

University of Toronto - School of the Environment  
Course Syllabus

ENV223H1: Fundamental Environmental Skills  
Fall 2024



In-person LECTURES – Thursdays, 10:00am – 12:00pm

*See Acorn for Room Location*

Quercus Page: <https://q.utoronto.ca/courses/352203>

## I COURSE TEAM & CONTACT INFORMATION

Please read the Communication Policy below BEFORE contacting anyone on the course team, thanks!

### Prof. Lisa Mychajluk – Course Instructor

Contact: [lisa.mychajluk@utoronto.ca](mailto:lisa.mychajluk@utoronto.ca)

Office hours / location: Fridays 10am to 11:30am ONLINE *by appointment* -- [Book time with Lisa Mychajluk: ENV223 \(FALL 2024\)](#) [ONLY TO BE USED FOR PURPOSES DISCUSSED BELOW]

### Meagan Dellavilla – Teaching Assistant

Contact: [Meagan.dellavilla@mail.utoronto.ca](mailto:Meagan.dellavilla@mail.utoronto.ca)

Office hours / location: *See Quercus*

### COMMUNICATION POLICY – *Please read carefully*

IF THE INFORMATION CANNOT BE FOUND FIRST ON THE SYLLABUS, and your inquiry is of a **non-personal** nature, please post your question on the **COURSE DISCUSSION BOARD** on Quercus. *Remember to read through the discussion board and course announcements to avoid redundancy.* **Non-emergency emails that are better directed to the discussion board will not receive a reply.**

### Who to email?

Issues that cannot be addressed on the Discussion Board should be emailed to:

**Course instructor:** Personal issues that require instructor's attention; anything related to material discussed in lectures.

**Course TA:** Anything related to assignments, including extension without penalty requests (see Course Late Policy below)

Please use email as a professional tool of correspondence that communicates in a respectful manner. **Allow up to 48 hours** for the instructor or TA to respond. Always place the course name and number "ENV223" in the subject heading of your email. **Only send emails from your University of Toronto email account – those sent from personal accounts will not be responded to.** Directly address the instructor or TA by name, and always provide your own (full) name as part of your message.

## II COURSE OVERVIEW

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### **COURSE DESCRIPTION:**

Environmental Studies is an interdisciplinary field concerned with the interactions between humans and the environment. The nature of these interactions is inherently complex, and demands that environmental scholars and practitioners know how to generate, evaluate, and communicate reliable and relevant information when making decisions or proposing changes to environmental policy and practice, and when advocating societal changes to address socioenvironmental issues. This course teaches the fundamental research, analysis and presentation skills required for effective environmental work. Skills developed in this course will help students in future research projects during their academic program and in their professional practice, regardless of whether they pursue a career in research or not.

This course is for students enrolled in the Environmental Studies Major program, or permission of the Undergraduate Associate Director.

*Prerequisite:* Completion of 4.0 credits

*Exclusion:* [GGR271H1](#)

### **STUDENT LEARNING OUTCOMES:**

This course will allow students to develop basic skills that will enable them to locate and critically assess existing environmental research, as well as to design and plan a basic research project on a current environmental issue, including how to conduct and report on it. More concretely, by the end of the course students should be able to:

- Understand how to develop a testable research question that can guide environmental research.
- Design an environmental research project proposal.
- Understand and incorporate ethical concerns and responsibilities into research.
- Identify and evaluate different sources of data and primary data gathering techniques.
- Demonstrate appropriate strategies for data analysis and interpretation.
- Communicate research results effectively through different forms (orally, written, and visually).
- Critically assess the strengths and limitations of environmental research.
- Develop the ability to work collaboratively and effectively in groups.
- Strengthen writing skills.

### **COURSE MATERIALS:**

There is no required textbook for this course. Readings will be assigned from academic journal articles, book chapters and other sources to cover the topics discussed in class each week. Assigned readings and materials will play an important role in building your skills, informing in-class discussions and for the completion of assignments. **Required readings / viewings are listed at the end of this course syllabus.** The complete required readings collection will be available under the **Library Reading List** tab on the *Quercus* course page from the start of the course, so you can begin reviewing that material at any time. Supplementary readings are also listed – these are suggested readings that may additionally improve your understanding of discussed topics. Additional resources specific to assignments will be provided on the assignment guidelines.

