



ENVS*223H1
FUNDAMENTAL ENVIRONMENTAL SKILLS

Fall 2017

Professor: Karen Morrison, Ph.D.
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Office hours: Prior to Class, on Request

Teaching Assistant:

Schedule: Thursday, 14:00 - 16:00. Weekly Lectures

Room: KP 108

Recommended Supplemental Texts:

Bhattacharjee, A. 2012. *Social Science Research: Principles, Methods and Practices*. Second Edition. Textbooks Collection. Book 2. Tampa: University of South Florida. http://scholarcommons.usf.edu/oa_textbooks/3

Bunce, L., P. Townsley, R. Pomeroy and R. Pollnac. 2000. *Socioeconomic manual for coral reef management*. Townsville: Australian Institute of Marine Science. http://www.icriforum.org/sites/default/files/GCRMN_Socioeconomic.pdf

Bryman, A. and E. Bell. 2012. *Social Research Methods*. Fourth Edition. Don Mills: Oxford University Press.

Calendar Description:

The practical, interdisciplinary and controversial nature of environmental issues, as well as the uncertainty that surrounds measures to address them demand mastery of a particular range of skills by environmental students. This course teaches the fundamental research, analysis and presentation skills required for effective environmental work.

Course Objectives and Design:

The course begins with an overview of the complexity of environmental issues and the major research paradigms and approaches that have developed to address them. It relates the philosophical and methodological discussions from the readings to the field of environmental studies/science.

The specific learning outcomes of the course include:

1. To distinguish among a variety of research orientations in the environmental social sciences;
2. To grasp the major similarities and differences between quantitative, qualitative and mixed method approaches;
3. To appreciate the challenge of applying these approaches to research complex environmental issues;
4. To directly apply new research skills to a group project; and,
5. To professionally and succinctly communicate the results of a research project to peers.

There will be one two-hour meeting each week. **The readings provided for the Reading Synthesis assignment are central to the course.** The classes will be discussion and lecture based with in-class exercises and time allocated for group work. While additional original research is required to complete the required assignments; the recommended readings will be of assistance.

Lecture Schedule* Fall 2017

*Subject to Change

Week	Date	Main Theme	Link to Assignments (due by 24:00 Wednesday nights)
1	7-Sept	Introduction and Overview	
2	14-Sept	Social research (ontology, epistemology & methodology) in the environmental studies/sciences; Research as one way of knowing; Generating Research Questions	
3	21-Sept	Research Design; Mixed methods Research	1 st Reading Synthesis due 20 September
4	28-Sept	Semi-structured interviews; Place-Based Methods	
5	5-Oct	Questionnaire/Survey Design; Visual Methods	2 nd Reading Synthesis due 4 October
6	12-Oct	Ethnography; Participatory Methods; Research Ethics	Research Instrument Report due 12 October
7	19-Oct	Qualitative Data Analysis	3 rd Reading Synthesis due 18 October
8	26-Oct	Mixed Methods Analysis Techniques	
9	2-Nov	Formulating Recommendations: Scenarios & Future-based planning	4 th Reading Synthesis due 1 November
		READING WEEK	
10	16-Nov	Science Communication	Data Analysis Assignment due 16 November
11	23-Nov	Group Presentations 1	2 Hard Copies of Presentation Due
12	30-Nov	Group Presentations 2 and Course Wrap Up	2 Hard Copies of Presentation Due

EVALUATION	% FINAL GRADE	DUE DATES
Reading Syntheses (4)	30%	20 September; 4 & 18 October, 1 November
Data Analysis Assignment	20%	16 November
<i>Field Research Assignments:</i>		
Individual Research Instrument Report	15%	12 October
Group Presentation	15%	23 or 30 November
Final Exam	20%	
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TOTAL	100%	

Assignments

Assignment 1: Reading Syntheses and Questions (30%); Due: 20 September; 4 & 18 October and 1 November

You are to submit a total of four one-page summaries of the required readings indicated below. Each summary should be between 500 and 750 words and include a **summary and synthesis** of the main themes and ideas of ALL the required readings for that session and **at least one discussion question**. The articles are available on the course Blackboard site.

