Syllabus

Green Works ED 136/ENVS 136 - Spring 2024

Monday-Friday 3:00-4:50 – ED 4219

Instructor: Dr. Darby Feldwinn
e-mail: feldwinn@chem.ucsb.edu
Office: CHEM 1105 or ED 3260
Office Hours: Wednesday 3:00 - 4:00 pm and Friday 9:15-10:15 (Chem 1105) or by appointment
Phone: (805) 893-2127
Website: people.chem.ucsb.edu/feldwinn/darby/greenworks/index.html

TA: Ali Muller
e-mail: almuller@ucsb.edu
Office: ED 2238
Office Hours: Monday 2:00 – 3:00 pm

Important announcements will be emailed to you via Canvas.

Course Description

In recent years, we have seen a surge in world interest in energy efficiency and 'green' technologies. There is often public discussion on these green technologies and what impact they may have on society. This course will explore green technologies including energy sources, lighting, solar, green buildings, alternative/electric vehicles, and batteries. We will cover not only the scientific side of these technologies, but also explore the connections with history, culture, and politics, addressing such questions as "How do we define a 'green' technology?," "Can sustainable development be achieved solely through technological advances?" and "What are the broader impacts of personal technology choices?"

Required Text and Materials:

1) *Ecotopia: The Notebooks and Reports of William Weston* by Ernest Callenbach (available in UCSB bookstore).
2) All other course readings are available on the course website in pdf format.

DSP

If you need disability-related accommodations in this class or have any questions please contact DSP: dsp.sa.ucsb.edu/. If they cannot help you or you have any other questions feel free to email me.

Student Conduct

I will not tolerate cheating in this class and I will report all cheating to the student-faculty conduct committee. Feel free to view UCSB standards of student conduct: sa.ucsb.edu/regulations/student-conduct-code/student-conduct-code.

Grading

Attendance/Participation (19 @ 10 points a day)	(190 pts	20%)
Lab Reports (4 @ 50 points each)	(200 pts	21%)
Mini-Lab Reports (2 @ 20 points each)	(40 pts	4%)
Company Presentation	(100 pts	10%)
Ecotopia Paper	(100 pts	10%)
Debate /Final Quiz	(200 pts	21%)
Quizzes (4 @ 35 points each)	(140 pts	14%)

- Lowest quiz score will be dropped

All grades will be posted on Canvas.

All assignments are due at the beginning of class on the due date. If you are absent the day an assignment is due you must email the assignment to Darby by the beginning of class or it will be considered late. 10% of the points will be deducted for each day the assignment is late. No assignments will be accepted that are 4 or more days late. There will be no curve in the course. Please save all graded and returned material for your records.

Attendance/Participation

10 attendance/participation points are given per lecture.

- 3 points will be given for showing up (1 point will be deducted if you are late, 2 points if you are more than 15 minutes late or leave early).
- 3 points will be given for reading checks. A major component of the class is classroom discussions of the readings. To improve the quality of these discussions it is important that while you're reading, you record your questions, thoughts, agreement/disagreement with the author, or other items that you would like to bring up. You should aim for at least 10 sentences/topics.
- 4 participation points are given for participating in classroom discussions.
- On days with guest speakers, participation points will be given for asking the speaker a question.

Company Presentation

As a group you will pick a company that sells or is developing a green technology that will be or is available to the public. Your group will research the company and present your finding to the rest of the class. This is a great opportunity for you to learn about current and emerging green technologies. Details of this assignment will be given closer to the due date.

Ecotopia Paper

For the term paper, you will be given a choice of 3 topics relating the book *Ecotopia* to other topics studied in class, and you will be expected to write a 3-5 page term paper on one of these topics. Details of this assignment will be given closer to the due date.

Debate/Final Quiz

Instead of a final exam you will have a debate and a final quiz. For the debate the class will be divided into three group and students will participate in one debate. Groups will pick one of three topics randomly and find facts to support and oppose the statement. At the time of the debate, groups will randomly be assigned a supporting or opposing position. In addition, a quiz will be given on the day of the debate that covers all the topics in the class. This will be worth 100 of the 200 points.

Important Dates

Last day to add a class:	4/19/24
Last day to drop:	4/26/24
Last day to change grading option:	6/7/24

Monday	Friday
Apr. 1 Lecture: Sustainability and Energy	Apr. 5 Lab: Energy Choices for Cities
Apr. 8 Lecture: Energy Mini-Lab: Energy Mini-Presentations: Energy	Apr. 12 Mini-Presentations: Energy Lecture: Lighting
Apr. 15 Lecture: Lighting Quiz: Energy Lecture: Global Warming	Apr. 19 Lab: Exploring LEDs
Apr. 22 Guest Speaker: Dr. John Bowers (Unite to Light) Lecture: Lighting	Apr. 26 Lecture: Lighting Lecture: Global Warming
Apr. 29 Lecture: Solar Mini-Lab: Solar	May 3 Lab: Exploring Solar Cells
May 6 Company Presentations Quiz: Lighting and Global Warming	May 10 Solar Cell Lab Discussion Handout: Paper Assignment
May 13 Company Presentations Lecture: Green Building Quiz: Solar	May 17 Handout: Debate Assignment Ecotopia Discussion Lecture: Green Building
May 20 Lecture: Green Building	May 24 Mini-Presentation: Green Building Lecture: Cars/Batteries
May 29 **Holiday**	May 31 Lecture: Cars/Batteries Quiz: Green Building
Jun. 3 Lab: Battery	Jun. 7 Lecture: Greenwashing Quiz: Cars/Batteries
Final Debate Friday Jun. 14, 4:00-7:00 pm, ED 4219	