### III HOW THE COURSE IS ORGANIZED

A module for each week can be found on the course Quercus page:

<https://q.utoronto.ca/courses/352203>

Please refer to these modules prior to lecture each week for additional details on how to prepare for class.

DATE	WEEK	TOPICS	NOTES
<b>PART I. Introduction to Research Planning</b>			
Sep. 5	1	Introductions, overview of course & policies; What is Research?	
Sep. 12	2	Research as a way of knowing; Topics and problems; Developing research questions	Forming groups and exploring topics
Sep. 19	3	Sources of information; Literature reviews; Referencing	Library presentation
Sep. 26	4	Research design, planning, and proposals	<b>Research Topic and Group Agreement (5%) due Sep. 27</b>
Oct 3	5	Research ethics; Positionality	<b>Annotated Bibliography (10%) due Oct. 4</b>
<b>PART II. Research Methods &amp; Data Analysis in Environmental Studies</b>			
Oct 10	6	Quantitative methods & analysis	<b>Positionality Statement (10%) due Oct. 11</b>
Oct 17	7	Qualitative methods & analysis	
Oct 24	8	Mixed-methods	<b>Research Proposal Part 1 – RQs &amp; Design (15%) due Oct. 25</b>
<b>Oct 31 – Fall Reading Week – No Class</b>			
Last Day to Drop Fall term courses: November 4, 2024			
<b>PART III. Research Communication in Environmental Studies</b>			
Nov 7	9	Results and findings	<b>Research Proposal Part 2 - Data Analysis Strategy (10%) due Nov. 8</b>
Nov 14	10	Report writing; Research dissemination	
Nov 21	11	Presentations (groups TBD)	<b>Mini-presentations (10%) due Nov. 22</b>
Nov 28	12	Presentations (groups TBD) and course wrap-up	
Dec 6	-	-	<b>Research Proposal Part 3 - Final (25%) due Dec. 6</b>
Dec 13	-	-	<b>Personal Reflection (5%) due Dec. 13</b>

## IV EVALUATION/GRADING SCHEME

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Evaluation for this course centers on a research project, undertaken as a group of 5 students (to be formed in class), involving several components to be submitted individually or as a group (as noted). **Submission time for all assignments is by 11:59pm on date due.**

**Assignment descriptions, instructions, resources, and marking rubrics, will be posted under the “Assignments” tab on the course Quercus page**

WHAT	WHO	WHEN	WORTH
Research Topic and Group Agreement	GROUP	Sep. 27	5%
Annotated Bibliography	INDIVIDUAL	Oct. 4	10%
Positionality Statement	INDIVIDUAL	Oct. 11	10%
Research Proposal Part 1: RQs & Design	GROUP	Oct. 25	15%
Research Proposal Part 2: Data Analysis Strategy	GROUP	Nov. 8	10%
Mini Presentations	GROUP	Nov. 22	10%
Research Proposal Part 3: Final	GROUP	Dec. 6	25%
Personal Reflection	INDIVIDUAL	Dec. 13	5%
Participation*	INDIVIDUAL	On-going	10%
<b>TOTAL</b>			<b>100%</b>

\* The participation grade (10%) is calculated at the end of term and based on participation in discussion and activities (in-class or otherwise assigned).

**Note on grading of group work:** An additional discretionary component **may** be applied to a student’s grade for group work (up to  $\pm$  10% for each group assignment). Group members within the research project are expected to participate and contribute collaboratively to the project outcomes. This discretionary component will be determined at the end of the term through a peer and self-assessment process (details will be explained in class); they will be applied at my discretion. Please note that severe lack of participation in group work may lead to an individual zero grade on the group project and, as such, likely a failing grade for the course.

