Coral Reef Conservation and Management
ENVS 4940 Spring 2022
Syllabus

Basic Information

Units: 3
Lecture and Discussion: Tuesday and Thursday 1:00 – 2:15 PM
Location: Riley-Robb Hall B15
Remote Participation:
- Zoom link
- Meeting ID: 985 3978 0404
- Passcode: 983836

Contact Information

Professor: Dr. Michael Mehta Webster
Contact: mmw253@cornell.edu
Office Hours: Thursday 11:00 AM – 12:00 PM or by appointment
Office: Fernow 201

Course Description

This class is designed to explore the conservation and management of coral reef ecosystems and will include group projects to develop components of a management plan for the Bay Islands National Marine Park in Honduras. The term will begin with a series of lectures, but then quickly transition to student led projects. Students will work in teams to design and manage a series of class discussions and interviews of external stakeholders. In parallel, students will design and execute a workplan for researching, drafting, and presenting components of a management plan. Along the way, students will be required to conduct independent research, manage group projects, synthesize their findings, and communicate results to peers and external experts. The course will culminate with the completion of selected sections of the management plan for the Bay Islands National Marine Park and presentations to classmates and other experts.

Objectives

During this course, students will:
- Gain a basic understanding of the threats to coral reefs, management options, and stakeholder groups.
- Work effectively as a team, in collaboration with peers, outside experts, and instructors.
- Design and manage team projects with clear timelines, interims steps, and individual roles to achieve an overarching goal.
- Communicate their findings to expert audiences in written reports and oral presentations.
- Keep team members, classmates, and professor up-to-date about progress and challenges throughout the term.
- Adapt to challenges and changing conditions while maintaining progress toward goals.
- Conduct extensive research and summarize and communicate findings.
- Plan and execute interviews of external stakeholders to foster class-wide learning.

- Brief the class and hold discussions on key issues related to coral reef conservation.

Course Structure

This course will be based largely on two major team projects.

Mini course: Students will be divided into 4 teams, each of which will be responsible for designing an executing a mini course on a topic related to coral reef conservation.   The mini courses will take place over 3-4 class periods during which team members will be responsible for the entire class's learning. The topics for the mini course are:

1. Ecosystem Management
2. Fishing and MPAs
3. Coastal Pollution and Wastewater Treatment
4. Driving Social Change

Each team will be tasked with the following:

- Developing and following a workplan that includes
    - A description of the steps, resources, and timeline to complete the mini course assignment
    - An assignment of roles and responsibilities that is equitable across the team
- Creating a briefing on their topic for the entire class, which will be based on their research. The briefing may include lecture-type slides and class discussions to cover content such as:
    - What is the global context for this topic area, including key research and theory?
    - What is the situation in the Bay Islands, including key management actions, actors, and stakeholders?
    - Are there key reading that should be read by the entire class?
    - What can we likely learn from interviews with key actors on this topic?
- Conducting 2-3 in-class interviews with stakeholders and experts. Interviewees will be identified by the professor, while student responsibilities will be to
    - Develop a plan for the interview, including a list of questions, with the interviewee
    - Arrange any logistics
    - Conduct the interviews
    - Hold a class discussion after the interview

Management plan: In partnership with managers in Honduras, students in this course will be drafting sections of a revised management plan for the Bay Islands National Marine Park in Honduras. The details of this project are still being discussed with partners in Honduras and a full description will be shared with the class as soon as those details are finalized. This project is intended to occupy a significant amount of the work this term and focus on researching, analyzing, and communicating sections of a document that will be used for management for years to come.

How to Take this Class

- This class is based heavily on group projects which involve reading, critical thinking, writing, presentation, and discussion.
- Be flexible - will have changes to calendar, potentially people moving across teams, and plenty of new things to try as the semester progresses. Please be open to these changes and adapt to them as they occur.
- Students will use their Cornell email and Canvas accounts to complete all tasks and communications for this course
- Students should feel free to openly communicate with the professor if they experience any confusion regarding the course content
- Outside of class, students should reach out to the professor via email or during office hours if they have any questions about the course.
- If possible, bring devices, such as laptop computers, to class to use during frequent working sessions and team meetings.

