UC **SANTA BARBARA**
Bren School of Environmental Science & Management

Business and the Environment
ESM 210, Fall 2023

Class: T/Th: 9:30-10:45 am (BH 1414)

Instructors:
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Course Description
With the rise of Environmental, Social, and Governance (ESG) investing, and increasing market pressures for corporate responsibility and transparency, more companies than ever before are interested in innovation that improves sustainability. Students should learn how businesses can become more sustainable by finding opportunities in compliance, increasing efficiencies in the value chain, and designing sustainable products and services. Such strategies may involve cross-sector collaborations (i.e., nonprofit, government, philanthropic, and business sector alliances) that bring together diverse perspectives and shared resources to jointly solve environmental problems and achieve a shared goal. Understanding the business perspective, and the tools available to organizations to assess, communicate, and improve sustainability, is important for Bren MESM graduates to become effective leaders within industries or working across sectors, given the increasing complexity of today's environmental problems.

This course is comprised of lectures to cover concepts and a class project for students to search and discover opportunities for sustainable innovation, using a human-centered approach. Working on project teams, students will gather research on environmental problems, industry/sector dynamics, and human context, then collaborate on ideation. Students are encouraged to use their research to start developing Master's Group Project and/or Eco-E Project proposals. In parallel, students will learn important tools for understanding, communicating, and improving the sustainability impacts of organizations, including ESG reporting, sustainability certifications, life-cycle assessment, sustainability target setting, and more. Discussion sessions will go over business cases and readings that illustrate key concepts and will be used for workshops that support the team project. Additionally, the course will include several discussion

panels with business leaders, eco-entrepreneurs, impact investors and social innovators to give students insights into how course topics and cross-sector collaborations are implemented in real-world settings.

This syllabus provides a brief summary of the course, assignments and policies. Consult the course Canvas webpage for more detailed information.

Announcements
From time to time, we will need to send an email to everyone in class. Announcements and course materials are available through Canvas.

Assignments and Grading
All assignments are due on the date shown on Canvas. All written assignments must be posted on the Canvas course webpage.

Assignment		Individual Contribution	Team Contribution
Memos: 2 in Total		600 points (30%)	
Attendance and Participation		300 points (15%)	
Financial Analysis + Memo			200 points (10%)
Discovery Team:			
Sprint 1	Interview Summaries		100 points (5%)
	Team Formation Post		50 points (2.5%)
	Progress Report		150 points (7.5%)
	Sprint Presentation		100 points (5%)
Sprint 2	Interview Summaries		100 points (5%)
	Team Formation Post		50 points (2.5%)
	Progress Report		150 points (7.5%)
Final Presentation			200 points (10%)
TOTAL		900 points (45%)	1,100 points (55%)

2,000 points (100%)

Instructions for these assignments are posted on Canvas and will be discussed in class.

Attendance and Participation:
- Discussion section: Come to discussion sections prepared to discuss the assigned readings/case studies. This means having prepared an analysis in response to discussion section questions posted on Canvas. You can bring written notes.
- Class participation: Students should be prepared based on the readings, assignments and questions posted on Canvas. Instructors will randomly pick students to answer these questions.
- Discussion panels: Students should be prepared based on the speaker bios posted on Canvas.
- Discovery Team participation: At the beginning of the quarter, you will complete a Student Profile Survey to provide the instructors, teaching assistants, and your classmates with some insight into your background and to help in the formation of compatible discovery teams. Your individual contribution to the Discovery Team on which you participate will be evaluated by your teammates. An evaluation form will be completed during the last week of class to provide these peer evaluations.
- Discovery Team presentations: All members of the team must be in attendance. Every team member must present either the Sprint presentation or Final presentation; teams should discuss in advance who will present at each presentation. It is recommended that no more than three team members present at each presentation, since speaker transitions are disruptive and generally reduce the effectiveness of the presentation, especially when there is limited time. The entire team will participate in answering questions, as appropriate.

Discovery Teams:
Students will work collaboratively on discovery research, generating ideas and analyzing potential opportunities for innovation. Discovery Teams will be comprised of five to six students and formed within Discussion Sections.

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.

During the quarter, teams will conduct discovery research and analyze results during two three-week long "sprints," as follows:

	Sprint Period	Progress Report	Presentation
Sprint 1:	10/16/23 to 11/3/23	11/7/22	11/6/23, 11/7/23 or 11/8/23
Sprint 2:	11/6/23 to 11/24/23	11/28/23	11/28/23 or 12/5/23*

The Final Presentation will be given to a judging panel comprised of local business leaders, entrepreneurs, impact investors and social innovators.

