

Name: \_\_\_\_\_

Date: \_\_\_\_\_

ID#: \_\_\_\_\_

Quarter offered: F=Fall, W=Winter, S=Spring, (-) = Not offered this year  
 NOTE: Courses appearing in more than one category can fulfill only one requirement

**All courses on check list MUST be taken for a letter grade.**

**LOWER DIVISION REQUIREMENTS**

**Calculus:** MATH 11A (FWS) \_\_\_ + 11B (FWS) \_\_\_  
**OR** MATH 19A (FWS) \_\_\_ + 19B (FWS) \_\_\_

**General Chemistry:** CHEM 1A (FWS) \_\_\_ + 1B (FWS) \_\_\_ + 1C/N (FWS) \_\_\_

**Biology:** BIOL 20A (FWS) \_\_\_ + BIOE 20B (FWS) \_\_\_ + BIOE 20C (FWS) \_\_\_

**Physics:** PHYS 6A/L (FWS) \_\_\_ + 6B (WS) \_\_\_ **OR** PHYS 6A/L (FWS) \_\_\_ + 6C (FS) \_\_\_  
**OR** PHYS 7A/6L (-) \_\_\_ + 7B (-) \_\_\_

**Biostatistics:** AMS 7/L (FWS) \_\_\_

**UPPER DIVISION REQUIREMENTS** (11 total including 2 lab/field courses: \_\_\_\_\_ )

**Genetics:** BIOE 105 (FWS) \_\_\_

**Ecology:** BIOE 107 Ecology (FWS) \_\_\_

**Evolution:** BIOE 109 Evolution (FWS) \_\_\_

**Plant Physiology:** ONE from the following...  
 BIOE 135/L Plant Physiology (F) \_\_\_  
 \*ENVS 162 Plant Physiological Ecology \_\_\_

**Botany:** One from the following...  
 BIOE 117/L Systematic Botany (W) \_\_\_  
 BIOE 120/L Marine Botany (S) \_\_\_

**Major Qualification Policy:**

- 1) CHEM 1A
- 2) CHEM 1B
- 3) BIOL 20A
- 4) BIOE 20B
- 5) BIOE 20C

Must complete all six courses with a "C" or better; no more than 1 non-passing grade in the first 5 qualification courses is accepted.

- 6) MATH 11A or MATH 19A

**Topical Electives:** THREE from the following...

- BIOE 117/L Systematic Botany (W) \_\_\_
- BIOE 118 Plants and Society (S) \_\_\_
- BIOE 120/L Marine Botany (S) \_\_\_
- BIOE 125 Ecosystems of California (WS) \_\_\_
- BIOE 135/L Plant Physiology (F) \_\_\_
- BIOE 137/L Molecular Ecology (S) \_\_\_
- BIOE 145 Plant Ecology (F) \_\_\_
- BIOE 145L Field Methods in Plant Ecology (F18) \_\_\_
- BIOE 148A Quantitative Ecology (-) \_\_\_
- BIOE 148B Quantitative Ecology (W) \_\_\_
- BIOE 149 Disease Ecology (S) \_\_\_
- BIOE 161 Kelp Forest Ecology (F19) \_\_\_
- BIOE 161L Kelp Forest Ecology Lab (F19) \_\_\_
- BIOL 100 Biochemistry (FW) \_\_\_
- BIOL 101/L Molecular Biology (WS) \_\_\_

- BIOL 110 Cell Biology (FS) \_\_\_
- BIOL 115 Eukaryotic Molecular Biology (S) \_\_\_
- \*ENVS 104A/L Intro to Environmental Field Methods \_\_\_
- \*ENVS 129 Integrated Pest Management \_\_\_
- \*ENVS 130A/L Agroecology & Sustainable Agriculture \_\_\_
- \*ENVS 130B Principles of Sustainable Agriculture \_\_\_
- \*ENVS 131 Insect Ecology \_\_\_
- \*ENVS 160 Restoration Ecology \_\_\_
- \*ENVS 161A Soils & Plant Nutrition \_\_\_
- \*ENVS 162 Plant Physiological Ecology \_\_\_
- \*ENVS 163 Plant Disease Ecology \_\_\_
- \*Permission of instructor required to enroll in ENVS courses
- Field Quarter:
  - \_\_\_ BIOE 151ABCD Ecology & Conservation in Practice (S19)\*\*
  - \_\_\_ BIOE 153ABC Arctic Ecology (S20)\*\*
- \*\*See course equivalencies on reverse

**THREE additional EEB General Electives:** \_\_\_\_\_

**DC** Completion of TWO *approved* BIOE courses: \_\_\_\_\_

Note: DC courses must be completed at UCSC. Review approved courses here:

<https://www.eeb.ucsc.edu/academics/undergrad/majors-academic-planning/majors-academic-planning-dc.html>

**COMPREHENSIVE REQUIREMENT** (Senior Exit Requirement): \_\_\_\_\_

For details see: <https://www.eeb.ucsc.edu/academics/undergrad/majors-academic-planning/majors-academic-planning-exit.html>

## Ecology & Evolutionary Biology GENERAL ELECTIVES

2018-19

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NOTE: Courses appearing in more than one category can fulfill only one requirement.