Grading

Grade breakdown	
Subject	**Percent of Course Grade**
Mini Courses	35
Management Plan Elements	55
Participation	10
Total	**100**

The late policy for this course is a 10% deduction for each day an assignment is late up to 3 days. No credit will be given for work after it is 3 days late.

Grading Scale	
Percent of Total Points	**Grade**
97-100	A+
93-96.9	A
90-92.9	A-
87-89.9	B+
83-86.9	B
80-82.9	B-
77-79.9	C+
73-76.9	C
70-72.9	C-
67-69.9	D+
63-66.9	D
60-62.9	D-
Below 60	F

For students who take the course satisfactory/fail (S/U), the cutoffs are: S for C- or above, U for D+, D, D- or F.

Class participation

Attendance in class is mandatory and all students are expected to regularly contribute during class and within their teams. Participation in class and discussion is part of your course grade and contributes to your and your peers' learning.

Course Schedule

The following course schedule is approximate. Updates and additional detail will be added frequently during the course.

Date	Topic
25-Jan	Class Overview
27-Jan	Introduction to mini-course projects / Basics of coral reefs
1-Feb	Basics of coral reefs
3-Feb	Basics of coral reefs
8-Feb	Basics of coral reefs
10-Feb	Mini courses / working sessions
15-Feb	Mini courses / working sessions
17-Feb	Mini courses / working sessions
22-Feb	Mini courses / working sessions
24-Feb	No class / work on team projects
1-Mar	Feb Break
3-Mar	Mini courses / working sessions
8-Mar	Mini courses / working sessions
10-Mar	Mini courses / working sessions
15-Mar	Mini courses / working sessions
17-Mar	Mini courses / working sessions
22-Mar	Mini courses / working sessions
24-Mar	Mini courses / working sessions
29-Mar	Mini courses / working sessions
31-Mar	Mini courses / working sessions
5-Apr	Spring Break
7-Apr	Spring Break
12-Apr	No class / work on team projects
14-Apr	No class / work on team projects
19-Apr	Mini courses / working sessions
21-Apr	Mini courses / working sessions
26-Apr	Mini courses / working sessions
28-Apr	Mini courses / working sessions
3-May	Mini courses / working sessions
5-May	Research project presentations
10-May	Research project presentations
17-May	DNRE Seminar at 3:30 PM: presentation of research project findings

Course Policies

Inclusivity

This course aims create a welcoming, supportive, and tolerant environment for all students and respects the various forms of diversity that they bring, including differences related to race, gender, sexuality, class, nationality, geography, age, size, ability, etc. Towards this purpose, everyone is expected to be respectful of each other, actively listen, participate, ask relevant questions, and give balanced, specific, and constructive verbal and written feedback to each other. Our focus is on achieving the student learning outcomes.

Furthermore, Cornell University (as an institution), your Instructor and TAs are committed to full inclusion in education for all persons. Services and reasonable accommodations are available to persons with temporary and permanent disabilities, students with DACA or undocumented status, students facing mental health or other personal challenges, and students with other kinds of learning challenges. Please feel free to let your professor know if there are circumstances affecting your ability to participate in class. Some resources that might be of use include:

- Office of Student Disability Services: https://sds.cornell.edu
- Cornell Health CAPS (Counseling & Psychological Services): https://health.cornell.edu/services/counseling-psychiatry
- Undocumented/DACA Student support: See the list of campus resources at: https://dos.cornell.edu/undocumented-daca-support/undergraduate-admissions-fi

Academic integrity

Your submission of work for academic credit indicates that the work is your own. All outside assistance should be acknowledged and your academic position truthfully reported at all times. For additional details, please review Cornell's code of Academic Integrity: https://provost.cornell.edu/leadership/vp-undergrad-ed/academic-integrity/

Electronics use and recording

The use of electronic devices is encouraged in class as appropriate during working sessions and team meetings. However, use of electronics for other purposes, such as social media or conducting internet searches unrelated to class is not allowed.

Recording, either audio or video, is not allowed during class. Lecture slides will be posted to Canvas regularly for students to access following class. Posted lectures and other materials are only for student use as part of the course and may not be saved, reproduced, posted elsewhere, or shared.