UCF | College of Medicine

Bachelor of Science in Biomedical Sciences

Catalog Year 2024-2025

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:

❑ BSC 2010C	Biology I	4 hrs
❑ CHM 2045C	Chemistry Fundamentals I*	4 hrs
	**Prerequisites: Appropriate Chemistry Placement Exam score or CHM 1025 & MAC 1105*	
❑ CHM 2046	Chemistry Fundamentals II	3 hrs
❑ CHM 2210	Organic Chemistry I	3 hrs

• SLS 2311C	Overview of Select Medical Careers**	2 hrs
	*****Not required, but recommended, for pre-professional students***	

III. Major Requirements

A. Core Curriculum

Life Sciences

❑ BSC 2011C	Biology II	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

Chemistry

❑ CHM 2046L	Chemistry Fundamentals Lab	1 hr
❑ CHM 2211	Organic Chemistry II	3 hrs
❑ CHM 2211L	Organic Laboratory Techniques I	2 hrs
❑ BCH 4024 **-OR-** BCH 4053	Medical Biochemistry **or** Biochemistry I	4 hrs/3 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 **5 restricted elective courses (2 with labs)** and no more than 2 courses can be MLS courses or outside of the College of Medicine. Choose from the list on the back of this form.

	Course	Credit Hours
Restricted Elective #1		
Restricted Elective #2		
Restricted Elective #3		
Restricted Elective #4 (with lab)		
Restricted Elective #5 (with lab)		

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

UCF College of Medicine

Biomedical Sciences Restricted Electives

***** = *recommended for pre-professional students***
^ = *outside of the College of Medicine*

BCH 4054 Biochemistry II*^
BSC 3424 Nanobiotechnology
BSC 4434 Biomed Informatics: Sequence Analysis
BSC 4439 Biomed Informatics: Structure Analysis
MCB 3202 Principles of Infectious Disease*
MCB 3903 Explorations in Biomed Sci Research
MCB 3933 Biomedical Sciences Careers
MCB 4201 Microbial Stress Response
MCB 4204 Cell Micro: Host-Pathogen Interactions
MCB 4207 Infectious Processes*
MCB 4224 Molecular Biology of Diseases*
MCB 4276 Epidemiology of Infectious Diseases*
MCB 4312 Molecular Biotechnology*
MCB 4404 Bacterial Genetics and Physiology
MCB 4414 Physiology & Biochemistry of Microbes*
MCB 4503 Virology*
MCB 4603 Environmental Microbiology
MLS 3305 Hematology*
MLS 4334 Hemostasis*
MLS 4505 Immunodiagnostics*
MLS 4625 Advanced Clinical Chemistry I
MLS 4630 Advanced Clinical Chemistry II
PCB 4028 Molecular and Cellular Pharmacology*
PCB 4135 Applied Molecular Cell Biology
PCB 4174 Foundation of Bio-Imaging Science
PCB 4234 Cancer Biology*
PCB 4264 Stem Cell Biology
PCB 4284 Immunobiology
PCB 4280 Molecular Immunology
PCB 4402 Disease Ecology & Ecoimmunology^
PCB 4514 Epigenetics*^
PCB 4521 Tissue Engineering
PCB 4663 Human Genetics
PCB 4723 Animal Physiology*^(pre-vet)
PCB 4805 Endocrinology*
PCB 4808 Physiology of Reproduction
PCB 4813 Molecular Aspects of Obesity
PCB 4832 Cell and Molec Basis of Brain Functions
PCB 4833 Advanced Human Physiology
PCB 4843 Cellular and Molecular Neuroscience
ZOO 3744 Neurobiology*
ZOO 4513 Animal Behavior*^(pre-vet)
ZOO 4605 Human Clinical Embryology*
ZOO 4742 Advanced Neurobiology*

Electives with Labs

BCH 4103L Biochemical Methods^
BOT 4434C General Mycology
MCB 3203/L Pathogenic Microbiology + Lab*
MCB 4114C Microbial Genomics
MCB 4721C Methods in Biotechnology
PCB 3063/L Genetics*^ + Lab
PCB 3703C Human Physiology*
PCB 4529C Experimental Molecular Cell Biology
PCB 4683/L Evolutionary Biology + Lab^
PCB 4708L Lab Virtual Simulations in Physiology
ZOO 3713C Comparative Vertebrate Anat*^(pre-vet)
ZOO 3733C Human Anatomy*
ZOO 3755C Introductory Histology*
ZOO 4603C Embryology/Development*^
ZOO 4701 Dissection Techniques*
ZOO 4743C Clinical Neuroanatomy & Neuroscience*
ZOO 4747C Clinical Neuroscience*
ZOO 4753C Vertebrate Histology*

Updated April 2024