### CRITERIA FOR EVALUATING WORK

Full criteria for evaluating assignments will be discussed in class and available on Quercus. Broadly, assignments should convey and analyze with **precision** and **accuracy**, and with **clear focus**; your **writing style should be clear** and unambiguous, and **your mechanics free of grammatical errors, spelling or major factual errors**. You should also be able to **reference** materials appropriately. *Please consult referencing style guides (e.g., APA-7), e.g., <https://guides.library.utoronto.ca/c.php?g=250462&p=1670709>*

Oral presentations will be assessed on the basis of being delivered **succinctly** and **engagingly**, and the group’s ability to respond **appropriately** to questions and **stimulate** class discussion.

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## V COURSE POLICIES

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### LECTURES AND CLASSROOM POLICIES

- **Punctuality:** Class will start on time (i.e., 10:10 AM). If you have to come into class late, please do so in the least disruptive manner possible. As a sign of respect to the instructor and the rest of the class, arrivals after 10:30 PM are discouraged.
- **A positive learning environment:** “The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another’s differences. U of T does not condone discrimination or harassment against any persons or communities.” This applies to all matters and interactions related to the course including participation in class, group work, student presentations, communications with the teaching team regarding course content or evaluation, etc.
- **Etiquette regarding the use of computers and other electronic devices:** The use of computers and other electronic devices has become central to learning; still, the use of electronics in class must be limited to activities directly related to the course. Other uses are disruptive for the instructor and peers and thus are unacceptable.
- **Illness and masks:** While the University currently has no masking requirements in place, the University remains a mask-friendly environment, and we ask everyone to respect each other’s decisions, comfort levels, and health needs. If you have recently experienced illness, or recently been exposed to COVID-19 or to someone with symptoms, please wear a mask. Let’s be conscientious and kind to others. If you are experiencing a respiratory illness that is likely contagious, please do not come to class. It is highly advised that you have a course buddy who can provide you with notes, and other course information, should you need to miss class due to illness.
- **Course notes:** As a courtesy, I will be posting my Powerpoint slides on Quercus *after* class. Please note that I am under no obligation to do so and that such notes are intended to assist you and not replace your personal notes. The instructor reserves the right to stop posting the slides at any time at her discretion.
- **Lecture recordings:** Lectures will not be recorded. However, in unforeseeable circumstances, if I am unable to make it to class (e.g., illness), a lecture will be recorded in lieu and posted on the course Quercus page. *Notifications of cancelled and posted lectures will be sent via email, and posted on the Course Announcements page, as early as circumstances allow.*

### ASSIGNMENTS POLICIES

- **Late submissions:** All assignments are due by 11:59pm on the date indicated on the Quercus assignments page. Please do not wait until the last minute to submit your work, as technical issues are not a valid excuse for lateness. Late work will be accepted with a 5% daily penalty (including Saturdays and Sundays), up to seven days after the due date. This penalty may be waived if proper documentation is provided (see next section). If you require accommodations, please communicate with the instructor as soon as possible, and preferably well in advance of assignment due dates.

- **Medical certificate & documentation supporting extensions:** If you become ill and it affects your ability to do your academic work, consult me right away. Normally, I will ask you for documentation in support of your specific medical circumstances. This documentation can be an Absence Declaration (via ACORN) or the University's Verification of Student Illness or Injury (VOI) form. According to University policy, the ACORN Absence Declaration Tool is intended to be used in the following circumstances:
  - A health condition or injury (e.g., illness, serious physical harm, mental health issue, scheduled surgery)
  - A personal or family emergency (e.g., unanticipated and unavoidable familial incident beyond the student's control)
  - Bereavement (e.g., the death a student's immediate family member or close friend)

The VOI indicates the impact and severity of the illness, while protecting your privacy about the details of the nature of the illness. If you cannot submit a VOI due to limits on terms of use, you can submit a different form (like a letter from a doctor), as long as it is an original document, and it contains the same information as the VOI (including dates, academic impact, practitioner's signature, phone and registration number). For more information on the VOI, please see <https://registrar.utoronto.ca/policies-and-guidelines/verification-of-illness-or-injury/>. For information on Absence Declaration Tool for A&S students, please see <https://www.artsci.utoronto.ca/absence>. If you get a concussion, break your hand, or suffer some other acute injury, you should register with Accessibility Services as soon as possible. *Please note that extensions will **NOT** be granted for workload issues or foreseeable situations.*

