

Name \_\_\_\_\_  
UCFID \_\_\_\_\_

Road Map- Ecology, Evolutionary and Conservation Biology  
Catalog Year: Summer 2021 and On

Advisor \_\_\_\_\_ Date \_\_\_\_\_

**Additional Biology Electives: (5-9 hours)**

**1. State General Education Core**

- Communication Foundation: ENC 110
- Cultural Foundation: HUM2020, MUL2010, THE2000, PHI2010
- Mathematical Foundation: MAC1105C, MAC2311C, MGF1106, MGF1107, STA2023
- Social Foundation: ECO2013, POS2041, AMH2020, PSY2012, SYG2000, ANT2000
- Science Foundation: CHM 2045C, BSC 2010C

**2. General Education Program (36 Hours)**

[See COSAS for assistance with GEP planning]

- Communication Foundations  
ENC 1101 - Composition I  
ENC 1102 - Composition II  
SPC 1603C - Fundamentals of Technical Presentations  
Cultural & Historical Foundations
- Mathematical Foundations  
Mathematics  
- MAC 2311C - Calculus with Analytic Geometry I  
Statistics  
- STA 2023 - Statistical Methods I  
Social Foundations  
Science Foundations  
- BSC 2010C - Biology I  
- CHM 2045C - Chemistry Fundamentals I

**3. University Requirements**

- ❖ 9 hours of summer enrollment (total) in academic career. \_\_\_\_\_ of 9
- ❖ At least 2.0 needed: \_\_\_\_\_ UCF GPA \_\_\_\_\_ Major GPA
- ❖ 42 hours 3xxx-4xxx level – 35 Biology requires = 7 hours left (to be satisfied with free electives or minor) \_\_\_\_\_ of 7

**4. Major Requirements**

- ❖ A minimum of 2.0 in all UCF courses taken in common program prerequisites, Biology core, and upper division restricted electives.
- ❖ A minimum of a C (2.0) in all Biology offered Core Classes and Required Electives is required for graduation.
- ❖ Exit Exam- to be completed upon completion of Biology core courses
- ❖ Departmental Residency Requirement: \_\_\_\_\_ of 22
  - o 22 hours of regularly scheduled upper division courses must be taken in the UCF Biology Department.

**5. Biology core courses (21 hours)**

|                               |       |   |
|-------------------------------|-------|---|
| BSC 2010C Gen Biology         | _____ | 4 |
| BSC 2011C Biology 2           | _____ | 4 |
| PCB 3023 Molec Cell Bio       | _____ | 3 |
| PCB 3044 Ecology              | _____ | 3 |
| PCB 3063 Genetics             | _____ | 3 |
| PCB 4683 Evolutionary Biology | _____ | 4 |

**5A. Cognate Sciences Core (31-33 hours)**

|  |           |           |
|--|-----------|-----------|
| <b>Chemistry Placement Test:</b> CHM 1025 Intro to Chemistry _____ |           |           |
| CHM 2045C Chemistry Fundamentals I                                 | _____     | 4         |
| CHM 2046 Chemistry Fundamentals II                                 | _____     | 3         |
| CHM 2046L Chemistry Fundamentals Lab                               | _____     | 1         |
|  |           |           |
| CHM 2210   | CHM 2205  | _____ 3/5 |
| CHM 2211 or  | CHM 3120  | _____ 3/3 |
| CHM 2211L  | CHM 3120L | _____ 2/1 |
|  |           |           |
| PHY 2053C (or +L) or PHY 2048C (or +L)                             | _____     | 4/3+1     |
| PHY 2054C (or +L) or PHY 2049C (or +L)                             | _____     | 4/3+1     |

**Math Placement Test:** MAT1033C \_\_\_\_\_, MAC1105 \_\_\_\_\_, MAC1114 \_\_\_\_\_, MAC 1140 \_\_\_\_\_

|   |       |   |
|---|-------|---|
| MAC 2311 or MAC 2233 or MAC 2253 Calculus | _____ | 4 |
| STA 2023 Statistical Methods I            | _____ | 3 |

**5B. Lab requirement- Two labs**

At least one of these labs must come from section A - Core.

**A - Core:**

- PCB 3044L - Ecology lab \_\_\_\_\_
- PCB 3063L - Genetics lab \_\_\_\_\_
- PCB 4683L - Evolutionary Biology Lab \_\_\_\_\_

**B - Non-Core: designated with †**

**6. 22 hours of restricted electives are required, with following stipulations:**  
\_\_\_\_\_ of 22 hours \_\_\_\_\_ RE GPA

- ❖ Courses must be selected from those listed below.
- ❖ Include one course exclusively on animals (**marked a**) \_\_\_\_\_, and one exclusively on plants (**marked p**) \_\_\_\_\_.
- ❖ At least 10 of the 22 hours must be courses offered by the Department of Biology (**designated with an \***). \_\_\_\_\_ of 10
- ❖ Independent Study/Directed Research: May include a maximum of 4hrs towards restricted electives- (**Completed with Biology Faculty**)
- ❖ 5000 level courses may be taken by seniors with prior permission of course instructor. You will be charged graduate level tuition.

