



# 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 |  |   | Credits         | Status                                     |
|---|---|---------|--------|--|---|-----------------|--|
| <b>BSC2010C</b>                                       | <b>Biology I (GEP)</b><br>PR: High school biology   | 4       | _____  | <b>CHM2210</b>   | <b>Organic Chemistry I</b><br>PR: CHM 2046  | 3               | _____                                      |
| <b>BSC2011C</b>                                       | <b>Biology II</b><br>PR: BSC 2010C  | 4       | _____  | <b>CHM2211</b>   | <b>Organic Chemistry II</b><br>PR: CHM 2210   | 3               | _____                                      |
| <b>CHM2045C</b>                                       | <b>Chemistry Fundamentals I (GEP)</b><br>PR: CHM 1025 or CPE, and MAC 1105 or MPT   | 4       | _____  | <b>CHM2211L</b>  | <b>Organic Laboratory Techniques I</b><br>PR: CHM 2046L and CHM 2210<br><br><i>Also satisfied by CHM2205 followed by CHM3120 and CHM3120L</i> | 2               | _____                                      |
| <b>CHM2046</b>  | <b>Chemistry Fundamentals II</b><br>PR: CHM 2045C, and MAC 1105C or MPT   | 3       | _____  | <b>Biology Core Requirements: "C" (2.0) or better in each course</b>   |   |                 |  |
| <b>CHM2046L</b>                                       | <b>Chemistry Fundamentals Lab</b><br>PR or CR: CHM2046  | 1       | _____  | <b>PCB3044*</b>  | <b>Principles of Ecology</b><br>PR: CHM2045, BSC 2010C & BSC2011C   | 3               | _____                                      |
| <b>MAC2311C</b>                                       | <b>Calculus with Analytic Geometry I</b><br>PR: MAC1140C & MAC1114C, or MPT   | 4       | _____  | <b>PCB3063*</b>  | <b>Genetics</b><br>PR: BSC2011C or CHM2046  | 3               | _____                                      |
| ---OR---  |   |         |        | <b>PCB3023*</b>  | <b>Molecular Cell Biology</b><br>PR: CHM2210 or CHM2205 or CHM3120, and BSC2010C, and PCB3063   | 3               | _____                                      |
| <b>MAC2233</b>  | <b>Concepts of Calculus</b><br>PR: MAC 1140C or MPT   | 3       | _____  | <b>PCB4683*</b>  | <b>Evolutionary Biology</b><br>PR: JR Standing & PCB 3063   | 4               | _____                                      |
| <b>STA2023</b>  | <b>Statistical Methods I (GEP)</b><br>PR: MGF 1106 or any MAC course  | 3       | _____  | <i>Were all four of the above courses taken at UCF?</i> YES <input type="checkbox"/> nothing further needed<br>NO <input type="checkbox"/> check overall UL residency: _____ of 23 |   |                 |  |
| <b>PHY2053</b>  | <b>College Physics I</b><br>PR: MAC 1114C or higher, or MPT   | 3       | _____  | <b>Upper Level Lab Requirements</b>  |   |                 |  |
| <b>PHY2053L</b>                                       | <b>College Physics I Lab</b><br>PR or CR: PHY 2053<br><br><i>Also satisfied by PHY 2053C (4cr, Lab included)</i><br><i>Also satisfied by PHY 2048C, or PHY 2048 &amp; Lab (PR: MAC2311C)</i>                | 1       | _____  | <b>Lab A</b>   | PCB3044L Principles of Ecology Lab<br>PCB3063L Genetics Laboratory<br>PCB4683L Evolutionary Biology Lab                                       | 1               | _____                                      |
| <b>PHY2054</b>  | <b>College Physics II</b><br>PR: PHY 2053   | 3       | _____  | <b>Lab B</b>   | <i>A second Lab A course, or other lab elective (see second page)</i>   |                 |  |
| <b>PHY2054L</b>                                       | <b>College Physics II Lab</b><br>PR or CR: PHY 2054<br><br><i>Also satisfied by PHY 2054C (4cr, Lab included)</i><br><i>Also satisfied by PHY 2049C, or PHY 2049 &amp; Lab (PR: PHY 2048 &amp; MAC2312)</i> | 1       | _____  | <b>Upper Level Electives</b>   |   |                 |  |
| <b>22 Credit Hours of Electives - See Second Page</b> |   |         |        |  |   |                 |  |
| <b>Other Requirements</b>                             |   |         |        |  |   |                 |  |
| UCF GPA _____   |   |         |        |  |   | Major GPA _____ |  |
| 2.0 minimum   |   |         |        |  |   | 2.0 minimum     |  |
|   |   |         |        |  |   |                 | <b>Exit Exam*</b> <input type="checkbox"/> |



