Bachelor of Science in Biotechnology
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:
- 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 4342 Nanobiotechnology
  - MCB 4224 Molec Biology of Diseases
  - PCB 4284 Immunobiology
  - BSC 4434 Sequence Analysis
  - MCB 4404 Bacterial Genetics & Physio
  - PCB 4521 Tissue Engineering
  - BSC 4439 Structure Analysis
  - MCB 4414 Physio & Biochem Microbes
  - 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

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