



UC SANTA BARBARA  
Bren School of Environmental  
Science & Management

Creating Value through Environmental Solutions  
ESM 231, Fall 2023

Class: M 12:30-1:45 pm  
BH 1510

Instructor: Emily Cotter  
Office: BH 3406  
Office Hours: M 9:00-10:00 am, T 12:00-1:00 pm and by appointment  
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#### Course Description

ESM 231 is designed for students to gain experience integrating corporate ESG or sustainability factors into strategy and operational decisions, in preparation for working on ESG, innovation, product, or sustainability teams. In this practicum, students explore environmental challenges faced by a specific company and identify opportunities to improve environmental impact through business model innovation. Working on a team with an industry advisor, students evaluate the financial potential, expected social/environmental impact and innovation risks of their ideas. This course offers practical application of theory and tools from ESM 281 and TMP 240.

#### Course Objectives

- Gain practical experience through an "Innovation Journey," exploring new business ideas and developing a portfolio map to visualize and analyze the new ideas being explored.
- Develop analytical and critical thinking skills through the process of identifying and defining opportunities to integrate ESG/sustainability factors into strategy.
- Gain experience communicating how ESG or sustainability opportunities create value.

#### Course Software

Box – File Sharing Service

Canvas – Learning Management System

Google Drive – File Storage and Synchronization Service

Zoom – Online Conference System

Slack – Messaging Application

Students should register for an account with Slack and join the **esm231f23** workspace. See Canvas for the invitation link.

#### Required Reading

Harvard Business Publishing Coursepack

Cases are listed in the schedule below. See course entitled "Creating Value through Environmental Solutions (ESM 231, F23)" on Harvard Business Publishing site at:

<https://hbsp.harvard.edu/import/1102214>

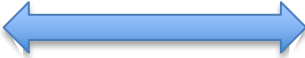
All the readings are listed under the Harvard course entitled "Creating Value through Environmental Solutions (ESM 231, F23)." Each Harvard reading costs \$4.25-7.95. The total approximate cost for the coursepack is \$34.00 (paid directly to Harvard Business Publishing).

All other required reading will be made available via download on Canvas.

**Optional Reading**

The Invincible Company  
 Alexander Osterwalder, Yves Pigneur, Fred Etienne and Alan Smith  
<https://www.strategyzer.com/books/the-invincible-company>

**Course Assessment**

Assessment		Individual Contribution		Project/Team Contribution
Attendance and Participation <ul style="list-style-type: none"> <li>• Class Attendance</li> <li>• In-Class Discussions</li> <li>• In-Class Presentations</li> </ul>		300 points (15%)		
Innovation Journey Project:				
Student Profile		100 points (5%)		
Team Formation Post				100 points (5%)
Sprint 1	Interview Summaries		200 points (10%)	
	Progress Report			100 points (5%)
	Sprint Presentation			200 points (10%)
Sprint 2	Interview Summaries		200 points (10%)	
	Progress Report			200 points (10%)
	Final Presentation			400 points (20%)
Final Portfolio Map				200 points (10%)
TOTAL		400 points (20%)	400 points (20%)	1,200 points (60%)

GRAND TOTAL 2,000 points (100%)

**Attendance and Participation**

Students are expected to attend every class. Attendance and participation will account for 15% of your grade (max. 300 points). Participation is evaluated in several ways. Obviously, participation is correlated with attendance. It is impossible to earn participation points if a student is not in class. Students remain responsible for submitting work due even if absent. Students should e-mail the instructor prior to any missed class. Students remain responsible for the material covered and assignments given during an absence. Attendance at all class sessions is critical to the learning process and the participation component of the course. Entrepreneurship is a collaborative and interactive process. Entrepreneurs find

opportunities, adapt, and improve themselves by listening and learning from others. Please come to class prepared to participate in the day's activities.

The deadline is at the beginning of class (i.e., 12:30 pm) on the due date listed for each assignment, unless otherwise instructed. Assignments submitted after the deadline but within 24 hours will lose 5% of the total points; after that, an additional 5% for each day that the assignment is late.

### **Innovation Journey Project**

Working on an Innovation Journey team, students will choose a specific company and industry advisor. Teams will work collaboratively to identify the company's biggest environmental challenges or material ESG issues, explore new business ideas, and develop a portfolio map to visualize and analyze the new ideas being explored (at least four ideas). Discovery Teams should be comprised of three to six people. Teams are encouraged to select a Project Manager who will be responsible for helping the team perform at its highest level. This involves removing any impediments to progress, facilitating meetings, and making sure the team is organized and working efficiently during each sprint. Each team will have a private channel on Slack for communication and collaboration.

The Team Formation Deadline is 12:30 PM on Mon 10/16/23.

During the quarter, students will conduct research in two 3-week long "sprints," as follows:

	<u>Sprint Period</u>	<u>Sprint Length</u>	<u>Presentation Date</u>
Sprint 1:	10/16/23 to 11/5/23	21 days	11/6/23
Sprint 2:	11/6/23 to 11/27/23	21 days	12/4/23*

*\*The Innovation Journey Project Final Presentation will be given to a panel of business leaders, innovators, and investors at the end of Fall Quarter.*

The goal of these sprints is to "get out of the building" and talk to industry experts or potential customers face-to-face (or via Zoom). Students should set milestones for each sprint (e.g., interview 5 industry experts and 5 potential customers during Sprint 1). During each sprint, teams should aim to interview at least 10-15 academic experts, industry experts and/or potential customers. The required minimum for each student will be 3 interviews per sprint.

