



Bachelor of Science in Biomedical Sciences

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:

<input type="checkbox"/> BSC 2010C	Biology I	4 hrs
<input type="checkbox"/> CHM 2045C	Chemistry Fundamentals I*	4 hrs
	<i>*Prerequisites: Passing Score on Chemistry Placement Exam or CHM 1025</i>	
<input type="checkbox"/> CHM 2046	Chemistry Fundamentals II	3 hrs
<input type="checkbox"/> CHM 2210	Organic Chemistry I	3 hrs
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• SLS 2311C	Overview of Select Medical Careers**	2 hrs
	<i>**Not required, but recommended, for pre-professional students</i>	

III. Major Requirements

A. Core Curriculum

Life Sciences

<input type="checkbox"/> BSC 2011C	Biology II	4 hrs
<input type="checkbox"/> PCB 3233 -OR- PCB 4280	Immunology <u>or</u> Molecular Immunology	3 hrs
<input type="checkbox"/> PCB 3233L	Immunology Lab	1 hr
<input type="checkbox"/> MCB 3020C	General Microbiology	5 hrs
<input type="checkbox"/> BSC 3403C	Quantitative Biological Methods	4 hrs
<input type="checkbox"/> PCB 3522	Molecular Biology I	3 hrs
<input type="checkbox"/> PCB 4524	Molecular Biology II	3 hrs

Chemistry

<input type="checkbox"/> CHM 2046L	Chemistry Fundamentals Lab	1 hr
<input type="checkbox"/> CHM 2211	Organic Chemistry II	3 hrs
<input type="checkbox"/> CHM 2211L	Organic Laboratory Techniques I	2 hrs
<input type="checkbox"/> BCH 4053 -OR- BCH 4024	Biochemistry I <u>or</u> Medical Biochemistry	3 hrs/4 hrs

Math

<input type="checkbox"/> MAC 2311C	Calculus with Analytic Geometry I*	4 hrs
	<i>*Prerequisites: MAT 1033C, MAC 1105C, MAC 1114C, MAC 1140C</i>	
<input type="checkbox"/> STA 2023	Statistical Methods I	3 hrs

Physics

Select One Sequence:

<input type="checkbox"/> PHY 2053C (<u>or</u> PHY 2053+2053L)	College Physics I	4 hrs
<input type="checkbox"/> PHY 2054C (<u>or</u> PHY 2054+2054L)	College Physics II	4 hrs
-OR-		
<input type="checkbox"/> PHY 2048C (<u>or</u> PHY 2048+2048L)	General Physics Using Calculus I	4 hrs
<input type="checkbox"/> PHY 2049C (<u>or</u> 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.



Biomedical Sciences Restricted Electives

** = recommended for pre-professional students*

^ = outside of the College of Medicine

BCH 4054 Biochemistry II*^	MLS 4630 Advanced Clinical Chemistry II
BOT 4850 Medicinal Botany^	PCB 4028 Molecular and Cellular Pharmacology*
BSC 3424 Nanobiotechnology	PCB 4135 Applied Molecular Cell Biology
BSC 4434 Biomed Informatics: Sequence Analysis	PCB 4174 Foundation of Bio-Imaging Science
BSC 4439 Biomed Informatics: Structure Analysis	PCB 4234 Cancer Biology*
MCB 3202 Principles of Infectious Disease*	PCB 4264 Stem Cell Biology
MCB 3903 Explorations in Biomed Sci Research	PCB 4284 Immunobiology
MCB 3933 Biomedical Sciences Careers	PCB 4402 Disease Ecology & Ecoimmunology^
MCB 4201 Microbial Stress Response	PCB 4514 Genetics II*^
MCB 4204 Cell Micro: Host-Pathogen Interactions	PCB 4521 Tissue Engineering
MCB 4207 Infectious Processes*	PCB 4663 Human Genetics
MCB 4224 Molecular Biology of Diseases*	PCB 4723 Animal Physiology*^ ^(pre-vet)
MCB 4276 Epidemiology of Infectious Diseases*	PCB 4805 Endocrinology*
MCB 4312 Molecular Biotechnology*	PCB 4808 Physiology of Reproduction
MCB 4404 Bacterial Genetics and Physiology	PCB 4813 Molecular Aspects of Obesity
MCB 4414 Physiology & Biochemistry of Microbes*	PCB 4832 Cell and Molec Basis of Brain Functions
MCB 4503 Virology*	PCB 4833 Advanced Human Physiology
MCB 4603 Environmental Microbiology	PCB 4843 Cellular and Molecular Neuroscience
MLS 3305 Hematology*	ZOO 3744 Neurobiology*
MLS 4334 Hemostasis*	ZOO 4513 Animal Behavior*^ ^(pre-vet)
MLS 4505 Immunodiagnostics*	ZOO 4605 Human Clinical Embryology*
MLS 4625 Advanced Clinical Chemistry I	ZOO 4742 Advanced Neurobiology*

Electives with Labs

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