

BIEB 194: Plant Ecology in a Changing Environment

Time and Location: Wednesdays, 1-2:20pm, York 3010

Instructor: Elizabeth Ryan, e2ryan@ucsd.edu

Office hours: By appointment

Course description: Environmental change, involving climate and species interactions, is expected to have a profound effect on plant survival and distributions in the coming decades. This seminar will explore these topics through discussion and presentation of both foundational and contemporary scientific papers.

Course structure: Each class will consist of a short introduction of the topic by the instructor and/or students, followed by student-led presentations and discussions of papers for the week. Presentation groups of two will be assigned in Week 1, and student presentations will begin Week 3. Readings, an annotated bibliography template, guidelines for paper presentations and grant proposals will be available on Canvas.

If you are responsible for presenting a paper that week:

- 1) Review the guidelines for paper presentations on Canvas.
- 2) Read actively, further researching any confusions you have, so you can explain to the group.
- 3) Bring a list of questions and points to discuss with the group (can use slides or handouts).
- 4) Go around the room and ask for other student's questions/points of discussion.
- 5) Presenting groups should coordinate who is responsible for what material before presenting.

If you are not presenting a paper that week:

- 1) Read actively and come to discussion with one question or point you'd like to discuss.
- 2) Be ready to participate in discussion and answer questions posed by the paper presenters.

Due Dates:

Oct 30 – Week 6: Draft annotated bibliography due (includes week 2-6 papers)

Nov 27 – Week 9: Final annotated bibliography due (includes week 2-6 and week 8-9 papers)

Dec 4 - Week 10: Grant proposals due

No final exam

Grading:

30%: Participation: bringing discussion questions/points and actively participating

30%: Leading discussion

20%: Annotated bibliography (10% for draft, 10% for final)

20%: Grant proposal

Schedule of classes

Oct 2 - Week 1: Class logistics and introductory lecture and discussion – How to read a scientific paper

Oct 9 - Week 2: Climate change and ecological response: an overview

Oct 16 - Week 3: Species range shifts

Oct 23 - Week 4: Adaptation to climate

Oct 30 - Week 5: Plasticity in response to environment

Nov 6 - Week 6: Species interactions and communities

Nov 13 - Week 7: Lecture and discussion – How to write a grant proposal/writing time

Nov 20 - Week 8: Predicting future plant responses to environmental change

Nov 27 - Week 9: Species extinctions and conservation

Dec 4 - Week 10: Panel review of grant proposals

No final exam