BIOE 107 Ecology [Marine Biology only] (FWS) ____	BIOL 100 Biochemistry (FW) ____
BIOE 108 Marine Ecology (W) ____	BIOL 101/L Molecular Biology (WS) ____
BIOE 112/L Ornithology (F19) ____	BIOL 110 Cell Biology (FS) ____
BIOE 114/L Herpetology (S20) ____	BIOL 115 Eukaryotic Molecular Biology (S) ____
BIOE 117/L Systematic Botany of Flowering Plants (W) ____	BIOL 120 Developmental Biology (W) ____
BIOE 118 Plants and Society (S) ____	EART 100/L Vertebrate Paleontology (-) ____
BIOE 120/L Marine Botany (S) ____	EART 101/L Invertebrate Paleobiology (F) ____
BIOE 122/L Invertebrates (W) ____	EART 102 Marine Geology (-) ____
BIOE 125 Ecosystems of California (WS) ____	EART 105 Coastal Geology (F) ____
BIOE 124/L Mammalogy (F) ____	ECON 166A Game Theory and Applications I ____
BIOE 127/L Ichthyology (W20) ____	ECON 166B Game Theory and Applications II ____
BIOE 128L Large Marine Vertebrates Field (S) ____	*ENVS 104A/L Intro, Environmental Field Methods ____
BIOE 129/L Biology of Marine Mammals (lab optional) (S) ____	*ENVS 108 General Entomology ____
BIOE 131/L Animal Physiology (lab optional) (W) ____	*ENVS 115A/L GIS & Environmental Applications ____
BIOE 133/L Exercise Physiology (S20) ____	*ENVS 120 Conservation Biology ____
BIOE 134/L Comparative Vertebrate Anatomy (S) ____	*ENVS 122 Tropical Ecology & Conservation ____
BIOE 135/L Plant Physiology (F) ____	*ENVS 123 Animal Ecology & Conservation ____
BIOE 136 Environmental Physiology (F) ____	*ENVS 129 Integrated Pest Management ____
BIOE 137/L Molecular Ecology (S) ____	*ENVS 130A/L Agroecology & Sustainable Agriculture ____
BIOE 140 Behavioral Ecology (F) ____	*ENVS 130B Principles of Sustainable Agriculture ____
BIOE 141L Behavioral Ecology Field Course (W19) ____	*ENVS 131 Insect Ecology ____
BIOE 145 Plant Ecology (F) ____	*ENVS 160 Restoration Ecology ____
BIOE 145L Field Methods Plant Ecology (F18) ____	*ENVS 161A Soils & Plant Nutrition ____
BIOE 147 Community Ecology (S) ____	*ENVS 162 Plant Physiological Ecology ____
BIOE 148A Quantitative Ecology (-) ____	*ENVS 163 Plant Disease Ecology ____
BIOE 148B Quantitative Methods (W) ____	*ENVS 167 Freshwater & Wetland Ecology ____
BIOE 149 Disease Ecology (S) ____	*ENVS 168 Biochemistry & the Global Environment ____
BIOE 150 Ecological Field Methods (-) ____	METX 119 Microbiology (FS) ____
BIOE 150L Ecological Field Methods Lab (-) ____	METX 119L Microbiology Lab (FWS) ____
BIOE 155 Freshwater Ecology (F) ____	OCEA 118 Marine Microbial Ecology (S) ____
BIOE 155L Freshwater Ecology Lab (-) ____	OCEA 130 Biological Oceanography (S) ____
BIOE 158L Marine Ecology Lab (-) ____	*PSYC 123 Behavioral Neuroscience ____
BIOE 161 Kelp Forest Ecology (F19) ____	
BIOE 161L Kelp Forest Ecology Lab (F19) ____	
BIOE 163/L Ecology of Reefs, Mangroves & Seagrasses (W) ____	
BIOE 165 Marine Conservation Biology (F) ____	
BIOE 171 Disciplinary Communications for Biologists (-) ____	
BIOE 172/L Population Genetics (F) ____	

\*Permission of instructor is required to enroll in these courses; be sure to check timing of offerings

### Field Quarter Equivalencies:

- \_\_\_\_ BIOE 151ABCD Ecology & Conservation in Practice (SP19) = BIOE 150 + 150L + 1 EEB general elective
- \_\_\_\_ BIOE 153ABC Arctic Ecology (S20) = 1 Topical Elective + 2 EEB General Electives
- \_\_\_\_ BIOE 159ABCD Marine Ecology Field Quarter (F18) = BIOE 127/L + BIOE 108 + BIOE 158L
- \_\_\_\_ ENVS 107ABC Natural History Field Quarter (S19) = Topical Elective (5 units) + EEB General Elective (5 units)

### One of the following may also be used as an upper-division general elective:

- BIOE 183W Undergraduate Research in EEB (2 units) (FWS) \_\_\_\_ + BIOE 183L, 193, or 195 (minimum 3 units) (FWS) \_\_\_\_
- ENVS 183 Environmental Studies Internship (5 unit) \_\_\_\_