- **Re-marking of assignments**

Students concerned about the assessment in assignments are invited to carefully read the feedback provided by the TA and/or instructor in written form and in the assignment rubric (where applicable). If you require clarification or feel that you have been unfairly assessed, please contact the TA or the instructor (as appropriate) explaining the rationale for your request **within one week (seven days)** of receiving the graded assignment. Please be aware that rereading the assignment does not necessarily translate into a higher grade. It is a reassessment and as such, the grade may remain, go up, or drop. Requests made after one week may no longer be considered.

## VI TECHNOLOGY REQUIREMENTS

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This course requires the use of computers for research and completion of assignments. It is also advisable to bring a device (laptop, tablet, smartphone) to class, to participate in the occasional interactive activity. Time for group work will also occasionally be provided during class times, and devices may be beneficial.

Of course, sometimes things can go wrong with technology. You are responsible for ensuring that you maintain regular backup copies of your files, use antivirus software (if using your own computer), and schedule enough time when completing an assignment to allow for delays due to technical difficulties. Computer viruses, crashed hard drives, lost or corrupted files, incompatible file formats, and similar mishaps are common issues when using technology, and are not acceptable grounds for a deadline extension.

If you have more questions, please consult the U of T Vice-Provost site below for information regarding student technology requirements: <https://www.viceprovoststudents.utoronto.ca/covid-19/tech-requirements-online-learning/>

## VII INSTITUTIONAL POLICIES AND SUPPORT

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### ACADEMIC INTEGRITY

What does it mean to act with academic integrity? U of T supports the International Center for Academic Integrity's definition of academic integrity ([Fundamental Values \(academicintegrity.org\)](https://academicintegrity.org)) as acting in all academic matters with **honesty, trust, fairness, respect, responsibility, and courage**. For an Indigenous perspective on these values, you might also like to read more about the [Seven Grandfathers in Academic Integrity.pdf \(utoronto.ca\)](#).

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments:

1. Using someone else's ideas or words without appropriate acknowledgement.
2. Submitting your own work in more than one course without the permission of the instructor.
3. Making up sources or facts.
4. Obtaining or providing unauthorized assistance on any assignment.

For more on plagiarism see: <https://guides.library.utoronto.ca/c.php?g=250462&p=1670712>

On tests and exams:

1. Using or possessing unauthorized aids.
2. Looking at someone else's answers during an exam or test.
3. Misrepresenting your identity.

In academic work:

1. Falsifying institutional documents or grades.
2. Falsifying or altering any documentation required by the University.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see <https://www.academicintegrity.utoronto.ca/>).

- **The use of generative artificial intelligence (AI) tools or apps:** This course policy is designed to promote your learning and intellectual development and to help you reach course learning outcomes. The use of generative artificial intelligence tools and apps is strictly prohibited in all course assignments unless explicitly stated otherwise by the instructor in this course. This includes ChatGPT and other AI writing and coding assistants. Use of generative AI in this course may be considered use of an unauthorized aid, which is a form of cheating.



- **Use of Turnitin:** Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

### **AUDIOVISUAL MATERIAL AND RECORDINGS**

Course videos and materials belong to your instructor, the University, and/or other source depending on the specific facts of each situation, and are protected by copyright. In this course, you are permitted to download materials for your own academic use, but you should not copy, share, or use them for any other purpose without the explicit permission of the instructor. Recording of lectures is not permitted unless explicit permission of the instructor is received in advance.

### **ACCESSIBILITY NEEDS**

Students with diverse learning styles and needs are welcome in this course. The University of Toronto is committed to accessibility: if you require accommodations for a disability, or have any other accessibility concerns about the course, please contact [Accessibility Services](#) as soon as possible.

