



Bachelor of Science in Biotechnology

Catalog Year 2021-2022

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).
 - 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 | PCB 4521 Tissue Engineering |
| BSC 4439 Structure Analysis | MCB 4414 Microbial Metabolism | 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 |