

# Syllabus: ERS 321 - Coastal Social-Ecological Systems

## Territorial Acknowledgement

“We acknowledge that we live and work on the traditional territory of the Attawandaron (Neutral), Anishinaabeg, and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, the land promised to the Six Nations that includes ten kilometres on each side of the Grand River.”

## Keeping in Contact

### Announcements

We will be using the **Announcements** widget on the Course Home page during the term to communicate new or changing information regarding due dates, instructor absence, etc., as needed. Please check the announcements on a regular basis to ensure you don't miss any updates!

To ensure you are viewing the complete list of announcements, you may need to click Show All Announcements.

### Contact Information

Who and Why	Contact Details
<p><b>Instructors</b></p> <ul style="list-style-type: none"><li>• Course-related questions (e.g., course content, deadlines, assignments, etc.)</li><li>• Questions of a personal nature</li></ul>	<p><b>Please email your questions</b> about course content, course structure and assignments and questions of a personal nature directly to the teaching team:</p> <p>Dr. Derek Armitage (<a href="mailto:derek.armitage@uwaterloo.ca">derek.armitage@uwaterloo.ca</a>)</p> <p>Dr. Ana-Carolina Esteves Dias (<a href="mailto:ana.estevesdias@uwaterloo.ca">ana.estevesdias@uwaterloo.ca</a>)</p> <p>Teaching Assistant: Madu Galappththi (<a href="mailto:madu.galapththi@uwaterloo.ca">madu.galapththi@uwaterloo.ca</a>)</p>

Who and Why	Contact Details
<p><b>Technical Support</b></p> <ul style="list-style-type: none"> <li>• Technical problems with Waterloo LEARN</li> </ul>	<p><a href="mailto:learnhelp@uwaterloo.ca">learnhelp@uwaterloo.ca</a></p> <p>Include your full name, WatIAM user ID, student number, and course name and number.</p> <p>Technical support is available during regular business hours, Monday to Friday, 8:30 AM to 4:30 PM (Eastern Time).</p> <p><a href="#">LEARN Help Student Documentation</a></p>
<p><b>Student Resources</b></p>	<p><a href="#">Student Resources</a></p> <ul style="list-style-type: none"> <li>• Academic advice</li> <li>• Student success</li> <li>• WatCards</li> <li>• Library services and more</li> </ul>

## Course Description and Learning Outcomes

### Course Description

Approximately half the world's population lives within 60 km of a coast, and as a result, coastal spaces are some of the most threatened globally. Some of these threats and challenges include unchecked development and urbanization, tourism pressure, the loss of important coastal habitat (like sea grass beds, coral reefs, dune systems, and coastal forests), the introduction of invasive species, and the effects of climate change (e.g., sea level rise, storm intensity).

Understanding the relationships among coastal systems and people is also an important Canadian sustainability challenge, especially so because Canada has the longest stretch of coastline in the world. Much like water, energy, soils and wildlife, coasts are an important 'resource', and the livelihoods of millions of people in Canada and around the world are directly dependent on the ecosystem goods and services they provide.

### Course Objectives and Approach

The course will provide you with an opportunity to explore the relationships among people and the drivers of change that shape our coastal ecosystems. In doing so, we will consider coastal regions as linked systems of people and nature, and examine sustainability challenges and opportunities using an interdisciplinary perspective.

Course activities will involve a mix of lecture, discussion and assessment of coastal cases, both close to home (Ontario is a coastal province) and internationally. Case studies and assignments will emphasize current issues and drivers of change, as well as frameworks and approaches to understand and sustainably govern coastal systems. Guest speakers and multi-media (e.g., video) will be used to supplement course content.

At the end of this course, you should be able to:

- Understand the major challenges and drivers of coastal change (social and ecological) and the implications for management and governance;
- Consider and assess various applications (e.g., ecosystem-based management, marine protected areas, development of living shorelines, community conservation schemes) applied at local to national scales to deal with coastal change;
- Critically assess the assumptions underlying these applications, their limitations and the opportunities they provide for a transition to more social and ecologically sustainable coastal-marine contexts; and
- Apply an understanding of course material to coastal cases in Canada and internationally.

## **Readings and Resources**

### **Required Readings**

There is no required course text. However, required readings are listed in the course schedule, and they are accessible through the course LEARN site or via the UW Library. Readings will focus on selected approaches, concepts and tools that are conducive to coastal social-ecological research and practice, and in relation to the course projects you will undertake. The amount of material to read on a weekly basis is consistent with expectations for senior undergrad students in the program. The readings from other SERS courses are a valuable resource – please revisit and use them as appropriate.

