



Biology Roadmap 2024-2025



All prerequisite courses require a "C" (2.0) or better

MPT = Appropriate Score on Math Placement Test CPE = Appropriate Score on Chem Placement Exam.

Common Program Prerequisites - "C" (2.0) or better in each course

| | | Credits | Status |
|-----------------|---|---------|-----------------------|
| BSC2010C | Biology I (GEP) PR: High school biology | 4 | <input type="text"/> |
| BSC2011C | Biology II PR: BSC 2010C | 4 | <input type="text"/> |
| CHM2045C | Chemistry Fundamentals I (GEP) PR: CHM 1025 or CPE, and MAC 1105 or MPT | 4 | <input type="text"/> |
| CHM2046 | Chemistry Fundamentals II PR: CHM 2045C, and MAC 1105C or MPT | 3 | <input type="text"/> |
| CHM2046L | Chemistry Fundamentals Lab PR or CR: CHM2046 | 1 | <input type="text"/> |
| MAC2311C | Calculus with Analytic Geometry I PR: MAC1140C & MAC1114C, or MPT | 4 | <input type="radio"/> |
| ---OR--- | | | |
| MAC2233 | Concepts of Calculus PR: MAC 1140C or MPT | 3 | <input type="radio"/> |
| STA2023 | Statistical Methods I (GEP) PR: MGF 1106 or any MAC course | 3 | <input type="text"/> |
| PHY2053 | College Physics I PR: MAC 1114C or higher, or MPT | 3 | <input type="text"/> |
| PHY2053L | College Physics I Lab PR or CR: PHY 2053 <i>Also satisfied by PHY 2053C (4cr, Lab included)</i> <i>Also satisfied by PHY 2048C, or PHY 2048 & Lab (PR: MAC2311C)</i> | 1 | <input type="text"/> |
| PHY2054 | College Physics II PR: PHY 2053 | 3 | <input type="text"/> |
| PHY2054L | College Physics II Lab PR or CR: PHY 2054 <i>Also satisfied by PHY 2054C (4cr, Lab included)</i> <i>Also satisfied by PHY 2049C, or PHY 2049 & Lab (PR: PHY 2048 & MAC2312)</i> | 1 | <input type="text"/> |

| | | Credits | Status |
|-----------------|--|---------|----------------------|
| CHM2210 | Organic Chemistry I PR: CHM 2046 | 3 | <input type="text"/> |
| CHM2211 | Organic Chemistry II PR: CHM 2210 | 3 | <input type="text"/> |
| CHM2211L | Organic Laboratory Techniques I PR: CHM 2046L and CHM 2210 <i>Also satisfied by CHM2205 <input type="checkbox"/> followed by CHM3120 <input type="checkbox"/> and CHM3120L <input type="checkbox"/></i> | 2 | <input type="text"/> |

Biology Core Requirements: "C" (2.0) or better in each course

| | | Credits | Status |
|-----------------|---|---------|----------------------|
| PCB3044* | Principles of Ecology PR: CHM2045, BSC 2010C & BSC2011C | 3 | <input type="text"/> |
| PCB3063* | Genetics PR: BSC2011C or CHM2046 | 3 | <input type="text"/> |
| PCB3023* | Molecular Cell Biology PR: CHM2210 or CHM2205 or CHM3120, and BSC2010C, and PCB3063 | 3 | <input type="text"/> |
| PCB4683* | Evolutionary Biology PR: JR Standing & PCB 3063 | 4 | <input type="text"/> |

Were all four of the above courses taken at UCF? YES nothing further needed
 NO check overall UL residency: ____ of 22

Upper Level Lab Requirements

| | | | |
|-------------------|--|---|----------------------|
| Lab A | PCB3044L Principles of Ecology Lab <input type="radio"/> | 1 | <input type="text"/> |
| <i>Choose one</i> | PCB3063L Genetics Laboratory <input type="radio"/> | | |
| | PCB4683L Evolutionary Biology Lab <input type="radio"/> | | |
| Lab B | A second Lab A course, or other lab elective (see second page) | | |

