Bachelor of Science in Molecular Microbiology
Catalog Year 2022-2023

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:

- BSC 2010C    Biology I       4 hrs
- CHM 2045C   Chemistry Fundamentals I*    4 hrs  
  *Prerequisites: Passing Score on Chemistry Placement Exam or CHM 1025
- CHM 2046    Chemistry Fundamentals II     3 hrs
- CHM 2210    Organic Chemistry I           3 hrs
- MCB 3020C   General Microbiology (“B” or better)  5 hrs

III. Major Requirements

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

A. Core Curriculum

Life Sciences
- BSC 2011C   Biology II      4 hrs
- PCB 4280   Molecular Immunology     3 hrs
- PCB 3233L   Immunology Lab     1 hr
- BSC 3403C   Quantitative Biological Methods    4 hrs
- PCB 3522   Molecular Biology I     3 hrs
- PCB 4524   Molecular Biology II     3 hrs
- MCB 4404   Bacterial Genetics and Physiology     3 hrs
- MCB 4414   Physiology and Biochemistry of Microbes  3 hrs

Chemistry
- CHM 2046L   Chemistry Fundamentals Lab    1 hr
- CHM 2211    Organic Chemistry II     3 hrs
- CHM 2211L   Organic Laboratory Techniques I     2 hrs
- BCH 4053 -OR- BCH 4024 Biochemistry I or Medical Biochemistry  3 hrs/4 hrs

Math
- MAC 2311C   Calculus with Analytic Geometry I*  4 hrs  
  *Prerequisites: MAT 1033C, MAC 1105C, MAC 1114C, MAC 1140C
- STA 2023               Statistical Methods I     3 hrs

Physics

Select One Sequence:
- PHY 2053C (or PHY 2053+2053L) College Physics I  4 hrs
- PHY 2054C (or PHY 2054+2054L) College Physics II  4 hrs
- OR-
- PHY 2048C (or PHY 2048+2048L) General Physics Using Calculus I  4 hrs
- PHY 2049C (or PHY 2049+2049L) General Physics Using Calculus II   4 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).

- BOT 4434C General Mycology
- MCB 3202 Principles of Infectious Disease
- MCB 3203+L Pathogenic Microbiology + Lab
- MCB 4201 Microbial Stress Response
- MCB 4204 Cell Micro: Host-Path Interactions
- MCB 4207 Infectious Processes

- MCB 4276 Epidem of Infectious Diseases
- MCB 4503 Virology
- MCB 4603 Environmental Microbiology
- MCB 4721C Methods in Biotechnology
- PCB 4028 Molecular and Cellular Pharmacology
- PCB 4284 Immunobiology

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