**Required Electives (choose two of the following courses) (6-8hr)**

|               |                     |       |   |
|---------------|---------------------|-------|---|
| BSC 3052*     | Conservation Biol   | _____ | 3 |
| PCB 4684*     | Population Genetics | _____ | 3 |
| BSC 4821*     | Biogeography        | _____ | 4 |
| a ZOO 4310C*† | Vert Evo and Eco    | _____ | 4 |
| a ZOO 4513*   | Animal Behavior     | _____ | 3 |

**Restricted Electives (choose from following) (7-9 hrs)**

**\*\*Classes that satisfy the Required Electives cannot duplicate towards this section. Any Required Electives taken in excess of two will count here.\*\***

|    |             |                           |       |   |
|----|-------------|---------------------------|-------|---|
| p. | BOT 4303C*† | Plant Kingdom             | _____ | 4 |
| p. | BOT 4503C*† | Plant Physiology          | _____ | 4 |
| p. | BOT 4713C*† | Plant Taxonomy            | _____ | 5 |
|    | BSC 3052*   | Conservation Biol         | _____ | 3 |
|    | BSC 3453*   | Bio Res. Meth & Exp Desi. | _____ | 3 |
|    | BSC 4330*   | Invasion Biology          | _____ | 3 |
|    | BSC 4821*   | Biogeography              | _____ | 4 |
|    | BSC 4861L*  | Urban Ecology             | _____ | 3 |
|    | OCE 3008*   | Oceanography              | _____ | 3 |
|    | PCB 3044L*  | Ecology Lab               | _____ | 1 |
|    | PCB 3343L*  | Princ Field Ecology       | _____ | 5 |
|    | PCB 3354*   | Tropic Ecology & Cons.    | _____ | 3 |
|    | PCB 3355L*  | Tropical Marine Bio       | _____ | 2 |
|    | PCB 3442*   | Aquatic Ecology           | _____ | 3 |
|    | PCB 4301C*† | Wetland Eco & Biogeochem  | _____ | 4 |
|    | PCB 4315C*† | Marine Ecology of Florida | _____ | 4 |
|    | PCB 4353*   | FL Eco, Nat. Hist. & Cons | _____ | 3 |
|    | PCB 4353L*† | FL Natural History Lab    | _____ | 1 |
|    | PCB 4402*   | Disease Eco & Immunology  | _____ | 3 |
| a. | PCB 4413*   | Sensory Ecology           | _____ | 3 |
|    | PCB 4462*   | GIS for Biologists        | _____ | 3 |
|    | PCB 4575*   | Wildlife Genomics         | _____ | 3 |
|    | PCB 4678*   | Evolution in Medicine     | _____ | 3 |
|    | PCB 4683L*  | Evol. Biology Lab         | _____ | 1 |
|    | PCB 4684*   | Population Genetics       | _____ | 3 |
|    | PCB 5326C*  | Ecosystems of Fl          | _____ | 5 |
| a  | ZOO 3713C*† | Comp Vert Anat            | _____ | 5 |
| a  | ZOO 4205C*† | Invertebrate Biodiversity | _____ | 4 |
| a  | ZOO 4310C*† | Vert Evo and Eco          | _____ | 4 |
| a  | ZOO 4513*   | Animal Behavior           | _____ | 3 |

