



Bachelor of Science in Biotechnology

Catalog Year 2023-2024

I. University Requirements

- UCF General Education Program
- 120 Total Credit Hours
- 42 Upper-Level Credit Hours

**Refer to your degree audit to ensure all University requirements are Satisfied*

II. Pending Requirements

To transition out of "Pending" status, students must earn a "C" or better in these courses or their equivalents:

- | | | |
|------------------------------------|--|-------|
| <input type="checkbox"/> BSC 2010C | Biology I | 4 hrs |
| <input type="checkbox"/> CHM 2045C | Chemistry Fundamentals I* | 4 hrs |
| | *Prerequisites: Passing Score on Chemistry Placement Exam or CHM 1025 | |
| <input type="checkbox"/> CHM 2046 | Chemistry Fundamentals II | 3 hrs |
| <input type="checkbox"/> CHM 2210 | Organic Chemistry I | 3 hrs |

III. Major Requirements

A. Core Curriculum

Life Sciences

- | | | |
|---|--|-------------|
| <input type="checkbox"/> BSC 2011C | Biology II | 4 hrs |
| <input type="checkbox"/> PCB 3233 -OR- PCB 4280 | Immunology <u>or</u> Molecular Immunology | 3 hrs |
| <input type="checkbox"/> PCB 3233L | Immunology Lab | 1 hr |
| <input type="checkbox"/> MCB 3020C | General Microbiology | 5 hrs |
| <input type="checkbox"/> PCB 3522 | Molecular Biology I | 3 hrs |
| <input type="checkbox"/> PCB 4524 | Molecular Biology II | 3 hrs |
| <input type="checkbox"/> MCB 4720 | Industrial Perspectives Seminar | 3 hrs |
| <input type="checkbox"/> MCB 4312 | Molecular Biotechnology | 3 hrs |
| <input type="checkbox"/> BSC 3403C -OR- MCB 4721C | Quant Biological Methods <u>or</u> Methods in Biotechnology | 4 hrs |
| <input type="checkbox"/> PCB 4135 -OR- PCB 4529C | Applied Mol. Cell Biology <u>or</u> Experimental Mol. Cell Biology | 3 hrs/4 hrs |

Chemistry

- | | | |
|---|---|-------------|
| <input type="checkbox"/> CHM 2046L | Chemistry Fundamentals Lab | 1 hr |
| <input type="checkbox"/> CHM 2211 | Organic Chemistry II | 3 hrs |
| <input type="checkbox"/> CHM 2211L | Organic Laboratory Techniques I | 2 hrs |
| <input type="checkbox"/> BCH 4053 -OR- BCH 4024 | Biochemistry I <u>or</u> Medical Biochemistry | 3 hrs/4 hrs |

Math

- | | | |
|------------------------------------|---|-------|
| <input type="checkbox"/> MAC 2311C | Calculus with Analytic Geometry I* | 4 hrs |
| | *Prerequisites: MAT 1033C, MAC 1105C, MAC 1114C, MAC 1140C | |
| <input type="checkbox"/> STA 2023 | Statistical Methods I | 3 hrs |

Physics

Select One Sequence:

- | | | |
|--|-----------------------------------|-------|
| <input type="checkbox"/> PHY 2053C (<u>or</u> PHY 2053+2053L) | College Physics I | 4 hrs |
| <input type="checkbox"/> PHY 2054C (<u>or</u> PHY 2054+2054L) | College Physics II | 4 hrs |
| -OR- | | |
| <input type="checkbox"/> PHY 2048C (<u>or</u> PHY 2048+2048L) | General Physics Using Calculus I | 4 hrs |
| <input type="checkbox"/> PHY 2049C (<u>or</u> PHY 2049+2049L) | General Physics Using Calculus II | 4 hrs |

B. Restricted Electives

- Must participate in at least 3 credit hours of research (ex. MCB 4912, MCB 4941).
 - o **Note: Participating in AIM, GEAR, HIM (with approval), PILOT, or PURE will count for research credit.**
- Must take 1 restricted elective course from the list below.

BCH 4054 Biochemistry II	MCB 4204 Cell Micro: Host-Pathogen	PCB 4234 Cancer Biology
BCH 4103L Biochemical Methods	MCB 4207 Infectious Processes	PCB 4264 Stem Cell Biology
BSC 3424 Nanobiotechnology	MCB 4224 Molec Biology of Diseases	PCB 4284 Immunobiology
BSC 4434 Sequence Analysis	MCB 4404 Bacterial Genetics & Physio	PCB 4521 Tissue Engineering
BSC 4439 Structure Analysis	MCB 4414 Physio & Biochem Microbes	PCB 4663 Human Genetics
CHM 3120/L Analytical Chemistry/Lab	MCB 4503 Virology	PCB 4805 Endocrinology
CHM 3410 Physical Chemistry I	MCB 4603 Environmental Microbiology	PCB 4813 Molec Aspects of Obesity
MCB 3202 Infectious Disease	PCB 3063 Genetics	PCB 4832 Brain Functions
MCB 3203/L Pathogenic Micro/Lab	PCB 3703C Human Physiology	PCB 4833 Advanced Human Physiology
MCB 4201 Microbial Stress Response	PCB 4174 Foundation of Bio-Imaging	PCB 4843 Cell and Molec Neuroscience