Welcome to UC Santa Cruz!

Bruce Lyon
CHAIR, EEB
UNDERGRADUATE ADVISORY COMMITTEE
Welcome to Ecology & Evolutionary Biology
Ecology and Evolutionary Biology

Renowned research reputation

Exceptional teaching reputation

Extraordinary students
Six Key Attributes of the EEB Program

1. Curriculum — breadth & depth
2. Teaching / research environments
3. Teaching / research facilities
4. Interaction with faculty and graduate students
5. Research opportunities
6. Hallmark field courses
We make these attributes available to you but it is up to you make the most of them.
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Goals of the EEB Curriculum

Sound foundation in the fundamentals of EEB

Exposure to the breadth of EEB scientific disciplines

Exposure and experience in EEB research

Understanding of the applications of EEB

Exposure to career opportunities in EEB

Instill a deep appreciation and excitement for EEB
The curriculum of each major is tailored for these goals by the required coursework:

<table>
<thead>
<tr>
<th>Program</th>
<th>Details</th>
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<tbody>
<tr>
<td>Ecology &amp; Evolution BS (ECEV)</td>
<td>The curriculum is designed to fulfill the goals outlined below.</td>
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<tr>
<td>Marine Biology BS (MABI)</td>
<td>The curriculum is designed to fulfill the goals outlined below.</td>
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<tr>
<td>Plant Sciences BS (PLNT)</td>
<td>The curriculum is designed to fulfill the goals outlined below.</td>
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<tr>
<td>Biology BA (BIOBA)</td>
<td>The curriculum is designed to fulfill the goals outlined below.</td>
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Live by: (1) checklist, (2) EEB Advisors, and (3) faculty!
Our curriculum is a reflection of our faculty areas of expertise and passion for teaching.

Four key pillars of EEB:

- Ecology
- Evolution
- Physiology
- Behavior
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Four key pillars of EEB:

- Conservation Biology
- Genetics and Genomics
- Basic & Applied Science
- Ecology
- Evolution
- Physiology
- Behavior
Terrestrial Ecology

Fox
Kilpatrick
Lyon
Parker
Zavaleta
Marine Ecology

Beltran
Carr
Croll
Kroeker
Raimondi
Potts
Freshwater Ecology

Palkovacs
Carr
Raimondi
(and National Marine Fisheries)
Evolution – terrestrial, marine, freshwater

Alonzo Bernardi Kay Kilpatrick
Lyon Meyer* Palkovacs Shapiro
Physiology & Physiological Ecology

Costa
Dunkin
Mehta
Pittermann
Williams
Behavioral Ecology & Evolutionary Ecology

Alonso
Beltran
Costa
Croll

Kilpatrick
Lyon
Palkovacs
Conservation Biology

Carr  Kilpatrick
Costa  Palkovacs
Croll  Parker
Kay   Zavaleta
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Teaching / Research Environments

**Marine**
- sandy beaches
- rocky intertidal
- estuaries
- kelp forests

**Terrestrial**
- redwood forests
- oak forests
- chaparral
- wetlands

**Freshwater**
- creeks
- rivers
- lakes
- wetlands

And elsewhere: Corsica (France), Yukon, Alaska
Coastal Science Campus

- California Fish and Wildlife
- Greenhouses and Climate Lab
- Younger Lagoon Natural Reserve
- Boating and Diving Program
- Marine Vertebrate Pools
- Coastal Biology Building
- National Marine Fishery Service
- Ocean Health Building
- Seymour Discovery Center
Plus Main Campus Facilities

- Norris Center for Natural History
- Arboretum
- Analytical labs
- UC Natural Reserves
- Green houses on top of Thimann Labs
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Interaction with faculty, researchers, and graduate students

Classroom:

Research:
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Undergraduate Research Curriculum:

BIOE 182F Exploring Research in EEB, 2 units

BIOE 183W Undergraduate Research in EEB - Writing

BIOE 183L Undergraduate Research in EEB

BIOE 193 Independent Research in EEB

BIOE 195 Senior Thesis
Opportunities outside the University

- National Marine Fisheries Service
- The Nature Conservancy
- Elkhorn Slough Reserve
- Monterey Bay Aquarium
- Monterey Bay Aquarium Research Inst.
- Monterey Bay National Marine Sanctuary
- Island Conservation Group
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Three levels of EEB field courses

2 credit labs (associated with lecture courses)
E.g. BIOE 112/L Ornithology, BIOE 129/L Marine Mammals, BIOE 114/L Herpetology (15 total)

5 credit lab/field courses
BIOE 141L Behavioral Ecology Field Course, BIOE 145 Plant Ecology, BIOE 161/L Kelp Forest Ecology, BIOE 155 Freshwater Ecology (8 total)

15-20 credit full quarter courses
E.g. BIOE 151 Ecology & Conservation (4 total)
Full quarter EEB field courses

**BIOE 159 Marine Ecology Field Quarter**
- Winter, even years - Sitka, Alaska
- Fall, even years - Corsica, France

**BIOE 151 Ecology & Conservation**
- Spring, odd years - Mexico

**UC Natural Reserve System Super Course**
- Fall, Winter, Spring, Summer annually

**BIOE 153 Arctic Biology**
- Spring, even years

*(ENVS 107 Natural History Field Quarter*
- each Spring )
Start now!

- Start preparing now for these courses you want to take two years from now
- Example: Scientific Diving Certification
- When you are ready, introduce yourself to faculty and graduate students
- We are waiting for you!
Words of Wisdom

• Experience the breadth of EEB:
  - to find your passion and make informed future decisions

• Get engaged…
  - phones and screens away in classes
  - come to departmental seminars (Fridays 9:30-10:30)
  - meet and interact with the two EEB Undergrad Reps
  - engage with one another (colleagues, not competitors)

• Be here for the knowledge, not just the grades

• Be here to change the world, not just for a degree
Any questions???