|    |             |                                 |       |   |
|----|-------------|---------------------------------|-------|---|
| a. | ANT 3550C   | Primatology                     | _____ | 3 |
|    | BCH 4024    | Medical Biochemistry            | _____ | 4 |
|    | BCH 4053    | Biochemistry 1                  | _____ | 3 |
|    | BCH 4054    | Biochemistry 2                  | _____ | 3 |
| p. | BOT 3015*   | Principles of Plant Science     | _____ | 3 |
| p. | BOT 3018C*† | Culinary Botany                 | _____ | 4 |
| p. | BOT 3802*   | Ethnobotany                     | _____ | 3 |
| p. | BOT 4223C*† | Plant Anatomy                   | _____ | 4 |
|    | BOT 4282C*† | Plant Microtechniques           | _____ | 4 |
| p. | BOT 4303C*† | Plant Kingdom                   | _____ | 4 |
| p. | BOT 4430C*† | Biology of Fungi                | _____ | 4 |
| p. | BOT 4503C*† | Plant Physiology                | _____ | 4 |
| p. | BOT 4530C*† | Plant Genomics and Biochemistry | _____ | 4 |
| p. | BOT 4713C*† | Plant Taxonomy                  | _____ | 5 |
| p. | BOT 4850*   | Medical Botany                  | _____ | 3 |
|    | BOT 4922*   | Plant Science Capstone          | _____ | 2 |
|    | BOT 4970H   | Honors Undergrad. Thesis        | _____ | 3 |
|    | BSC 3052*   | Conservation Biol               | _____ | 3 |
|    | BSC 3453*   | Bio Res. Meth & Exp Design      | _____ | 3 |
|    | BSC 4821*   | Biogeography                    | _____ | 4 |
|    | BSC 3312*   | Princ Marine Biol               | _____ | 3 |
|    | BSC 4312C*† | Adv Marine Biol                 | _____ | 4 |
|    | BSC 4330*   | Invasion Biology                | _____ | 3 |
|    | BSC 4456C*  | Programming for Bio             | _____ | 3 |
|    | BSC 4445C*† | Genomics Lab                    | _____ | 4 |
|    | BSC 4473C*  | Scientific Diving               | _____ | 4 |
|    | BSC 4861L*  | Urban Ecology...                | _____ | 3 |
|    | BSC 4927*   | Scientific Engagement           | _____ | 3 |
|    | BSC 5258L*  | Trop Bio Research               | _____ | 3 |
|    | BSC 5316C*  | Marine Conservation             | _____ | 4 |
| a. | ENY 3571*†  | Honey Bee Bio & Beekeeping      | _____ | 3 |
| a. | ENY 4004C*† | General Entomology              | _____ | 4 |
|    | MCB 3020C   | Gen Microbiology                | _____ | 5 |
|    | OCE 3008*   | Oceanography                    | _____ | 3 |
| a. | PAZ 4234*   | Zoo & Aquarium Mgt              | _____ | 3 |
|    | PCB 3044L*  | Ecology Lab                     | _____ | 1 |
|    | PCB 3063L*  | Genetics Lab                    | _____ | 1 |
|    | PCB 3233    | Immunology                      | _____ | 3 |
|    | PCB 3343L*  | Princ Field Ecology             | _____ | 5 |
|    | PCB 3354*   | Tropic Ecology & Cons.          | _____ | 3 |
|    | PCB 3355L*  | Tropical Marine Bio             | _____ | 2 |
|    | PCB 3442*   | Aquatic Ecology                 | _____ | 3 |
|    | PCB 3522    | Molec Bio I                     | _____ | 3 |
|    | PCB 3703C   | Human Physiology                | _____ | 4 |
|    | PCB 4301C*† | Wetland Eco & Biogeochem.       | _____ | 4 |
|    | PCB 4315C*† | Marine Ecology of Florida       | _____ | 3 |
|    | PCB 4353*   | FL Eco., Nat. Hist. & Cons.     | _____ | 3 |
|    | PCB 4353L*† | FL Ecology Lab                  | _____ | 1 |
|    | PCB 4402*   | Disease Eco & Immunology        | _____ | 3 |
| a. | PCB 4413*   | Sensory Ecology                 | _____ | 3 |
|    | PCB 4462*   | GIS for Biologists              | _____ | 3 |
|    | PCB 4514*   | Genetics II                     | _____ | 3 |
|    | PCB 4524    | Molec Bio 2                     | _____ | 3 |
|    | PCB 4575*   | Wildlife Genomics               | _____ | 3 |
|    | PCB 4678*   | Evolution in Medicine           | _____ | 3 |
|    | PCB 4683L*  | Evol. Biology Lab               | _____ | 1 |
|    | PCB 4684*   | Population Genetics             | _____ | 3 |
| a  | PCB 4723*   | Animal Physiology               | _____ | 4 |
|    | PCB 5326C*  | Ecosystems of Fl                | _____ | 5 |
|    | PCB 5435C*  | Marine Ecology of Fl            | _____ | 4 |
|    | PCB 5485*   | Models in Ecology               | _____ | 3 |
| a  | ZOO 3454*   | Ichthyology                     | _____ | 3 |
| a  | ZOO 3713C*† | Comp Vert Anat                  | _____ | 5 |
|    | ZOO 3733C   | Human Anatomy                   | _____ | 4 |
| a  | ZOO 4205C*† | Invertebrate Biodiversity       | _____ | 4 |
| a  | ZOO 4272*   | Ornithology                     | _____ | 3 |
| a  | ZOO 4310C*† | Vert Evo and Eco                | _____ | 4 |
| a  | ZOO 4405C*† | Sea Turtle Internship           | _____ | 3 |
| a  | ZOO 4462C*† | Herpetology                     | _____ | 4 |
| a  | ZOO 4480*   | Mammalogy                       | _____ | 4 |
|    | ZOO 4480L*† | Mammalogy Lab                   | _____ | 1 |
| a  | ZOO 4513*   | Animal Behavior                 | _____ | 3 |
| a  | ZOO 4603C*† | Embryology/Develop              | _____ | 5 |
| a. | ZOO 4756C*† | Comp Vert Histology             | _____ | 4 |
| a. | ZOO 4910L*† | Res Exp in Zoo Env              | _____ | 3 |

Note: If all requirements are satisfied on the road map, your major is satisfied. Please consult with COSAS for a final graduation check on all university requirements