The purpose of this assignment is to focus your reading; deepen your understanding of and reflection on the main ideas and questions discussed in the course readings; and prepare for class discussions. Keep the following points in mind when writing each summary: The main ideas and themes should come from ALL the readings for the session. The focus should be on the **main ideas and themes as they relate to this course** - not specific details and examples. A main theme or idea should be in the form of a complete sentence (not a word or phrase) and should be expressed using your own words (that is, do not use quotations). **You need to connect, compare and/or contrast ideas and themes from the different readings.**

Discussion questions should be authentic questions that are informed, insightful, well-written and point to future directions for your own inquiry and learning. You can write the summary in point form or as an essay. The writing should be concise, specific and clear. Make sure to indicate sources of ideas (i.e., author, date, page), but you do not need to include a reference list.

A copy of the summary and the question must be posted on Blackboard the night before the class in which it is due. Instructions will be provided in class on how, where and when to post summaries on-line.

This assignment will be graded in two ways:

- Contractually: 10 marks for completing all summaries on time with no qualitative judgment;
- Qualitatively: 10 marks for 2 randomly selected summaries: 1 from Sessions 2-6 and 1 from Sessions 7-11 (5 marks each).

Criteria: Full and accurate understanding of the essential meaning of all readings; appropriate and accurate selection of relevant content from the readings; excellent ability to identify common ideas and links within and across the readings; and excellent referencing and paraphrasing/summarizing of ideas from readings (See also, overall marking criteria below).

Reading List

1st Reading Synthesis

Moon, K and D. Blackman. 2014. A guide to understanding social science research for natural scientists. *Conservation Biology*. 28(5):1167-1177.

Tengo, M. et al. 2017. Weaving knowledge systems in IPBES, CBD and beyond – lessons learned for sustainability. *Environmental Sustainability*. 26:17-25.

2nd Reading Synthesis

Simpson, H., R. de Loe and J. Andrey. 2015. Vernacular knowledge and water management – Towards the integration of expert science and local knowledge in Ontario, Canada. *Water Alternatives*. 8(3):352-372.

Morrison, K. and J.E. FitzGibbon. 2013. Adaptive governance of dynamic social-ecological systems: The case of the Ontario Environmental Farm Plan (1992-2011). *Agroecology and Sustainable Food Systems*. 38:378-409.

3rd Reading Synthesis

Hutner, P., A. Thorenz and A. Tuma. 2017. Waste prevention in communities: A comprehensive survey analyzing status quo, potentials, barriers and measures. *Journal of Cleaner Production*. 141:837-851.

Kusenbach, M. 2003. Street phenomenology: The go-along as ethnographic research tool. *Ethnography*. 4(3):455-485.

Dennis, Jr., S.F., S. Gaulocher, R.M. Carpiano and D. Brown. 2009. Participatory photo mapping (PPM): Exploring an integrated method for health and place research with young people. *Health & Place*. 15:466-473.

4th Reading Synthesis

Bennett, N.J. et al. 2017. Mainstreaming the social sciences in conservation. *Conservation Biology*. 31(1):56-66.

Samakov, A. and F. Berkes. 2017. Spiritual commons: sacred sites as core of community-conserved areas in Kyrgyzstan. *International Journal of the Commons*. 11(1):422-444.

Data Analysis Take Home Assignment (20%)

Due 16 November 2017

This assignment will take **several hours** to complete. Please do not wait until the last minute to begin.

