UCF College of Medicine

Bachelor of Science in Biomedical Sciences

Molecular and Cellular Biology 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

❑ BSC 2010C	Biology I	4 hrs
❑ PCB 3233 **-OR-** PCB 4280	Immunology **or** Molecular Immunology	3 hrs
❑ PCB 3233L	Immunology Lab	1 hr
❑ MCB 3020C	General Microbiology	5 hrs
❑ BSC 3403C	Quantitative Biological Methods	4 hrs
❑ PCB 3522	Molecular Biology I	3 hrs
❑ PCB 4524	Molecular Biology II	3 hrs
❑ PCB 4028	Molecular and Cellular Pharmacology	3 hrs
❑ PCB 4234	Cancer Biology	3 hrs
❑ PCB 4529C	Experimental Molecular Cell Biology	4 hrs

Chemistry

❑ 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 2046L	Chemistry Fundamentals Lab	1 hr
❑ CHM 2210	Organic Chemistry I	3 hrs
❑ 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
- ❑ MCB 4224 Molecular Biology of Diseases
- ❑ MCB 4721C Methods in Biotechnology
- ❑ PCB 3703C Human Physiology
- ❑ PCB 4174 Foundation Bio-Imaging Science
- ❑ PCB 4264 Stem Cell Biology
- ❑ PCB 4284 Immunobiology
- ❑ PCB 4521 Tissue Engineering
- ❑ PCB 4663 Human Genetics
- ❑ PCB 4813 Molecular Aspects of Obesity
- ❑ PCB 5275 Signal Transduction Mechanics
- ❑ ZOO 3744 Neurobiology

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