The goal of these sprints is to "get out of the building" and talk to academic experts, industry experts, and potential beneficiaries, customers, or users face-to-face (in-person or via Zoom). Teams should set milestones for each sprint (e.g., interview 5 industry experts and 5 potential customers during Sprint 1), with a goal of 15-20 interviews per sprint. The required minimum for each team will be 3 interviews for every team member per sprint. For example, a team of 5 students will be required to conduct at least 15 interviews during a given sprint or 30 interviews total for the project. Interviews are defined as qualitative, in-depth interviews (not online surveys using closed-ended questions).

Team Formation Posts
At the beginning of each sprint, teams will create "Team Formation" posts on Canvas. The post should provide the team's working name and the name of each team member, followed by the team's research focus. In a brief paragraph, explain why the team came together and address at least one of the following questions:
- Which environmental problem does the team want to help solve, and why?
- Is there a particular industry/sector that interests all the team members?
- Is there a trend in a specific industry/sector that may represent an opportunity?
- Is there a particular company/organization that interests the team?
- Is there a particular type of innovation opportunity that interests the team?
- Is there a particular opportunity for cross-collaboration that interests the team?
- Has the team identified a potential beneficiary, customer, or user, based on observations of a pain point or problem to be solved?

Interview Summaries
Students will demonstrate their analytical skills, observation skills, and their ability to synthesize data through summarizing interviews with academic experts, industry experts and potential beneficiaries, customers, or users. Each student is required to participate in at least 3 interviews per sprint or 6 interviews total per project. 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, equal to 3 interviews for every team member per 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.

Team Progress Reports

At the end of each sprint, teams will submit Progress Reports. Each team will report what they learned through discovery research during the sprint, which may include: (1) any new insights about an environmental problem; (2) any new insights about a specific industry or sector; (3) any new insights about a specific company or organization; (4) any new innovation opportunities hypothesized; (5) any potential ways to create value across sectors or multiple stakeholders; or (6) any beneficiary, customer, or user needs or pain points identified. Based on the team's key takeaways, any new ideas generated or any resulting pivots should be shared, along with the team's future direction. Teams will be evaluated based on the quality of the research/analysis performed, not the volume of ideas generated through this course. However, each team is encouraged to generate and analyze more than one idea during the quarter, guided by discovery research. Examples will be posted on Canvas.

Team Presentations

Each team will give one Sprint Presentation during their Discussion Section on 11/6/23, 11/7/23 or 11/8/23 and one Final Presentation to a judging panel on either 11/28/23 or 12/5/23. Specific guidelines and examples for the Sprint Presentation and Final Presentation will be posted on Canvas.

Policies

Each student is responsible for his or her own work within the team. Any form of cheating or plagiarism will not be tolerated in this class. Refer to the Student Handbook for guidelines on cheating and plagiarism. These rules will be observed and enforced in this course. Cheating or plagiarism on any paper or assignment will result in a score of zero, with the possibility of referral to the Office of Student Conduct.

If you must miss a due date for an assignment, the instructors will consider your excuse. Your case will be helped if you have supporting evidence (i.e., doctor's notice). If you will miss a presentation, you need to let the instructors know as soon as you can. If we are not in our offices, you can email, call, or you can leave a note in one of our Bren mailboxes. If due to some extreme emergency you cannot let us know in advance that you will miss an assignment deadline, we will consider your excuse. If we find your excuse suitable, we will make arrangements for an extension. Do not assume that we will automatically grant extensions.

If you think an assignment has been mis-graded, you can request that it be re-graded. Students requesting a re-grade must submit a one paragraph explanation of why a different grade is justified. Students seeking a re-grade should wait at least one day, but not more than a week, after receiving their grade before submitting their explanation. If we find that a mistake has been made, we will make the appropriate changes to your grade. There are no opportunities for extra credit in this class. Students must pass all assignments in order to pass the class.

All course materials (including class lectures and discussions, handouts, web materials) and the intellectual content of the course itself are protected by United States Federal Copyright Law, the California Civil Code. The UC Policy 102.23 expressly prohibits students (and all other persons) from recording lectures or discussions and from distributing or selling lectures notes and all other course materials without the prior written permission of the instructor (See http://policy.ucop.edu/doc/2710530/PACAOS-100). Students are permitted to make notes solely for their own private educational use. Exceptions to accommodate students with disabilities may be granted with appropriate documentation. To be clear, in this class students are forbidden from completing study guides and selling them to any person or organization.

As part of the educational process, individual students will bring a variety of ideas and information to a class project for discussion, review, and analysis. Any ideas or information introduced to a class project by an individual student will be available for use by any student team member, both during or after the class project, for any purpose, unless it is Prior IP. Prior IP is intellectual property that is developed by a student before the class project began and that is both recognized and protectable under United States copyright, patent or trademark laws. Any Prior IP introduced by a student during the course of a class

project may be used by all student team members in the course of the class project for academic purposes only.

To avoid misunderstandings and confusion, if a student wants to contribute Prior IP to a class project, that student should clearly identify it as Prior IP to the other student team members and notify the instructor that the Prior IP is being contributed to the class project for academic use in the class project.