This syllabus is a general representation of the course as previously offered and is subject to change.

BIOL 420 – Ocean Conservation and Sustainability

General Course Syllabus (as of January 2020)

About the Course:

Course Description: BIOL 420 is an interdisciplinary conservation course that takes a solutions-oriented approach to marine issues, drawing from natural sciences, social sciences, business, law, and communication. Students will explore how to address ocean issues wisely and well, looking at ways to relieve pressure on marine life wherever possible. Topics include: marine species of conservation concern, ecosystem resilience, management of fisheries (and other pressures such as habitat degradation (physical damage and pollution), invasive species, and climate change), community development, national regulations, international trade and global governance.

The course is open to students from diverse backgrounds interested in effecting change in the global situation. Students will be active in this course, contributing to decision-making and undertaking work that may be immediately deployed on the front lines of sustainability. Students should leave the course feeling empowered to speak for the ocean, and also with greater confidence to engage with a wide array of other environmental issues.

Course Format: Lectures and Tutorial (2h lectures per week and 3h tutorials per week)
Credits: 3
Prerequisites: Fourth-year standing.

Course Learning Outcomes:

By the end of this course, students will be able to:

- Explain the challenges facing the ocean, and the people who manage it.
- Integrate a diverse array of information to develop nuanced appreciation of issues in ocean sustainability.
- Identify diverse perspectives on sustainability issues in ways that will improve the effectiveness of personal contributions to environmental concerns.
- Turn critical concerns about conservation issues into constructive contributions to progress toward sustainability.
- Recognize good management practices in ocean sustainability and challenge received wisdom for long-established but unreliable practices.
- Propose, plan and take action for conservation and environmental issues.
- Deploy new skills in communication (including policy briefings and grant writing) in preparation for professional careers.

Textbooks and Additional Resources:

There is no required textbook for the course. Instead, assigned readings will consist of primary papers, “grey” or management literature, and news stories.

- Assigned readings can be accessed electronically through the UBC Library e-journal system or public domain.
- A list of readings for the course, organised by lecture, will be provided on the course website.
- Additional readings and materials will also be provided for information and interest.

Access course materials on the course website on Canvas (canvas.ubc.ca) and the course blogs site: https://blogs.ubc.ca/biol420ocean

Grading Scheme:

Assessments	**Weight**
Assignments (x 4, each 6%)	24%
Project 1 story and presentation	15%
Project 2 paper	20%
Project 2 policy briefing	6%
Final exam	30%
General contributions	5%

DETAILS ON ASSESSMENTS:

Assignments: Students will complete numerous short, focused analyses of particular topics, while developing technical skills. At the beginning of term, the class will discuss potential activities to ensure that they find the ensuing work to be valuable and interesting. Introductory training in the technical skills will be provided, with support from visiting experts for some material.

Term project:
Students will have two term projects. The first will focus on marine life in BC and the second on critical issues in marine conservation and sustainability. Both have multiple components – written and oral.

Project 1: Getting to know your Pacific Northwest marine species (15% of term mark, done individually)

1. Short proposal about one species in a storytelling form (participation marks only)
2. Presentation of a species point-of-view story

Project 2: Critical Issues in Marine Conservation and Sustainability (26% of term mark in total)

1. Present your project to the class (participation marks only, done in pairs)

2. Write a ≤ 3000 word report of publishable quality (20% of term mark, done in pairs)
3. Write a policy brief (6% of term mark, done individually)

Final exam: The exam will be in essay format, with a choice of questions. Students will be marked on content and delivery.

General contributions: students are expected to show engagement in lecture and tutorial activities.

Students must raise concerns about timing very early and discuss serious personal crises with the instructor as soon as possible. Late delivery of assignments will otherwise result in a distinct deduction of marks, with a loss of 10% per day or any portion thereof.

Schedule of Topics:

Connected themes will be emphasized in an array of technical topics and practical skills. The following is a list of the main themes that will be covered and integrated, (one or two per week), starting with species to ecosystem, then on to human community and various layers of interaction between people and the ocean.

Themes

- How to move beyond problem identification.
- How to have the confidence to take action.
- How to use interdisciplinarity in problem solving.
- How to reconcile values of species as wildlife and food.
- How to work at multiple geographic and political scales.
- How to achieve outputs, outcomes and impacts --- and to tell the difference among them.
- The importance of collaboration, co-operation, and inclusiveness

Topics covered

- getting to know the ocean
- threatened species tools
- ecosystem-based management
- fisheries regulation
- other human pressures
- marine protected areas
- alternative livelihoods
- community-based management
- gender equity
- subsidies and trade controls
- reliable governance
- international agreements
- risk analysis
- citizen science

Technical skills

- oral presentations
- written reports
- policy briefings
- grant writing
- conventional and social media

A sample schedule from 2019W2 is below: (***** indicates graded assignment**)**

Week	**Lecture**	**Tutorial**
1	1) Setting the scene 2) An introduction to marine life	Setting the stage, planning the course, communications
2	3) Ecological importance of the ocean (Guest lecture) 4) Social importance of the ocean	* Current news item: oral presentation
3	5) Economic importance of the ocean 6) Canadian ocean issues	Analysis of eco-labeling schemes (Guest lecture)
4	7) Pressures on the ocean 8) Status of marine species	Canadian ocean issues: expert groups *Blog on current issue due
5	9) Population and species recovery 10) Habitat and ecosystem recovery	Hot topics in ocean sustainability: debate
6	11) Taking action for recovery 12) Marine protected areas (MPAs)	**Project 1 presentations*
7	13) Exploring fisheries 14) Managing fisheries	Marine protected areas: role play
8	15) Community-based management (Guest lecture) 16) Women's roles in ocean conservation (UU fishing)	*Fisheries success stories (Guest)
9	17) Small scale economic change: livelihoods & microenterprise	FIELD TRIP to Steveston (all day) *Reflective report on Steveston field trip due
10	18) Large scale economic change: subsidies, incentives and more (Guest lecture) 19) Illegal fishing	Project 2 oral update presentation
11	20) Co-management and national governance 21) Regional and global agreements	FIELD TRIP to xʷməθkʷəy̓əm (Musqueam) *Project 2 paper due
12	22) Climate change (Guest lecture) 23) Ethical considerations	Policy and governance
13	24) Integrating the layers of the onion (CITES and seahorses)	*Project 2 policy brief due

University Policies:

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence.

UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom.

UBC provides appropriate accommodation for students with disabilities and for religious, spiritual and cultural observances.

UBC values academic honesty and students ae expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on the UBC Senate website.