Upper Level Electives

22 Credit Hours of Electives - See Second Page

Other Requirements

UCF GPA _____ Major GPA _____
 2.0 minimum 2.0 minimum

Exit Exam*

* The Biology Exit Exam covers the following core courses: Biology I, Biology II, Genetics, Ecology, Molecular Cell Biology, and Evolutionary Biology.

| Biology Major B.S. – Marine and Aquatic Track | | | | | | Upper Division Restricted Electives (22 hrs) | | | | | | | | | | | |
|---|---|--|---|---|---|--|--------|--|------------------------------------|--|----|---|---|--------------------------|--------|--|--|
| KEY: R = Elective Residency (Taught by UCF Biology Dept) L = Lab Option A = Animal/Zoology Option P = Plant/Botany Option | | | | | | | | | | | | | | | | | |
| Course Detail | | R | L | A | P | Cr | Status | Course Detail | | R | L | A | P | Cr | Status | | |
| REQUIRED - COMPLETE AT LEAST 1 | | | | | | "C" or better required | | | | | | | | | | | |
| BSC 3312 | Principles of Marine Biology | R | | | | 3 | | BSC 4821 | Biogeography | R | | | | 4 | | | |
| OCE 3008 | Oceanography | R | | | | 3 | | ENY 4004C | General Entomology | R | L | A | | 4 | | | |
| PCB 3442 | Aquatic Ecology | R | | | | 3 | | ENY 4455C | Social Insect Behavior | R | L | A | | 4 | | | |
| RESTRICTED - COMPLETE AT LEAST 4 | | | | | | Additional From Above, or: | | | | | | | | | | | |
| BSC 4312C | Advanced Marine Biology | R | L | | | 4 | | MCB 3020C | General Microbiology | | | | | 5 | | | |
| BSC 4310 | Service Learning Marine Conserv | R | | | | 3 | | PCB 3044L | Principles of Ecology Lab | R | L* | | | 1 | | | |
| BSC 4473C | Scientific Diving | R | | | | 4 | | PCB 3063L | Genetics Laboratory | R | L* | | | 1 | | | |
| BSC 4927 | Sci and Public Engage for Bio Majors | R | | | | 3 | | PCB 3233 | Immunology | | | | | 3 | | | |
| PCB 4301C | Wetland Ecology & Biogeochemistry | R | L | | | 4 | | PCB 3354 | Tropical Ecology and Conservation | R | | | | 3 | | | |
| PCB 4413 | Sensory Ecology | R | | | | 3 | | PCB 3522 | Molecular Biology I | | | | | 3 | | | |
| PAZ 4234 | Zoo and Aquarium Management | R | | | | 3 | | PCB 3703C | Human Physiology | | | | | 4 | | | |
| ZOO 3454 | Ichthyology | R | | A | | 3 | | PCB 4353 | Fl Ecology, Natural History & Cons | R | | | | 3 | | | |
| ZOO 3713 | Comparative Vertebrate Anatomy | R | | A | | 4 | | PCB 4353L | Florida Ecology Lab | R | L | | | 1 | | | |
| ZOO 4205C | Invertebrate Biodiversity | R | L | A | | 4 | | PCB 4402 | Disease Ecology & Ecoimmunology | R | | | | 3 | | | |
| ZOO 4405C | Sea Turtle Ecology, Conserv Intern | R | L | A | | 3 | | PCB 4408 | Urban Ecology | R | | | | 3 | | | |
| ZOO 4462C | Herpetology | R | L | A | | 4 | | PCB 4514 | Epigenetics | R | | | | 3 | | | |
| ZOO 4480 | Mammalogy | R | | A | | 4 | | PCB 4524 | Molecular Biology II | | | | | 3 | | | |
| COMPLETE REMAINING REQUIREMENTS | | | | | | Additional From Above, or: | | | | | | | | | | | |
| ANT 3550C | Primateology | | | A | | 3 | | PCB 4575 | Wildlife Genomics | R | | | | 3 | | | |