All students must complete the survey with the questions developed by the class on-line by the required date. **To ensure we have a data set of adequate size, the penalty for non-compliance (i.e. not completing the full on-line survey) will be a deduction of 50% of the final mark for this assignment.**

Using the survey data set provided by the class, and the raw interview data provided for the Ontario Environmental Farm Plan study, each student will complete the assignment provided. The data files are available on Blackboard. The reports will be completed using the template provided and will focus on the analysis and presentation of *a selection of the data* as well as an informed critique of the data collection instruments and techniques used (See also, Overall Evaluation Criteria, below). Emphasis will be on the thoroughness and quality of the answers and the presentation of the data used. NOTE: You will need to have read the Morrison and FitzGibbon (2013) paper (Week 2 assigned readings) **as well as** the following journal article to complete the semi-structured interview assignment:

Glasbergen, P. 2011. Understanding partnerships for sustainable development analytically: the Ladder of Partnership activity as a methodological tool. *Environmental Policy and Governance*. 21:1-13.

NOTE:

This is not a quantitative methods course, therefore the analysis of the survey data will be limited to a descriptive analysis.

Field Research Assignments

The field research assignment combines individual and group work. Working in small groups of 5-6 people, each group will formulate a research question focused on the theme of Greenspace in the City. Each person will be responsible for designing and implementing one data collection technique in support of the overarching group research question (see Individual Research Instrument Report Assignment, below). The groups will then use mixed methods analysis techniques to synthesize the data and formulate group findings, recommendations and conclusions to present at the end of the semester (see Group Presentation) below.

A. Individual Research Instrument Report (15%) - Due 12 October 2017

Each student will submit **one** data collection instrument* report. The report will incorporate the headings provided in the *Data Collection Research Instrument Template* (posted on Blackboard) and will include the group's research question, a brief literature review pertaining to the specific data collection technique that the individual student is responsible for, the instrument itself (e.g. interview guide, questionnaire, map), information about how it will be used in the group assignment to collect data (including sampling strategy), and a discussion of how the data collected from the instrument will be analyzed. **The recommended readings will be of assistance. At least four (4) references pertaining to the method and/or design of the instrument are required.** The portfolio will be marked using the evaluation criteria for written work outlined below.

* the 'instrument' is the tool on which data are recorded

B. Group Presentation (15%)

Due 23 or 30 November

The professor, in consultation with the teaching assistant, will assign a mark to each group presentation based on the evaluation criteria for oral presentations outlined below. The presentations should be structured as a traditional scientific presentation (i.e. Introduction, Methods, Results, Conclusions and Recommendations). The results presented must reflect a mixed methods approach to their interpretation – i.e. NOT the results of the each of the individual data collection methods. Refer to O'Cathain et al. (2008) (Week 4 reading synthesis) for the Good Reporting of a Mixed Methods Study (GRAMMS) guidelines, below. All group members must present. The presentations will be **strictly limited** to 7 minutes**, with an additional 3 minutes for questions. The presenters will be cut off after 7 minutes and only evaluated on the work presented. Please practice your presentation in advance.

**Note that the final presentation time limit may change depending on course registration numbers

Final Exam (20%) – Exam Period, TBA

The final exam 2-hour exam will be based on lecture notes and discussions AND the assigned readings. The exam will be comprised of 20 multiple choice questions and two (of three) short essay questions and will focus on the major themes of the course.

Overall Evaluation Criteria

The primary criteria used in evaluating **written work** are the following:

- 1) Mechanics: Your work must be completely free of grammatical errors, spelling errors or major factual errors. References can be in any style but the same format must be used consistently and they must be accurate.
- 2) Writing style: Your papers should be written in a clear and unambiguous style which assists, rather than impedes, communication with the reader.
- 3) Structure: Your written work should have a clear focus, provided by the research question, and a structure which logically flows from that focus.
- 4) Precision and accuracy: Precision means saying exactly and specifically what you mean, avoiding ambiguity and vague generalities. Accuracy refers to absence of major factual errors.
- 5) Analysis: Your analysis should display understanding of the topic and, based on that understanding, originality of thought.

