School of the Environment

ENV1197 Fall 2024 Course Syllabus Professor Teresa Kramarz

I CONTACTS

INSTRUCTOR

Name: Teresa Kramarz

Email: teresa.kramarz@utoronto.ca Office hours: Thursdays 2-3pm

II COURSE OVERVIEW

COURSE DESCRIPTION:

This is the first of a two-part course on research processes and methodologies for MES students. It will teach students the skills and knowledge necessary to write a research proposal based on a significant research question, anchored in literature and theory, and to determine an appropriate research strategy to address this question. This proposal can serve as the basis for the MES thesis. The course will teach students how to apply critical thinking skills to the research process as they transition from consumers to producers of research.

STUDENT LEARNING OUTCOMES:

By the end of this course student will learn how to develop a research proposal, including how to

- i. Develop a research question and write a thesis statement
- ii. Assemble an annotated bibliography
- iii. Write a literature review
- iv. Identify theoretical frameworks
- v. Develop an approach to answer their research question
- vi. Correctly cite research (using Chicago Manual of Style, author-date format)
- vii. Evaluate appropriate data sources and material for research
- viii. Evaluate peer work according to established criteria

III HOW THE COURSE IS ORGANIZED

This is an in-person seminar class. Students will meet every Thursday during the Fall term. In preparation for these meetings, students are expected to read relevant literature and documents, prepare presentations, and formulate questions for completing the academic assignments.

COURSE SCHEDULE & RELEVANT SESSIONAL DATES:

DATES	WEEK	TOPICS	
September 5	1	What is knowledge? How do we know what we know? Why do we bother asking?	
September 12	2	Research sources and citation workshop. Bring your laptop to class Topic and draft research question 1 pager is due today	
September 19	3	Research questions, theory and data	
September 26	4	Literature and hypothesis	
October 3	5	Quantitative and Qualitative Approaches Annotated bibliography and literature review is due	
October 10	6	Guest lecture: Nicole Spiegelaar and concept mapping Peer reviews of annotated bibliography and literature review due today	
October 17	7	Variables 5-minute proposal update presentations	
October 24	8	Finding Ways to Measure Variables Pre proposal is due	
October 31		Reading Week – no classes	
November 7	9	Research design (3 spots available) Presentations of advanced pre proposals	
November 14	10	(7 spots available) Presentations of advanced pre proposals	
November 21	11	Ethics (3 spots available) Presentations of advanced pre proposals	
November 28	12	Drawing conclusions Final proposal due Double-blind peer review of research proposal in class	

IV EVALUATION/GRADING SCHEME

Assignment Name	Due date	Weight
Topic and draft research question (1 page)	September 12	5%
Annotated bibliography and literature review (8-10 sources, 6 pages)	October 3	10%
Pre-proposal (6-7 pages, excluding bibliography)	October 24	20 %
Final proposal (12- 15 pages, excluding bibliography)	November 28	50%
Participation (includes class discussion, peer review and proposal presentation)	Ongoing	15%

COURSE ASSIGNMENT DESCRIPTIONS

The assignments in this course are intended to provide you with the opportunity to cumulatively develop your thesis proposal. All the assignments and assessment criteria are described on Quercus. They should all be double spaced, and use Chicago Manual of Style, author-date citation format.

V COURSE POLICIES

Communication with Course Instructor

In addition to our class meetings, you are encouraged to **communicate individually** with the course instructor by e-mail or attending her weekly office hours.

Electronic Communications

The Quercus website will be used for posting the course syllabus and other materials related to the course. Any changes that we decide on during class meetings will be reflected in announcements or other material posted on the course website.

NOTE: All students are advised to have their notification preferences on Quercus enabled for Announcements so that you will be receiving course announcements sent via email. **You will be submitting all assignments online via the course website.**

I will provide comments electronically for each assignment. It is essential to regularly check your utoronto e-mail.

Please note the following specific guidelines on email:

- Use a "utoronto" account to ensure receipt of messages by the instructor
- Do not send emails from the Inbox tool on the Quercus website. Messages sent from the website Inbox tool may not be received.
- Use full sentences and proper grammar when composing messages.
- Ensure your questions/comments are clear and comprehensible.
- Do not email panicked questions about an assignment the night before it's due.
- Avoid unnecessary questions by first consulting the syllabus.
- I will answer emails as soon as I can sometimes right away, sometimes within 48 hours during the week. Longer questions are best dealt with in office hours.
- Please note that the instructor cannot proofread assignments via email before they are due.