### **ADDITIONAL SERVICES and SUPPORT**

The following are some important links to help you with academic and/or technical service and support:

- General student services and resources at [Student Life](#)
- Full library service through [University of Toronto Libraries](#)
- Resources on conducting online research through [University Libraries Research](#)
- Resources on academic support from the [Academic Success Centre](#)
- Learner support at the [Writing Centre](#)
- Information for [Technical Support/Quercus Support](#)

Also, please be aware that the U of T My Student Support Program (MySSP) app has updated its name to **U of T Telus Health Student Support** and can be accessed at <https://mentalhealth.utoronto.ca/telus-health-student-support/>.

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## V READINGS AND RESOURCES

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**PLEASE CHECK THE MODULES PAGES FOR EACH WEEK OF CLASS TO CONFIRM REQUIRED READINGS**

### WEEK 2: Research as a way of knowing; Topics and problems; Developing research questions

Required readings:

Kanazawa, M. (2024). **Chapter 1:** Introduction to Research Methods in Environmental Studies & **Chapter 2:** A Brief History of Knowledge and Argumentation, In *Research Methods for Environmental Studies: A Social Science Approach*. Routledge.

**WATCH:** (2021). Thinking of your research questions: characteristics of "good" and "bad" research questions [Video]. Sage Research Methods. [Duration: 00:11:35] <https://doi.org/10.4135/9781529624298>

Supplementary readings:

Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., & FitzGerald, W. T. (2024). *The craft of research* (Fifth edition.). The University of Chicago Press. (**Chapter 1:** From Topics to Questions & **Chapter 2:** From Questions to a Problem) [https://librarysearch.library.utoronto.ca/permalink/01UTORONTO\\_INST/14bjeso/alma991107371439206196](https://librarysearch.library.utoronto.ca/permalink/01UTORONTO_INST/14bjeso/alma991107371439206196)

Ivanochko, T. (2021). Writing Research Questions, In *Think, Do, and Communicate Environmental Science* (pp. 64-73). Cambridge: Cambridge University Press. DOI: 10.1017/9781108526104.007

Agee, J. Developing qualitative research questions: a reflective process, Pages 431-447, 09 Jul 2009, <https://www.tandfonline.com/doi/full/10.1080/09518390902736512>

### WEEK 3: Sources of information; Literature reviews; Referencing

Required readings:

Best, S. (2012). **Chapter 3:** Searching and reviewing literature, In *Understanding and Doing Successful Research: Data Collection and Analysis for the Social Sciences* (1st ed.). Routledge. (pp.39-58)

Why Cite? <https://guides.library.utoronto.ca/citing>

U of T Writing Advice guides:

- Research using the Internet: <https://advice.writing.utoronto.ca/researching/research-using-internet/>
- Preview: <https://advice.writing.utoronto.ca/researching/preview/>
- Skim and scan: <https://advice.writing.utoronto.ca/researching/skim-and-scan/>
- Summarize: <https://advice.writing.utoronto.ca/researching/summarize/>

**Preview, and then skim and scan the following articles (see materials above), noting the different types of scholarly publications. *I am not looking for you know all the details about the papers, but rather that you pay attention to the differences in style and function of various forms of scholarly writing.***

Steg, L. (2016). [Values, norms, and intrinsic motivation to act proenvironmentally](#). *Annual Review of Environment and Resources* 41: 277-292.

- Yuriev, A., Boiral, O., Francoeur, V., and P. Paillé. (2018). [Overcoming the barriers to pro-environmental behaviors in the workplace: A systematic review](#) [Links to an external site.](#), *Journal of Cleaner Production* 182: 379-394.
- van Horen, F., van der Wal, A., and A. Grinstein. (2018). [Green, greener, greenest: Can competition increase sustainable behavior?](#) *Journal of Environmental Psychology*, 59: 16-25.
- Asvatourian, V., Craig, T., Horgan, G.W., Kyle, J., and J.I. Macdiarmid (2018). [Relationship between pro-environmental attitudes and behaviour and dietary intake patterns](#) *Sustainable Production and Consumption*, 16: 216-226.
- McGrath, A.L. (2018). [Encouraging ecological behaviour through induced hypocrisy and inconsistency: A commentary](#) [Links to an external site.](#), *Journal of Environmental Psychology* 56:1-2.
- Qi, Sun, Q. Zhao, A. Spahn and G. Verbong (2023). [Pathway towards sustainability or motorization? A comparative study of e-bikes in China and the Netherlands](#) [Links to an external site.](#), *Global Environmental Change* 82, 102735.