## **Course Requirements**

Evaluation in this course is based on the following:

(1) a '**Coastal Needs Assessment**' which consists of three phases, including a) a systems identification (Phase I) (20%); b) interventions for coastal sustainability (Phase III) (30%); and c) stakeholder assessment and implementation strategy (25%).

(2) a **Photovoice** assignment to communicate and reflect on coasts as linked social-ecological systems (25%)

Details on these assignments are provided in the 'assignments rubrics' section.

## Course schedule and milestones

Week	Theme	Assignments
Jan 11	Introduction	
Jan 18	Key coastal systems (mangroves, estuaries, beaches and more)	
Jan 25	Coastal SES: Theories and Frameworks	Jan 29 - Needs Assessment – Phase I
Feb 1	Climate change, SLR and adaptation	
Feb 8	Blue economy, blue justice	Feb 12 – Photovoice Assignment
Feb 22	Coastal communities, livelihoods and wellbeing	
Mar 1	Coastal grabbing and conflict	Mar 5 - Needs Assessment – Phase II
Mar 8	Integrated coastal zone management and marine spatial planning	
Mar 16	Co-management and the coastal commons	
Mar 23	Coastal conservation, MPAs and MPA networks	
Mar 30	From vulnerability to viability	Apr 5 - (Needs Assessment – Phase III)

## Course and Department Policies

### Extension and Late Assignment Policies

Please note the following:

1. All assignments must be completed to receive a mark for the course;
2. Requests for extensions of any assignment must be done so in writing in advance of the assignment due date;
3. In the event of an illness, a supporting medical certificate completed by a physician may be required; and
4. Extensions may be granted for significant emergencies at the discretion of the Instructor.

## University Policies

**Academic Integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. The University's guiding principles on academic integrity can be found here: <http://uwaterloo.ca/academicintegrity>. ENV students are strongly encouraged to review the material provided by the university's Academic Integrity office specifically for students: <http://uwaterloo.ca/academicintegrity/Students/index.html>

Students are also expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. Students may also complete the following tutorial: <https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial>

When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. Within ENV, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties which may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71>. Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-7>

**Turnitin.com:** Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due

notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit alternate assignment.

**Intellectual Property:** Students should be aware that this course contains the intellectual property of their instructor(s), TA, and/or the University of Waterloo. Intellectual property includes items such as: Lecture content, spoken and written (and any audio/video recording thereof); Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides); Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor(s), TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository). Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

**Students with Disabilities:** AccessAbility Services, located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

**Mental Health and Wellbeing:** The University of Waterloo, the Faculty of Environment and our Departments/Schools consider students' wellbeing to be extremely important. We recognize that throughout the term students may face health challenges - physical and/or emotional. Please note that help is available. Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services <http://www.uwaterloo.ca/counselling-services> is an inclusive, non-judgmental,

and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more. We understand that these circumstances can be troubling, and you may need to speak with someone for emotional support. [Good2Talk](#) is a post-secondary student helpline based in Ontario, Canada that is available to all students.

**Religious Observances:** Students need to inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

**Unclaimed Assignments:** Unclaimed assignments will be retained until one month after term grades become official in Quest. After that time, they will be destroyed in compliance with UW's confidential shredding procedures.

**Communications with Instructors:** All communication with students must be through either the student's University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account they will be requested to resend the email using their personal University of Waterloo email account.

**Co-op Interviews and Class Attendance:** Co-op students are encouraged to try and choose interview time slots that result in the least amount of disruption to class schedules. When this is challenging, or not possible, a student may miss a portion of a class meeting for an interview. Instructors are asked for leniency in these situations; but, a co-op interview does not relieve the student of any requirements associated with that class meeting.

When a co-op interview conflicts with an in-class evaluation mechanism (e.g., test, quiz, presentation, critique), class attendance takes precedence and the onus is on the student to reschedule the interview. CECA provides an interview conflict procedure to manage these situations. Students will be required to provide copies of their interview schedules (they may be printed from WaterlooWorks) should there be a need to verify class absence due to co-op interviews.

## Coronavirus Information

### [Coronavirus Information for Students](#)

This resource provides updated information on COVID-19 and guidance for accommodations due to COVID-19.