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

TRACK

NAME

UCF ID

DATE

|  |                                       | Biology Major B.S. – Plant Science 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 |  |
| <b>REQUIRED - MUST COMPLETE</b>  |                                       | <b>"C" or better required</b>   |    |   |                         |    |  |   |                                    |                    |    |   |                                    |    |        |  |
| BOT 3015   | Principles of Plant Science           | R   |    |   | P                       | 3  |  | PCB 3354  | Tropical Ecology and Conservation  | R                  |    |   |                                    | 3  |        |  |
| <b>RESTRICTED - COMPLETE AT LEAST 4</b>  |                                       |   |    |   |                         |    |  |   |                                    |                    |    |   |                                    |    |        |  |
| BOT 3802   | Ethnobotany                           | R   |    |   | P                       | 3  |  | PCB 3355L   | Tropical Marine Biology            | R                  |    |   |                                    | 2  |        |  |
| BOT 4223C  | Plant Anatomy                         | R   | L  |   | P                       | 4  |  | PCB 3442  | Aquatic Ecology                    | R                  |    |   |                                    | 3  |        |  |
| BOT 4303C  | Plant Kingdom                         | R   | L  |   | P                       | 4  |  | PCB 3522  | Molecular Biology I                |                    |    |   |                                    | 3  |        |  |
| BOT 4503C  | Plant Physiology                      | R   | L  |   | P                       | 4  |  | PCB 3703C   | Human Physiology                   |                    |    |   |                                    | 4  |        |  |
| BOT 4713C  | Plant Taxonomy                        | R   | L  |   | P                       | 5  |  | PCB 4301C   | Wetland Ecology & Biogeochem.      | R                  | L  |   |                                    | 4  |        |  |
| BOT 4922   | Plant Science Capstone                | R   |    |   |                         |    |  | PCB 4353  | Fl Ecology, Natural History & Cons | R                  |    |   |                                    | 3  |        |  |
| BOT 4941   | Plant Science Internship <sup>1</sup> | R   |    |   |                         |    |  | PCB 4353L   | Florida Ecology Lab                | R                  | L  |   |                                    | 1  |        |  |
| BOT 4850   | Medical Botany                        | R   |    |   | P                       | 3  |  | PCB 4402  | Disease Ecology & Ecoimmunology    | R                  |    |   |                                    | 3  |        |  |
| BSC 4927   | Sci and Public Engage for Bio Majors  | R   |    |   |                         | 3  |  | PCB 4408  | Urban Ecology                      | R                  |    |   |                                    | 3  |        |  |
| <b>NON-TRACK / GENERAL TRACK OPTIONS</b>   |                                       |   |    |   |                         |    |  |   |                                    |                    |    |   |                                    |    |        |  |
| ANT 3550C  | Primatology                           |   |    | A |                         | 3  |  | PCB 4413  | Sensory Ecology                    | R                  |    |   |                                    | 3  |        |  |
| ANT 4516   | Human Biological Diversity            |   |    |   |                         | 3  |  | PCB 4514  | Epigenetics                        | R                  |    |   |                                    | 3  |        |  |
| BCH 4053   | Biochemistry I                        |   |    |   |                         | 3  |  | PCB 4524  | Molecular Biology II               |                    |    |   |                                    | 3  |        |  |
| BCH 4054   | Biochemistry II                       |   |    |   |                         | 3  |  | PCB 4575  | Wildlife Genomics                  | R                  |    |   |                                    | 3  |        |  |
| BOT 3018C  | Cul Botany Across the Cultures        | R   | L  |   | P                       | 4  |  | PCB 4683L   | Evolutionary Biology Lab           | R                  | L* |   |                                    | 1  |        |  |
| BSC 3052   | Conservation Biology                  | R   |    |   |                         | 3  |  | PCB 4723  | Animal Physiology                  | R                  |    | A   |                                    | 4  |        |  |
| BSC 3312   | Principles of Marine Biology          | R   |    |   |                         | 3  |  | PCB 4932  | Population Ecology                 | R                  |    |   |                                    | 3  |        |  |
| BSC 3403C  | Quantitative Biological Methods       |   |    |   |                         | 4  |  | ZOO 3001  | Integrated Principles of Zoology   | R                  |    | A   |                                    | 3  |        |  |