### Supplementary

(Academic). (2024). Finding data for secondary data analysis: what is open access data? [Video]. Sage Research Methods. <https://doi.org/10.4135/9781529697995> [Duration: 00:07:37] <https://methods-sagepub-com.myaccess.library.utoronto.ca/video/finding-data-for-secondary-data-analysis-what-is-open-access-data>

Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., & FitzGerald, W. T. (2024). *The craft of research* (Fifth edition.). The University of Chicago Press. (**Chapter 3:** Find and Evaluating Sources, **Chapter 4:** Engaging Sources & **Chapter 12:** Incorporating Sources)  
[https://librarysearch.library.utoronto.ca/permalink/01UTORONTO\\_INST/14bjeso/alma991107371439206196](https://librarysearch.library.utoronto.ca/permalink/01UTORONTO_INST/14bjeso/alma991107371439206196)

## **WEEK 4: Research design, planning, and proposals**

### Required readings:

Kanazawa, M. (2024). **Chapter 3:** General Research Design & **Chapter 22:** Writing a Research Proposal, In *Research Methods for Environmental Studies: A Social Science Approach*. Routledge.

One of the following two articles, based on the first letter of your last name. You are asked to skim and scan the article with the goal of identifying the researchers' strategy and research design. Specifically, you need to identify the following aspects from the article:

1. General theme
2. Research topic
3. Research question(s)
4. Research design
5. Methods
6. Subjects & location

*We will be discussing them in class tomorrow. Please come prepared.*

### **Students whose last names start with the letters A-M:**

Jordi-Sanchez, M. (2018). [Social perceptions of the promotion of cycling as a mode of transport for children in Andalusia \(Spain\)](#). *Journal of Transport Geography* 72: 86-93.

### **Students whose last names start with the letters N-Z:**

Rybarczyk, G. (2018). [Toward a spatial understanding of active transportation potential among a university population](#). *International Journal of Sustainable Transportation*. 22(9): 625-636.

Supplementary readings:

Gauthier, S., & Turner, P. (Academics). (2023). Researching sustainability perspectives through online 'face-to-face' focus groups [Video]. Sage Research Methods. [Duration: 00:26:48] <https://doi.org/10.4135/9781529624687>

Pontis, Sheila (2018). **Chapter 3:** What is Field Research?, & **Chapter 4:** How to Plan and Design a Field Study, In *Making Sense of Field Research: A Practical Guide for Information Designers*. Routledge.  
[https://librarysearch.library.utoronto.ca/permalink/01UTORONTO\\_INST/14bjeso/alma991106921120306196](https://librarysearch.library.utoronto.ca/permalink/01UTORONTO_INST/14bjeso/alma991106921120306196)

**WEEK 5: Research ethics; Positionality**

Required readings:

Kanazawa, M. (2024). **Chapter 4:** Ethical Issues in Environmental Research, In *Research Methods for Environmental Studies: A Social Science Approach*. Routledge.

Holmes, A. G. D. (2020). Researcher positionality - A consideration of its influence and place in qualitative research - A new researcher guide. *Shanlax International Journal of Education*, 8(4), pp. 1-10. DOI: <https://doi.org/10.34293/education.v8i4.3232>

Supplementary readings:

**On research ethics with human subjects**

\* Panel on Research Ethics- Government of Canada. (2017). *Taking Part in Research Brochure*, pp. 1-2. [brochure\\_en.pdfDownload brochure\\_en.pdf](#)

\* Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022). [https://ethics.gc.ca/eng/policy-politique\\_tcps2-eptc2\\_2022.html](https://ethics.gc.ca/eng/policy-politique_tcps2-eptc2_2022.html) [Links to an external site.](#)

Trisos, C.H., Auerbach, J. & Katti, M. Decoloniality and anti-oppressive practices for a more ethical ecology. *Nat Ecol Evol* 5, 1205–1212 (2021). <https://doi.org/10.1038/s41559-021-01460-w>

**On positionality**

Jacobson, D., & Mustafa, N. (2019). [Social Identity Map: A Reflexivity Tool for Practicing Explicit Positionality in Critical Qualitative Research](#) [Links to an external site.](#). *International Journal of Qualitative Methods*, 18.

