1. State General Education Core
- Communication Foundation: ENC 110
- Mathematical Foundation: MAC1105C, MAC2311C, MGF1106, MGF1107, STA2023
- Social Foundation: ECO2013, POS2041, AMH2020, PSY212, SYG2080, 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
  - SPA 1603C - Fundamentals of Technical Presentations
- Cultural & Historical Foundations
  - MAC 2311C - Calculus with Analytic Geometry I
- Social Foundations
  - STA 2023 - Statistical Methods I
- 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
   ✷ 48 hours 3xxx-4xxx level – 35 Biology required = 13 hours left (to be satisfied with free electives or minor) ___ of 13

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 course.
   ✷ Departmental Residency Requirement: ___ of 22
     - 22 hours of regularly scheduled upper division courses must be taken in the UCF Biology Department.

5. Biology core courses (21 hours)
   - BSC 2010C Anatomy
   - BSC 2011C Biology 4
   - PCB 3023 Molec Cell Bio 3
   - PCB 3044 Ecology 3
   - PCB 3063 Genetics 3
   - PCB 4683 Evolutionary Biology 4

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.

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Marine & Aquatic Biology Track
Catalog Year: 2020-2021

5A. Cognate Sciences Core (31-33 hours)
Chemistry Placement Test: CHM1025

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CHM 2045C</td>
<td>4</td>
</tr>
<tr>
<td>CHM 2046</td>
<td>3</td>
</tr>
<tr>
<td>CHM 2046L</td>
<td>1</td>
</tr>
<tr>
<td>CHM 2210</td>
<td>3/5</td>
</tr>
<tr>
<td>CHM 2211 or CHM 3120</td>
<td>3</td>
</tr>
<tr>
<td>CHM 2211L</td>
<td>2/1</td>
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<tr>
<td>PHY 2053C (or +L)</td>
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<tr>
<td>PHY 2054C (or +L)</td>
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</table>

Math Placement Test: MAT1033C, MAC1105C, MAC1114, MAC 1140, MAC 2311 or MAC 2233 or MAC 2253

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:
   - 18 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) __.
   - Choose at least a 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 4 hours 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 one of the following courses) (3hr)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BSC 3312*</td>
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<tr>
<td>OCE 3008*</td>
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<tr>
<td>PCB 3442*</td>
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</tbody>
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Restricted Electives (12hrs)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BSC 4312C*+</td>
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</tr>
<tr>
<td>BSC 4473C*</td>
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</tr>
<tr>
<td>OCE 3008*</td>
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<tr>
<td>PCB 3355L*</td>
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<tr>
<td>PCB 3442*</td>
<td></td>
</tr>
<tr>
<td>PCB 4301C*+</td>
<td></td>
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<tr>
<td>PCB 4315C*</td>
<td></td>
</tr>
<tr>
<td>a. ZOO 4234+</td>
<td></td>
</tr>
<tr>
<td>a. ZOO 4205C*+</td>
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<tr>
<td>a. ZOO 4310C*+</td>
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</tr>
<tr>
<td>a. ZOO 4462C*+</td>
<td></td>
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<tr>
<td>a. ZOO 3545*</td>
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</tbody>
</table>

Additional Biology Electives: (7 hours)
- ANT 3550C Primatology 3

Advisor __________________________ Date _______

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
p. BOT 4282L+ Plant Microtechniques 4
p. BOT 4305C* Plant Kingdom 4
p. BOT 4430C* Biology of Fungi 4
p. BOT 4970H Honors Undergrad. Thesis 3
p. BOT 4922* Plant Science Capstone 2
p. BOT 4503C* Plant Physiology 4
p. BOT 4530C* Plant Genomics and Biochem 4
p. BOT 4731C* Plant Taxonomy 5
BSC 3052* Conservation Biol 3
BSC 4821* Biogeography 3
p. BOT 4850* Medical Botany 3
BSC 3312* Princ Marine Biol 3
BSC 3453* Bio Res. Meth & Exp Design 3
BSC 4312C* Adv Marine Biol 3
BSC 4330* Invasion Biology 3
BSC 4456C* Programming for Bio 3
BSC 4462C* Genomics Lab 3
BSC 4473C* Scientific Divining 4
BSC 4861L* Urban Ecology 3
BSC 4927* Scientific Engagement 3
BSC 5283L* Trop Bio Research 3
BSC 5316* Marine Conservation 3
a. ENY 3571* Honey Bee Bio/Bookkeeping 4
a. ENY 4004C* General Entomology* 4
MCB 3020C Gen Microbiology 5
OCE 3008* Oceanography 3
a. PAZ 4234* Zoo. Aquaculture Mgt 4
PCB 3044L Ecology Lab 1
PCB 3063L Genetics Lab 1
PCB 3233 Immunology 3
PCB 3343L+ Princ Field Ecology 3
PCB 3354* Tropical Ecology & Cons. 3
PCB 3355L* Tropical Marine Bio 3
PCB 3442* Aquatic Ecology 3
PCB 3703C Human Physiology 4
PCB 4301C*+ Wetland Eco & Biogeocem. 4
PCB 4315C* Marine Ecology of Florida 3
PCB 4353* FL Eco., Nat Hist & Cons. 3
PCB 4353L* FL Ecology Lab 3
PCB 4401* Disease Eco & Immunology 3
a. PCB 4413* Sensory Ecology 3
PCB 4514* Genetics II 3
PCB 4532* Molec Bio 1 3
PCB 4462* GIS for Biologists 3
PCB 4524* Molec Bio 2 3
PCB 4575* Wildlife Genomics 3
PCB 4683L* Evol. Ecology Lab 1
PCB 4678* Evolution in Medicine 3
PCB 4684* Population Genetics 3
PCB 4723* Animal Physiology 4
PCB 5326* Ecosystems of FL 5
PCB 5435* Marine Ecology of FL 3
PCB 5485* Models in Ecology 3
a. ZOO 3713C*+ Comp Vert Anat 5
ZOO 3733C Human Anatomy 4
a. ZOO 4205C*+ Invertebrate Biodiversity 4
a. ZOO 4310C*+ Vert Eco and Eco 4
a. ZOO 4480C* Sea Turtle Internship 3
a. ZOO 4480* Mammalogy 3
a. ZOO 4480L*+ Mammalogy Lab 1
a. ZOO 4513* Animal Behavior 4
a. ZOO 4462C* Herpetology 4
a. ZOO 4603C* Embryology/Develop 5
a. ZOO 4756C* Comp Vert Histology 4
a. ZOO 3545* Ichthyology 3
a. ZOO 4272* Ornithology 3
a. ZOO 4910L*+ Res Exp in Zoo Env 3