Bachelor of Science in Molecular Microbiology  
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 the 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 Science 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 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.