Boyce, Bhattacharyya, J., & Linklater, W. (2022). The need for formal reflexivity in conservation science. *Conservation Biology*, 36(2). <https://doi.org/10.1111/cobi.13840> <https://conbio-onlinelibrary-wileycom.myaccess.library.utoronto.ca/doi/pdfdirect/10.1111/cobi.13840>

**WEEK 6: Quantitative research methods**

Required readings:

Kanazawa, M. (2024). **Chapter 5:** General Principles of Quantitative Research, **Chapter 6:** Quantitative Data and Sampling & **Chapter 7: (pp. 127-130 only)** Basic Quantitative Methods and Analysis, In *Research Methods for Environmental Studies: A Social Science Approach*. Routledge.

**Read the methodology and findings section of the following paper:**

Caldwell, C., Probstein, N., & Yoreh, T. (2022). Shades of green: environmental action in places of worship. *Journal of Environmental Studies and Sciences*, 12(3), 430–452. <https://doi.org/10.1007/s13412-022-00760-2>

Supplementary readings:

(Academic). (2024). Examining validity using response processes evidence: are the scores from your measures meaningful? [Video]. Sage Research Methods. [Duration: 00:37:09] <https://doi.org/10.4135/9781036200343> <https://methods-sagepub-com.myaccess.library.utoronto.ca/video/examining-validity-using-response-processes-evidence-scores-meaningful>

**WEEK 7: Qualitative research methods**

Required readings:

Kanazawa, M. (2024). **Chapter 11:** General Principles of Qualitative Research, In *Research Methods for Environmental Studies: A Social Science Approach*. Routledge.

Lester, J. N., Cho, Y., & Lochmiller, C. R. (2020). Learning to Do Qualitative Data Analysis: A Starting Point. *Human Resource Development Review*, 19(1), 94-106. <https://doi-org.myaccess.library.utoronto.ca/10.1177/1534484320903890>

Supplementary

Seamon, D. and Gill, H.K. (2016). Qualitative Approaches to Environment–Behavior Research. In R. Gifford (ed.), *Research Methods for Environmental Psychology* (pp. 115–135). John Wiley & Sons, Incorporated. <https://doi.org/10.1002/9781119162124.ch7> [https://librarysearch.library.utoronto.ca/permalink/01UTORONTO\\_INST/fedca1/cdi\\_wiley\\_ebooks\\_10\\_1002\\_9781119162124\\_ch7\\_ch7](https://librarysearch.library.utoronto.ca/permalink/01UTORONTO_INST/fedca1/cdi_wiley_ebooks_10_1002_9781119162124_ch7_ch7)

**WEEK 8: Mixed methods**

Required readings:

Kieslinger, J., Pohle, P., Buitrón, V., & Peters, T. (2019). Encounters Between Experiences and Measurements: The Role of Local Knowledge in Climate Change Research. *Mountain Research and Development*, 39(2), R55–R68. <https://doi.org/10.1659/MRD-JOURNAL-D-18-00063.1> [https://librarysearch.library.utoronto.ca/permalink/01UTORONTO\\_INST/fedca1/cdi\\_doaj\\_primary\\_oai\\_doaj\\_org\\_article\\_e83639b188f94166bb423e9bfea9a809](https://librarysearch.library.utoronto.ca/permalink/01UTORONTO_INST/fedca1/cdi_doaj_primary_oai_doaj_org_article_e83639b188f94166bb423e9bfea9a809)

**WATCH:** Bueddefeld, J. (Academic). (2023). Methodological bricolage and COVID-19: environmental behavior change research [Video]. Sage Research Methods. [Duration: 00:51:37] <https://doi.org/10.4135/9781529624212>

