



**Bachelor of Science in Biomedical Sciences  
Molecular Microbiology Track**

Catalog Year 2019-2020

**I. University Requirements**

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

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

**II. Major Requirements**

- Students must maintain a 3.2 Science GPA to graduate with this degree.

**A. Core Curriculum**

**Life Sciences**

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|---|---|-------|
| <input type="checkbox"/> BSC 2010C              | Biology I   | 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"/> 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 4201               | Microbial Stress Response                         | 3 hrs |
| <input type="checkbox"/> MCB 4204               | Cellular Microbiology: Host-Pathogen Interactions | 3 hrs |
| <input type="checkbox"/> MCB 4404               | Bacterial Genetics and Physiology                 | 3 hrs |
| <input type="checkbox"/> MCB 4414               | Microbial Metabolism                              | 3 hrs |

**Chemistry**

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|---|--|-------------|
| <input type="checkbox"/> CHM 2045C*             | Chemistry Fundamentals I   | 4 hrs       |
|   | <i>*Prerequisites: Passing Score on Chemistry Placement Exam or CHM 1025</i> |             |
| <input type="checkbox"/> CHM 2046               | Chemistry Fundamentals II  | 3 hrs       |
| <input type="checkbox"/> CHM 2046L              | Chemistry Fundamentals Lab   | 1 hr        |
| <input type="checkbox"/> CHM 2210               | Organic Chemistry I  | 3 hrs       |
| <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 ( <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 |
| <b>-OR-</b>  |                                   |       |
| <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 take at least **3 restricted elective courses** (at least 2 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 4503 Virology                            |
| <input type="checkbox"/> MCB 3202 Principles of Infectious Disease | <input type="checkbox"/> MCB 4603 Environmental Microbiology          |
| <input type="checkbox"/> MCB 3203/L Pathogenic Microbiology + Lab  | <input type="checkbox"/> MCB 4721C Methods in Biotechnology           |
| <input type="checkbox"/> MCB 4207 Infectious Processes             | <input type="checkbox"/> PCB 4028 Molecular and Cellular Pharmacology |
| <input type="checkbox"/> MCB 4276 Epidem of Infectious Diseases    | <input type="checkbox"/> PCB 4284 Immunobiology                       |

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