| BSC 3453C  | Bio Res. Meth & Exp Design            | R   |    |   |                         | 3  |  | ZOO 3454  | Ichthyology                        | R                  |    | A   |                                    | 3  |        |  |
| BSC 4310   | Service Learning Marine Conserv       | R   |    |   |                         | 3  |  | ZOO 3713  | Comparative Vertebrate Anatomy     | R                  |    | A   |                                    | 4  |        |  |
| BSC 4312C  | Advanced Marine Biology               | R   | L  |   |                         | 4  |  | ZOO 3713L   | Comp Vert Anat Lab                 | R                  | L  |   |                                    | 1  |        |  |
| BSC 4330   | Invasion Biology                      | R   |    |   |                         | 3  |  | ZOO 3733C   | Human Anatomy                      |                    |    |   |                                    | 4  |        |  |
| BSC 4445C  | Genomics Laboratory                   | R   | L  |   |                         | 4  |  | ZOO 4205C   | Invertebrate Biodiversity          | R                  | L  | A   |                                    | 4  |        |  |
| BSC 4456C  | Programming for Biologists            | R   |    |   |                         | 3  |  | ZOO 4272  | Ornithology                        | R                  |    | A   |                                    | 3  |        |  |
| BSC 4473C  | Scientific Diving                     | R   |    |   |                         | 4  |  | ZOO 4310C   | Vertebrate Evolution & Ecology     | R                  | L  | A   |                                    | 4  |        |  |
| BSC 4821   | Biogeography                          | R   |    |   |                         | 4  |  | ZOO 4405C   | Sea Turtle Ecology, Conserv Intern | R                  | L  | A   |                                    | 3  |        |  |
| ENY 4004C  | General Entomology                    | R   | L  | A |                         | 4  |  | ZOO 4462C   | Herpetology                        | R                  | L  | A   |                                    | 4  |        |  |
| ENY 4455C  | Social Insect Behavior                | R   | L  | A |                         | 4  |  | ZOO 4480  | Mammalogy                          | R                  |    | A   |                                    | 4  |        |  |
| MCB 3020C  | General Microbiology                  |   | L  |   |                         | 5  |  | ZOO 4480L   | Mammalogy Lab                      | R                  | L  |   |                                    | 1  |        |  |
| OCE 3008   | Oceanography                          | R   |    |   |                         | 3  |  | ZOO 4513  | Animal Behavior                    | R                  |    | A   |                                    | 3  |        |  |
| PAZ 4234   | Zoo and Aquarium Management           | R   |    |   |                         | 3  |  | ZOO 4603C   | Embryology/Development             | R                  | L  | A   |                                    | 5  |        |  |
| PCB 3044L  | Principles of Ecology Lab             | R   | L* |   |                         | 1  |  | ZOO 4756C   | Comparative Vertebrate Histology   | R                  | L  | A   |                                    | 4  |        |  |
| PCB 3063L  | Genetics Laboratory                   | R   | L* |   |                         | 1  |  | ZOO 4910L   | Res in Animal Beh. in a Zoo Env    | R                  | L  | A   |                                    | 3  |        |  |
| PCB 3233   | Immunology                            |   |    |   |                         | 3  |  | <b>Only a few elective courses are offered each semester. We suggest performing class search using Department &gt; Biology (to find "R" elective courses)</b> |                                    |                    |    |   |                                    |    |        |  |
|  |                                       |   |    |   |                         |    |  | <b>Current &amp; IP Total: _____ / 22      Needed: _____</b>  |                                    |                    |    |   |                                    |    |        |  |
| <b>Requirements</b>  |                                       | Animal/Zoology  |    |   | Plant / Botany          |    |  | Lab A (L*)  |                                    | 10+ Residence      |    |   | <i>in addition to 13cr of Core</i> |    |        |  |
| <b>Met:</b>  |                                       | Course (A)  |    |   | Course (P) <sup>2</sup> |    |  | Lab B (L)   |                                    | Elective Hours (R) |    |   |                                    |    |        |  |

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

**NAME**

**UCF ID**

**DATE**

# NOTES

## PROJECTED SCHEDULE

**Semester**

**Semester**

**Semester**

**Semester**

**Semester**

**Semester**

If planning through graduation, you *may* need to include upper-level "free electives" to meet the university requirement of 42 upper level credit hours. Best practice is to focus on major courses as free electives can be taken your final semester if needed.

**UL Credits remaining out of 42:**

**UL Credits remaining in major:**

**Room for Free Electives?**

**Yes**

**No**