Bachelor of Science in Biotechnology
Catalog Year 2021-2022

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: Passing Score on Chemistry Placement Exam or CHM 1025
- CHM 2046  Chemistry Fundamentals II     3 hrs
- CHM 2210  Organic Chemistry I         3 hrs

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
- PCB 3522  Molecular Biology I  3 hrs
- PCB 4524  Molecular Biology II  3 hrs
- MCB 4720  Industrial Perspectives Seminar  3 hrs
- MCB 4312  Molecular Biotechnology  3 hrs
- BSC 3403C  or MCB 4721C  Quant Biological Methods or Methods in Biotechnology  4 hrs
- PCB 4135  or PCB 4529C  Applied Mol. Cell Biology or Experimental Mol. Cell Biology  3 hrs/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

- 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 participate in at least 3 credit hours of research (ex. MCB 4912, MCB 4941).
  - Note: Participating in AIM, GEAR, HIM (with approval), PILOT, or PURE will count for research credit.

- Must take 1 restricted elective course from the list below.

  BCH 4054  Biochemistry II  MCB 4204  Cell Micro: Host-Pathogen  PCB 4234  Cancer Biology
  BCH 4103L Biochemical Methods  MCB 4207  Infectious Processes  PCB 4264  Stem Cell Biology
  BSC 4324 Nanobiotechnology  MCB 4224  Molec Biology of Diseases  PCB 4284  Immunobiology
  BSC 4434 Sequence Analysis  MCB 4404  Bacterial Genetics  PCB 4521  Tissue Engineering
  BSC 4439 Structure Analysis  MCB 4414  Microbial Metabolism  PCB 4663  Human Genetics
  CHM 3120/L Analytical Chemistry/Lab  MCB 4503  Virology  PCB 4805  Endocrinology
  CHM 3410 Physical Chemistry I  MCB 4603  Environmental Microbiology  PCB 4813  Molec Aspects of Obesity
  MCB 3202 Infectious Disease  PCB 3063  Genetics  PCB 4832  Brain Functions
  MCB 3203/L Pathogenic Micro/Lab  PCB 3703C  Human Physiology  PCB 4833  Advanced Human Physiology
  MCB 4201 Microbial Stress Response  PCB 4174  Foundation of Bio-Imaging  PCB 4843  Cell and Molec Neuroscience