Students will also gather secondary research to analyze the environmental problems/ESG issues, environmental policy and existing solutions. Additionally, teams will research and analyze the external environment to provide supporting context for the business ideas.

On each presentation day, students will report what they learned through research during the last sprint. Students will also share any new research or analysis that supports development of the team's Portfolio Map.

### **Description of Course Assignments**

All assignments will be submitted on Canvas, unless stated otherwise.

### Student Profile

The purpose of a Student Profile is to provide the instructor and your classmates with some insight into your background and to help in the formation of compatible project teams. Note: Your responses will be shared with the entire class. You will create a post in **#profiles** within the **esm231f23** workspace on Slack. See "Instructions for Profile Post" in **#profiles**.

Your Student Profile must be completed by 5:00 PM on Fri 10/6/23. The Student Profile will account for 5% of your grade (max. 100 points).

### Team Formation Post

On the Team Formation deadline, each team will create a "Team Formation Post" in Slack. The post should provide the team's chosen company name, industry advisor, and the name of each team member. In a brief paragraph, explain why the team came together and address at least one of the following questions:

- Is there a particular environmental challenge or ESG issue that the team wants to research?
- Is there a particular industry challenge that interests all the team members?
- Is there a trend in a specific industry that may represent an opportunity for the chosen company?
- Has the team identified a potential beneficiary/customer/user, based on observations of a pain point or problem to be solved, that the company should target with a new business model?
- Is there an observation from prior work experience, internships, academic research, or Master's Project work that has prompted the team's company choice and/or research direction?

The Team Formation Post for must be submitted in **#teams** within the **esm231f23** workspace on Slack by on Mon 10/16/23. This Team Formation Post will account for 5% of your grade (max. 100 points). These points will be the same for each team member.

### Interview Summaries

Students will demonstrate their analytical skills and their ability to perform qualitative research through interviews with academic experts, industry experts or potential customers. Each student is required to participate in at least 3 interviews per sprint. You may have more than one team member participate in an interview and work together on the interview summary. However, each team is required to have a minimum number of interviews per sprint, equal to 3 interviews per team member. For example, a team of 4 students must conduct a minimum of 12 interviews during a given sprint.

An interview summary should be submitted for each interview conducted. It is a brief report of the key insights from an interview, not a full interview transcript (e.g., transcribed interview from Zoom). Be sure to list all students who participated as interviewees. Examples will be posted on Canvas.

Interview Summaries will be submitted by students on Canvas. The Instructor will create a shared Box folder for all Interview Summaries, categorized by industry or research area.

Your interview summaries for Sprint 1 must be completed by 12:30 PM on Mon 11/6/23. These Interview Summaries will account for 10% of your grade (max. 200 points).

Your interview summaries for Sprint 2 must be completed by 12:30 PM on Mon 11/27/23. These Interview Summaries will account for 10% of your grade (max. 200 points).

### Progress Reports

At the end of each sprint, a Progress Report will be submitted by each team/project. The Progress Report will state the research focus and goals for the reported sprint, then summarize what was learned through research and the team's key takeaways. The Progress Report should include an analysis of any new or abandoned ideas on the team's Portfolio Map.

A progress report for Sprint 1 must be completed by 12:30 PM on Mon 11/6/23. This Progress Report will account for 5% of your grade (max. 100 points). These points will be the same for each team member.

A progress report for Sprint 2 must be completed by 12:30 PM on Mon 11/27/23. This Progress Report will account for 10% of your grade (max. 200 points). These points will be the same for each team member.

### Presentations

Each team will give one Sprint Presentation in class on Mon 11/6/23 and one Final Presentation to an expert panel on Mon 12/4/23. The Final Presentation will be judged by a panel of experts (business leaders, innovators, and investors). Specific guidelines for the Sprint Presentation and Final Presentation will be posted on Canvas.

A soft copy of the Sprint Presentation must be uploaded onto Canvas by 12:30 PM on Mon 11/6/23. The Sprint Presentation will account for 10% of your grade (max. 200 points). These points will be the same for each team member.

A soft copy of the Final Presentation must be uploaded onto Canvas by 11:00 AM on Mon 12/4/23. The Final Presentation will account for 20% of your grade (max. 400 points). These points will be the same for each team member.

Please use the following format for submission of your team's presentations:

Sprint Presentation\_(Team Name)

Final Presentation\_(Team Name)

### Final Portfolio Map

At the end of this course, each team will submit a Final Portfolio Map, which may incorporate any feedback received from the panel of experts during the Final Presentation. A written summary of each idea will be submitted with the Final Portfolio Map, explaining the position of each idea on the map. Specific guidelines for the Final Portfolio Map will be posted on Canvas.

A Final Portfolio Map must be completed by 5:00 PM on Mon 12/11/23. This Final Portfolio Map will account for 10% of your grade (max. 200 points). These points will be the same for each team member.