| BCH 4024 | Medical Biochemistry | | | | | 4 | | PCB 4683L | Evolutionary Biology Lab | R | L* | | | 1 | | | |
| BCH 4053 | Biochemistry I | | | | | 3 | | PCB 4723 | Animal Physiology | R | | A | | 4 | | | |
| BCH 4054 | Biochemistry II | | | | | 3 | | PCB 4932 | Population Ecology | R | | | | 3 | | | |
| BOT 3015 | Principles of Plant Science ² | R | | | P | 3 | | ZOO 3001 | Integrated Principles of Zoology | R | | A | | 3 | | | |
| BOT 3802 | Ethnobotany ² | R | | | P | 3 | | ZOO 4272 | Ornithology | R | | A | | 3 | | | |
| BOT 3018C | Cul Botany Across the Cultures | R | L | | P | 4 | | ZOO 4310C | Vertebrate Evolution & Ecology | R | L | A | | 4 | | | |
| BOT 4223C | Plant Anatomy | R | L | | P | 4 | | ZOO 4513 | Animal Behavior | R | | A | | 3 | | | |
| BOT 4303C | Plant Kingdom | R | L | | P | 4 | | ZOO 4480L | Mammalogy Lab | R | L | | | 1 | | | |
| BOT 4503C | Plant Physiology | R | L | | P | 4 | | ZOO 4513 | Animal Behavior | R | | A | | 3 | | | |
| BOT 4713C | Plant Taxonomy | R | L | | P | 5 | | ZOO 4603C | Embryology/Development | R | L | A | | 5 | | | |
| BOT 4850 | Medical Botany | R | | | P | 3 | | ZOO 4756C | Comparative Vertebrate Histology | R | L | A | | 4 | | | |
| BSC 3052 | Conservation Biology | R | | | | 3 | | ZOO 4910L | Res in Animal Beh. in a Zoo Env | R | L | A | | 3 | | | |
| BSC 3403C | Quantitative Biological Methods | | | | | | | ZOO 3713L | Comp Vert Anat Lab | R | L | | | 1 | | | |
| BSC 3453C | Bio Res. Meth & Exp Design | R | | | | 3 | | ZOO 3733C | Human Anatomy | | | | | 4 | | | |
| BSC 4330 | Invasion Biology | R | | | | 3 | | <p>Only a few elective courses are offered each semester. We suggest performing class search using Department > Biology (to find "R" elective courses)</p> | | | | | | | | | |
| BSC 4445C | Genomics Laboratory | R | L | | | 4 | | | | | | | | | | | |
| BSC 4456C | Programming for Biologists | R | | | | 3 | | <p>Current & IP Total: _____ / 22 Needed: <u>22</u></p> | | | | | | | | | |
| Requirements Met: | | Animal/Zoology Course (A) <input type="checkbox"/> | | Plant / Botany Course (P) ² <input type="checkbox"/> | | Lab A (L*) <input type="checkbox"/> | | Lab B (L) <input type="checkbox"/> | | 10+ Residence <input type="checkbox"/> | | Elective Hours (R) <input type="checkbox"/> | | <input type="checkbox"/> | | | |

¹ You may only earn a MAXIMUM OF 4 CREDIT HOURS from internship, research and independent study (collectively) towards your Biology electives.

NOTES

General Education Program

Your GEPs are _____ (complete or not complete).

Most students have room two "free electives". Also called "unrestricted electives", these are upper level courses (3000+) of your choice that can be taken from outside the Biology department. You may wish to choose courses you find fun or interesting to incorporate during semesters when you are taking rigorous courses. If you'd like a list of ideas for free electives, ask your advisor.

About the Biology Exit Exam: <https://academicsuccess.ucf.edu/utc/biology/>

PROJECTED SCHEDULE

Semester

Semester

Semester

Semester

Semester

Semester