

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: GEOG 257		Number of Credits: 3 Course credit policy (105)															
Course Full Title: Environment: Science and Communications Course Short Title: Environment: Science & Comm. <i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>																	
Faculty: Faculty of Science		Department: School of Land Use and Environmental Change															
Calendar Description: <p>Introduces students to the methods of scientific inquiry and the principles of effective communication in environmental science. Students will apply the scientific method to case studies of environmental issues to highlight challenges and possible solutions at local, regional, and national scales, while exploring the interface between science, politics, and popular perceptions. Students will also use research methods and digital tools to gather and share qualitative and quantitative data with various audiences, including stakeholder groups, other scientists, policy makers, and the general public.</p> <p>Note: A field trip outside of class time may be required. Please refer to the department website for scheduling information.</p> <p>Note: This course is offered as GEOG 257 and CMNS 257. Students may take only one of these for credit.</p>																	
Prerequisites (or NONE):		(One of CMNS 125, CMNS 175, or ENGL 105) and (GEOG 103 or any 100-level lab science course).															
Corequisites (if applicable, or NONE):																	
Pre/corequisites (if applicable, or NONE):																	
Antirequisite Courses <i>(Cannot be taken for additional credit.)</i> Former course code/number: Cross-listed with: CMNS 257 Dual-listed with: Equivalent course(s): GEOG 211 <i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>		Special Topics <i>(Double-click on boxes to select.)</i> This course is offered with different topics: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, topic will be recorded when offered.)</i>															
		Independent Study If offered as an Independent Study course, this course may be repeated for further credit: <i>(If yes, topic will be recorded.)</i> <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit															
		Transfer Credit Transfer credit already exists: <i>(See bctransferguide.ca.)</i> <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Submit outline for (re)articulation: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i>															
Typical Structure of Instructional Hours <table border="1"> <tr> <td>Lecture/seminar hours</td> <td>39</td> </tr> <tr> <td>Tutorials/workshops</td> <td></td> </tr> <tr> <td>Supervised laboratory hours</td> <td></td> </tr> <tr> <td>Experiential (field experience, practicum, internship, etc.)</td> <td>6</td> </tr> <tr> <td>Supervised online activities</td> <td></td> </tr> <tr> <td>Other contact hours:</td> <td></td> </tr> <tr> <td>Total hours</td> <td>45</td> </tr> </table>		Lecture/seminar hours	39	Tutorials/workshops		Supervised laboratory hours		Experiential (field experience, practicum, internship, etc.)	6	Supervised online activities		Other contact hours:		Total hours	45	Grading System <input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit	
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Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		Maximum enrolment (for information only): 36 Expected Frequency of Course Offerings: Twice each year <i>(Every semester, Fall only, annually, etc.)</i>															
Department / Program Head or Director: Jonathan Hughes		Date approved: October 2021															
Faculty Council approval		Date approved: November 5, 2021															
Undergraduate Education Committee (UEC) approval		Date of meeting: January 28, 2022															

Learning Outcomes:

Upon successful completion of this course, students will be able to:

1. Describe the science that underlies local, regional, and global environmental issues and challenges.
2. Work collaboratively to identify the possible solutions to environmental problems, and the barriers to their implementation.
3. Identify principles and practices of effective visual, oral, and written communication of scientific data and ideas for different audiences, including Indigenous communities and environmental advocacy groups.
4. Use digital tools and research methods to collect and disseminate qualitative and quantitative data.
5. Critique the use of quantitative data and cartographic representations in environmental science.
6. Work collaboratively to devise strategies for addressing and communicating environmental challenges.
7. Adapt written materials and presentations to inform both generalist and expert audiences on specific issues.

Prior Learning Assessment and Recognition (PLAR)

☒ Yes ☐ No, PLAR cannot be awarded for this course because

Typical Instructional Methods (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

Course format will typically include lectures delivered by instructors from Geography and Communications, discussion groups, student presentations, and field study. Case studies will support student-directed learning and teaching. There may be a mandatory local field trip that will support one or more case studies. All efforts are made to keep field trips during class time.

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Text(s) and Resource Materials (*If more space is required, download Supplemental Texts and Resource Materials form.*)

Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1. Hay, Iain, and Giles, Philip	Communicating in Geography and the Environmental Sciences	<input type="checkbox"/>	Oxford University Press.	2015
2. Berg, Linda, and Hager, Mary.	Visualizing Environmental Science	<input type="checkbox"/>	Wiley	2017
3. Northey, Margot, David B. Knight, and Diane Draper	Making Sense in Geography and Environmental Sciences. A Student's Guide to Research and Writing	<input type="checkbox"/>	Oxford University Press	2019

Required Additional Supplies and Materials (*Software, hardware, tools, specialized clothing, etc.*)

A field-trip fee may be required.

Typical Evaluation Methods and Weighting

Final exam:	%	Assignments:	65%	Field experience:	10%	Portfolio:	%
Midterm exam:	%	Project:	%	Practicum:	%	Other:	%
Quizzes/tests:	25%	Lab work:	%	Shop work:	%	Total:	100%

Details (if necessary):

1. Individual weekly quiz: 25%
2. Individual summary of assigned journal articles about the research project identified for the term: 5%
3. Individual report of field experience: 10%
4. Group research proposal: 10%
5. Group video including presentation at CityStudio: 15%
6. Group research paper: 15%
7. Group research poster including presentation in class: 20%

Typical Course Content and Topics

Topics will be rearranged based on the scheduled needs of the research topic for the term, and each week a chapter in the introductory environmental science text, will be matched with the approaches and issues associated with communicating those issues. For example:

1. Introduction to course and themes in environmental science and environmental communications
2. Science as a way of knowing; environmental history, economics, sustainability and human values
3. Risk analysis and environmental hazards
4. Decision-makers, media, stakeholders, and the science community
5. Ecosystems—functions and evolution
6. Human population change and the environment
7. Energy
8. Air and air pollution; global atmospheric changes
9. Water, water pollution, and freshwater resources
10. The ocean and global fisheries
11. Soils, minerals, and land resources
12. Agriculture and food resources
13. Solid and hazardous wastes; course conclusion