Supplementary readings:

DeJonckheere, M., Lindquist-Grantz, R., Toraman, S., Haddad, K., & Vaughn, L. M. (2019). Intersection of Mixed Methods and Community-Based Participatory Research: A Methodological Review. *Journal of Mixed Methods Research*, 13(4), 481–502. <https://doi.org/10.1177/1558689818778469>

Kinnebrew, E., Shoffner, E., Farah-Pérez, A., Mills-Novoa, M. and Siegel, K. (2021), Approaches to interdisciplinary mixed methods research in land-change science and environmental management. *Conservation Biology*, 35: 130-141. <https://doi-org.myaccess.library.utoronto.ca/10.1111/cobi.13642>

## WEEK 9: Results and findings

### Required readings:

Pontis, Sheila (2018). **Chapter 7:** Making sense of field data, In *Making Sense of Field Research: A Practical Guide for Information Designers*. Routledge. **pp. 129-145 ONLY**  
[https://librarysearch.library.utoronto.ca/permalink/01UTORONTO\\_INST/14bjeso/alma991106921120306196](https://librarysearch.library.utoronto.ca/permalink/01UTORONTO_INST/14bjeso/alma991106921120306196)

### Supplementary readings:

Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., & FitzGerald, W. T. (2024). *The craft of research* (Fifth edition.). The University of Chicago Press. (**Chapter 13:** Communicating Evidence Visually)  
[https://librarysearch.library.utoronto.ca/permalink/01UTORONTO\\_INST/14bjeso/alma991107371439206196](https://librarysearch.library.utoronto.ca/permalink/01UTORONTO_INST/14bjeso/alma991107371439206196)

Cashman, S. B., Adeky, S., Allen, A. J., Corburn, J., Israel, B. A., Montaña, J., Rafelito, A., Rhodes, S. D., Swanston, S., Wallerstein, N., & Eng, E. (2008). The Power and the Promise: Working with Communities to Analyze Data, Interpret Findings, and Get to Outcomes. *American Journal of Public Health*, 98(8), 1407– 1417.  
<https://doi.org/10.2105/AJPH.2007.113571>

**Course:** Introduction to Data Visualization – Part 2: Practice with Tableau Module (2 hours) [Introduction to Data Visualization – Part 2: Practice with Tableau Module](#)

## WEEK 10: Report writing; Research dissemination

### Required readings:

Lakoff, G. (2010). Why it Matters How We Frame the Environment. *Environmental Communication*, 4(1), 70–81.  
<https://doi.org/10.1080/17524030903529749>

Hurley, J. (2023). One slide and three minutes: How PhD students are trying to explain their life’s work to the masses, *Toronto Star* (March 26).  
[https://www.thestar.com/news/gta/one-slide-and-three-minutes-how-phd-students-are-trying-to-explain-their-life-s/article\\_f04f5970-3aee-5788-81d9-0f8a422bb78e.html](https://www.thestar.com/news/gta/one-slide-and-three-minutes-how-phd-students-are-trying-to-explain-their-life-s/article_f04f5970-3aee-5788-81d9-0f8a422bb78e.html)

**READ:** [Material and Regulatory Roadblocks to Offshore Wind Development in the United States](#) and scan the two original papers referred to (link on webpage). Consider:

- How do the academic articles differ from the review article?
- Did the review article provide an accurate representation of the main findings of the academic articles?
- Which did you enjoy reading more? Why?
- Who would benefit from reading the review article, and who would benefit from readings the academic articles?

### Supplementary readings:

ENV223 (Fall 2024)

Howarth, C., Parsons, L., & Thew, H. (2020). Effectively Communicating Climate Science beyond Academia: Harnessing the Heterogeneity of Climate Knowledge. *One Earth (Cambridge, Mass.)*, 2(4), 320–324.  
<https://doi.org/10.1016/j.oneear.2020.04.001>

Yale Environment Review: <https://environment-review.yale.edu/> (scan articles of interest)