The primary criteria used in evaluating **oral presentations** are the following:

- 1) Success in communicating key concepts succinctly and accurately, thereby demonstrating sound understanding of the work being presented.
- 1) Mechanics of communication, such as manner of speaking (including good diction and tone),
- 2) Structure of the presentation and level of organization.
- 3) Ability to respond appropriately and fairly to questions and contribute to and stimulate unstructured discussion among peers.

Please also refer to the Faculty's and the University's Grading Policies at:

<https://fas.calendar.utoronto.ca/rules-regulations#marks>

<http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/grading.pdf>

Academic Integrity

Academic integrity is fundamental to learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will be valued as a true indication of your individual academic achievement, and will continue to receive the respect and recognition it deserves.

Familiarize yourself with the University of Toronto's *Code of Behaviour on Academic Matters*

(<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>). It is the rule book for academic behaviour at the U of T, and you are expected to know the rules. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement
- Copying material word-for-word from a source (including lecture and study group notes) and not placing the words within quotation marks
- Submitting your own work in more than one course without the permission of the instructor
- Making up sources or facts
- Including references to sources that you did not use
- Obtaining or providing unauthorized assistance on any assignment including:

- working in groups on assignments that are supposed to be individual work
- having someone rewrite or add material to your work while "editing"
- Lending your work to a classmate who submits it as his/her own without your permission

On tests and exams:

- Using or possessing any unauthorized aid, including a cell phone
- Looking at someone else's answers
- Letting someone else look at your answers
- Misrepresenting your identity

- Submitting an altered test for re-grading

Misrepresentation:

- Falsifying or altering any documentation required by the University, including doctor's notes
- Falsifying institutional documents or grades

Further information about academic integrity is available from the website of the Office of Student Academic Integrity at: www.artsci.utoronto.ca/osai/students

Accessibility Needs

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: <http://studentlife.utoronto.ca/as>

ADDITIONAL INFORMATION

Student Conduct

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect and to refrain from actions disruptive to such a relationship. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class.

Lateness Penalty & Hard Copy Requirement

Written assignments are due in class before the end of the lecture period. **Submission must be received in hard copy form on due date or will be considered late.** Late assignments must be dropped off at ES1049 in the 5 Bancroft wing of Earth Sciences. Late assignments will be subject to a penalty of 5% of the value of the assignment per day. Because the late assignment drop box is closed from Friday at 18:00 to Monday at 08:30, late assignments completed on the weekend should be emailed to the professor as soon as they are complete to establish the late penalty, and then handed in in hard copy to the late assignment drop box on Monday morning. **Hard copies of the Individual Research Instrument Report and the Data Analysis assignments, as well as two copies of a 'handout' containing the final Group Presentation slides are required to receive a final grade on the assignments. The Reading Syntheses are submitted on Blackboard.**

Exceptions to the lateness penalty for valid reasons such as illness, compassionate grounds, etc. will be entertained by the Course Director **only** when supported by written documentation (e.g., a doctor's letter). Within reason, groups are expected to make their own arrangements to complete the assignment in the event that one group member is ill or indisposed. In-class assignments must be completed in class. Missed assignments cannot be made up. Where exceptions are granted (see 'exceptions to lateness policy, above) and are based on an absence of more than two lectures, the calculation of the final assignment grade will be revised, if necessary. Missing a single lecture will not constitute grounds for changing the terms of an assignment.

Online Communication

Email will be the primary form of communication between the students and the professor outside of the regularly scheduled office hours. Questions about the assignments should be directed to the Teaching Assistant for the Course. The professor will endeavor to respond to an email within **3 working days**. Emails received in the evening or weekends will not be read until the next business day. Students are advised to not send any reminders regarding their communication until at least 3 working days have passed. Urgent information regarding an issue that would substantially affect the student's ability to participate in the course should be marked as such. Student emails should include 'ENV223' in the subject line for easier processing.