



Bachelor of Science in Biomedical Sciences

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

- SLS 2311C Overview of Select Medical Careers* 2 hrs
**Recommended for pre-professional students*

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

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 **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 Microbial Metabolism*	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 Immunodiagnosics*	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*