

Plant Responses to the Environment Biology (ES) 3280



U. Utah

Professor Barry Logan

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Monday & Wednesday 2:50-4:15pm
Mills 210

Office Hours: Mon: 10:15-11:15am;
Tu: 9:00-10:00am, or by appointment

Grading

Your grade will be determined based upon the following:

Land-Use History Non-Specialist Article	10%
Article Presentation	15%
Article Discussion	25%
Grant Proposal	25%
Sustainability Session Presentation	10%
Preparedness	15%
Participation and Involvement*	“X” Factor

* Your grade could rise or fall as much as a full letter based upon this.

Course Elements

I will employ traditional forms of grading and engagement-based grading. Engagement-based grading rewards, well, engagement and dedication building towards thoughtful completion of an assignment, whereas traditional grading assesses the perceived quality of the completed assignment. Engagement-based grading emphasizes process. Rewards (*i.e.*, good grades) come via engagement-based grading through the timely and thoughtful completion of milestones on the path towards a final product (and completion of that final product, itself). Successful completion of milestones involves meaningful engagement with my feedback.

Land-Use History Non-Specialist Article A literature-based article of 300 to 400 words written for a non-specialist reader describing how a facet of land-use history shapes the present-day ecology of a place (ideally, a place that is meaningful to you).

Article Presentation A 15-minute presentation of a primary research article (or a pair of articles).

Article Discussion Leadership of the greater share of a class period dedicated to a primary research article.

Grant Proposal A 600-word proposal seeking funds to conduct a scientific research project (with at least one figure, image, or illustration) written in the spirit of a National Science Foundation *Graduate Research Fellowship Proposal*. Will also involve peer proposal review.

Sustainability Session Presentation A presentation that draws upon scholarly literature to explore a topic falling under the term *sustainability* and involving plants.

Participation, Engagement & Attentiveness Instruction is in person. We build and nurture a learning community through our semester together. I expect attendance, engagement, and a readiness to participate during each class period. Please feel free to wear a face covering (*i.e.*, a mask) if you feel the need. I expect you to read your Bowdoin email at least daily. You may use an iPad in class for notetaking only. I am sensitive to the challenges brought on by in-person instruction after a significant block of online learning and to a return to forms of accountability that were at times relaxed (for good reason) during the peak of the pandemic. Please stay in touch with me if your schoolwork begins to overwhelm you.

A word on academic integrity The work you turn in should be yours (*i.e.*, from your own mind/hand). I expect you to write without the assistance of generative AI writing tools. Such AI tools will forever be a part of our lives. They have their place, but I prohibit their use in this course because I believe that doing so makes for a more meaningful learning experience for you. I will strictly uphold Bowdoin's Academic Honor Code.

A word on scheduling conflicts I expect you to discuss any foreseeable conflicts with course obligations well in advance (think/look ahead). I expect you to reach out to me as soon as reasonable if you fall ill or experience an unforeseeable conflict with a course obligation. *Do not come to class if you are ill.*

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Syllabus

<u>Date</u>	<u>Topic</u>
Aug. 30	Welcome; Logistics; Presentations; Land Use History and New England Ecology
Sept. 4	Land Use History and New England Ecology
Sept. 6	Leaf Energy Balance
Sept. 11	Leaf Energy Balance
Sept. 13	Agriculture, Broadly Construed [Izzy (P)]
Sept. 18	Agriculture, Broadly Construed [Liam T (P), Zelia (L)]
Sept. 20	Agriculture, Broadly Construed [John (P), Liam CJ (L)]
Sept. 25	Urban Ecology [Tori (P), Kelvin (L)]
Sept. 27	<i>No Class (Barry's illness)</i>
Oct. 2	Grant Proposals
Oct. 4	Urban Ecology [Oscar (P), Jonah (L)]
Oct. 9	<i>Fall Break</i>
Oct. 11	Aquatic Plants [Neena (P), Ada (L)]
Oct. 16	Alpine/Treeline [Kelsey (P), Oscar (L)]
Oct. 18	Alpine/Treeline [Liam CJ (P), Ellie (L)]
Oct. 23	Aquatic Plants [Eleina (P), Nicky (L)]
Oct. 25	Plant-Fungi Interactions [Ayanna & Neena]
Oct. 30	Plant-Fungi Interactions [Kelvin & Kelsey]
Nov. 1	Plant-Fungi Interactions [Liam T & Eleina]
Nov. 6	Drought-Driven Mortality [Ada]
Nov. 8	Drought-Driven Mortality [Nicky & Tori]
Nov. 13	Volatile Signaling [Zelia & Izzy]
Nov. 15	Volatile Signaling [Jonah & John]
Nov. 20	Dendroecology [Ellie & Ayanna]
Nov. 22	<i>No Class</i>
Nov. 27	Gender equity (and other forms of equity) in the field sciences
Nov. 29	Sustainability Sessions [Kelvin, Neena, Kelsey, Tori, Zelia]
Dec. 4	Sustainability Sessions [Eleina, Oscar, Ada, Jonah, John]
Dec. 6	Sustainability Sessions [Nicky, Liam, Ellie, Ayanna, Liam, Izzy]

In Advance of Each Opportunity to Direct Class

In advance of Meeting #1 – Schedule Meeting #1. Reflect on topic, survey literature, email me to exchange ideas on articles/focus areas. Share (by email) a few potential articles on which to focus.

Meeting #1 – Discuss interest in topic/focus area. Discuss proposed articles and settle upon an article to discuss and share with classmates. Schedule Meeting #2.

In advance of Meeting #2 – Read chosen article carefully. Read necessary supporting literature. Note questions/observations/insights/*etc.* that you may have. Outline you plan for presenting or leading discussion.

Meeting #2 – Discuss article and your questions/observations/insights/*etc.* Discuss outline. Schedule Meeting #3.

In advance of Meeting #3 – Reflect on Meeting #2. Further educate yourself on focus area. Implement agreed upon changes to plan for class. Share Powerpoint (if applicable).

Meeting #3 – Discuss final plans for class period and discuss any unresolved questions about article/focus area. If needed/desired, schedule Meeting #4.