IDE 402 - Senior Innovation III: Venture Planning and Pitch | 1.0 | _____ |
| VI | PRV 20X - Frontiers of Technology | 1.0 | _____ | VIII | General Elective: _____ | 3.0 | _____ |
| VI | Technical Elective ¹ : _____ | 3.0 | _____ | VIII | General Elective: _____ | 3.0 | _____ |
| VI | Technical Elective: _____ | 3.0 | _____ | VIII | Humanities: _____ | 3.0 | _____ |

ADDITIONAL COURSES

Notes:

- Technical Elective: Can be selected from available CH and BIO 300, 400, and 500-level courses that are not already included in your degree program requirements. Suggested technical electives for the Biology program include the following:
 - BIO 397, BIO 485, BIO 487, BIO 507, BIO 526, BIO 584, BME 505, CH 581, CS 544.
 - Whichever of BIO 568 and BIO 583 you choose as a core course, the other may be chosen as a Technical Elective.
 If you are interested in taking a course related to biology in another department not on this list, please contact your academic advisor.
- General Electives can be selected from available courses offered by programs in SES, SOB and HASS (including CH courses). Approval from the student's advisor and the course instructor may be required.
 - Recommended general elective if planning to pursue an engineering master's: MA 221 Differential Equations.
 - Recommended general elective courses connected to the major include: EN 250 Quantitative Biology and PEP 242 Modern Physics.
- Humanities: Please see [Humanities Requirements](#) for specific requirements.
- [SUCCESS Core Curriculum](#): Students must complete requirements including PRV 101, and three (3) courses from PRV 201, PRV 202, PRV 203, PRV 204, PRV 205.

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| _____ | _____ | _____ | _____ |

Student Signature: _____ Date: _____ Original _____ Revision _____

Academic Advisor Signature: _____ Date: _____ 2nd Degree _____