



Minor in Biomedical Sciences

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. Required Courses

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"/> MCB 3020C | General Microbiology | 5 hrs |
| <input type="checkbox"/> PCB 3233L | Immunology Laboratory | 1 hrs |
| <input type="checkbox"/> PCB 3522 | Molecular Biology I | 3 hrs |
| <input type="checkbox"/> PCB 4524 | Molecular Biology II | 3 hrs |
| <input type="checkbox"/> BSC 3403C | Quantitative Biological Methods | 4 hrs |

III. Complete At Least 1 of the Following

- | | | |
|-----------------------------------|----------------------|-------|
| <input type="checkbox"/> PCB 3233 | Immunology | 3 hrs |
| <input type="checkbox"/> PCB 4280 | Molecular Immunology | 3 hrs |

IV. Restricted Electives

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"/> MCB 3020C | General Microbiology | 5 hrs |
| <input type="checkbox"/> PCB 3233L | Immunology Laboratory | 1 hrs |
| <input type="checkbox"/> PCB 3522 | Molecular Biology I | 3 hrs |
| <input type="checkbox"/> PCB 4524 | Molecular Biology II | 3 hrs |
| <input type="checkbox"/> BSC 3403C | Quantitative Biological Methods | 4 hrs |

V. Other 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"/> MCB 3020C | General Microbiology | 5 hrs |

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-

- 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

A. 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



College of Medicine

BCH 4103L Biochemical Methods[^]

BOT 4434C General Mycology

MCB 3203/L Pathogenic Microbiology + Lab^{*}

MCB 4114C Determinative & Systemic Microbiology

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^{*}