Bachelor of Science in Molecular and Cellular Biology
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 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
☐ BSC 3403C   Quantitative Biological Methods (“B” or better) 4 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
☐ PCB 3063 -OR- PCB 4663 Genetics or Human Genetics 3 hrs
☐ PCB 3522    Molecular Biology I 3 hrs
☐ PCB 4524    Molecular Biology II 3 hrs
☐ PCB 3023    Molecular Cell Biology 3 hrs
☐ PCB 4529C   Experimental Molecular Cell Biology 4 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).
☐ BSC 4434 Bio Informatics: Seq Analysis
☐ PCB 4521 Tissue Engineering
☐ MCB 4224 Molecular Biology of Diseases
☐ PCB 4805 Endocrinology
☐ MCB 4721C Methods in Biotechnology
☐ PCB 4813 Molecular Aspects of Obesity
☐ PCB 3703C Human Physiology
☐ PCB 4832 Cell and Molec Basis of Brain Func
☐ PCB 4028 Molecul and Cell Pharmacology
☐ PCB 4833 Advanced Human Physiology
☐ PCB 4174 Foundation of Bio-Imaging Science
☐ PCB 4843 Cell and Molecular Neuroscience
☐ PCB 4234 Cancer Biology
☐ ZOO 3744 Neurobiology
☐ PCB 4264 Stem Cell Biology
☐ ZOO 4742 Advanced Neurobiology
☐ PCB 4284 Immunobiology
☐ ZOO 4753C Vertebrate Histology

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