



Bachelor of Science in Molecular Microbiology

Catalog Year 2025-2026

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, unless otherwise stated:

- | | | |
|------------------------------------|--|-------|
| <input type="checkbox"/> BSC 2010C | Biology I | 4 hrs |
| <input type="checkbox"/> CHM 2045C | Chemistry Fundamentals I* | 4 hrs |
| | <i>*Prerequisites: Appropriate Chemistry Placement Exam score or CHM 1025 & MAC 1105</i> | |
| <input type="checkbox"/> CHM 2046 | Chemistry Fundamentals II | 3 hrs |
| <input type="checkbox"/> CHM 2210 | Organic Chemistry I | 3 hrs |
| <input type="checkbox"/> MCB 3020C | General Microbiology ("B" or better) | 5 hrs |

III. Major Requirements

- ☐ Students must maintain a 3.0 Science GPA to graduate with this degree.

A. Core Curriculum

Life Sciences

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|------------------------------------|---|-------|
| <input type="checkbox"/> MCB1000 | The Invisible World | 3 hrs |
| <input type="checkbox"/> BSC 2011C | Biology II | 4 hrs |
| <input type="checkbox"/> PCB 4280 | Molecular Immunology | 3 hrs |
| <input type="checkbox"/> PCB 3233L | Immunology Lab | 1 hr |
| <input type="checkbox"/> BSC 3403C | Quantitative Biological Methods | 4 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 4404 | Bacterial Genetics and Physiology | 3 hrs |
| <input type="checkbox"/> MCB 4414 | Physiology and Biochemistry of Microbes | 3 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 |
| | <i>*Prerequisites: MAT 1033C, MAC 1105C, MAC 1114C, MAC 1140C</i> | |
| <input type="checkbox"/> STA 2023 | Statistical Methods I | 3 hrs |

Physics

Select One Sequence:

- | | |
|---|-------|
| <input type="checkbox"/> PHY 2053C & 2054C (<u>or</u> PHY 2053+2053L) College Physics I & II | 8 hrs |
| -OR- | |
| <input type="checkbox"/> PHY 2048C & 2049C (<u>or</u> PHY 2048+2048L) General Physics Using Calculus I | 8 hrs |

B. Restricted Electives

Must take at least **3 restricted elective courses** (at least 1 must have a lab component and only 1 can be chosen from the full list of Biomedical Sciences Restricted Electives).

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|--|---|
| <input type="checkbox"/> BOT 4434C General Mycology | <input type="checkbox"/> MCB 4276 Epidem. of Infectious Diseases |
| <input type="checkbox"/> MCB 3202 Principles of Infectious Disease | <input type="checkbox"/> MCB 4503 Virology |
| <input type="checkbox"/> MCB 3203+L Pathogenic Microbiology + Lab | <input type="checkbox"/> MCB 4603 Environmental Microbiology |
| <input type="checkbox"/> MCB 4201 Microbial Stress Response | <input type="checkbox"/> MCB 4721C Methods in Biotechnology |
| <input type="checkbox"/> MCB 4204 Cell Micro: Host-Path Interactions | <input type="checkbox"/> PCB 4028 Molecular and Cellular Pharmacology |
| <input type="checkbox"/> MCB 4207 Infectious Processes | <input type="checkbox"/> PCB 4284 Immunobiology |

Note: Participating in AIM, GEAR, HIM (with approval), PILOT, or PURE will substitute for one lab restricted elective.