Assignment Submission Policy

Late assignments will be penalized by 20% for each day past the due date (ie past 12.10pm on the date they are due). Late assignments will not be accepted without penalty, except when verifiable extenuating circumstances can be demonstrated.

Remarking term work policy

Requests for "remarks" must be submitted in writing within one week of the date the graded assignment was made available to students. Late requests will not be accepted. To request a remark, you must submit a written explanation detailing precisely why you believe your assignment should receive a different grade. Any remarking will involve the entire assignment, not simply the questions or portion you believe were scored improperly. The revised mark stands.

All students are **REQUIRED** to retain a personal electronic copy of all work undertaken for this course as well as *all rough materials*, *references*, *sources*, *and working notes* until the marked original has been returned.

VI TECHNOLOGY REQUIREMENTS

The course will be managed via Quercus (q.utoronto.ca). To access Quercus, you must have an active University of Toronto email address. It is expected that students will log onto Quercus regularly and set their email and Quercus accounts to receive notifications for all course announcements. 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. Crashed hard drives, broken printers, lost or corrupted files, incompatible file formats, and similar mishaps are common issues when using technology. They are not acceptable grounds for a deadline extension.

ACADEMIC INTEGRITY

On Academic Integrity:

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.

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/).

COPYRIGHT

If a student wishes to copy or reproduce lecture presentations, course notes or other similar materials provided by instructors, they must obtain the instructor's written consent beforehand. Otherwise, all such reproduction is an infringement of copyright and is absolutely prohibited. More information regarding this is available here:

https://teaching.utoronto.ca/resources/recording-of-lectures-and-class-sessions/

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 <u>Accessibility Services</u> 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 <u>University of Toronto Libraries</u>
- Resources on conducting online research through <u>University Libraries Research</u>
- Resources on academic support from the <u>Academic Success Centre</u>
- Learner support at the Writing Centre
- Information for <u>Technical Support/Quercus Support</u>

WEEKLY MEETINGS

Required Text: Wilkinson, Lori, Gary D Bouma, and Susan Carland. 2019. *The Research Process*. Fourth Canadian Edition. Don Mills, Ontario: Oxford University Press.

Other readings are found on Quercus, and hyperlinked in this syllabus

September 5: Seminar 1

What is knowledge? How do we know what we know? Why do we bother asking?

Course overview and discussion on the five organizing components of your research proposals:

- a. the research question
- b. significance
- c. literature review
- d. theory
- e. methods

Your preparation before class:

- 1. Reading: The Craft of Research, Prologue: Becoming a Researcher and Chapter 1
- 2. <u>Reading</u>: MIT Libraries: Selecting a Research Topic: https://libguides.mit.edu/select-topic
- 3. <u>Video:</u> Last Week Tonight with John Oliver: Scientific Studies, https://www.youtube.com/watch?v=0Rnq1NpHdmw
- 4. In preparation for next week install the following in your laptop:
 - a. **Zotero Standalone** from https://www.zotero.org/download/
 - b. The **Microsoft Word plugin** from https://www.zotero.org/support/word_processor_plugin_installation
 - c. **ZotFile** from http://zotfile.com/.

NOTE: Zotero has straightforward instructions on how to install the software at https://www.zotero.org/support/installation. However, anyone having trouble installing Zotero should get in touch with our librarian Jenaya Webb *before* the day of the class (jenaya.webb@utoronto.ca)

NOTE: Topic and draft research question 1 pager is due next week

September 12: Seminar 2

Research sources and citation workshop - BRING YOUR LAPTOP TO CLASS

Library resources workshop (led by jenaya.webb@utoronto.ca): How to find and assess different types of sources and materials, how to differentiate between sources, and how to narrow your research topic to a question. Citation management and plagiarism – workshop on how to use Zotero citation management so you never have to worry about plagiarism!

Your preparation before class

- 1. Topic and draft research question 1 pager is due today
- 2. Reading: The Craft of Research. Chapters 5 and 6
- 3. Reading: James C Scott "Intellectual Diary of an Iconoclast"

September 19: Seminar 3

Research questions, theory and data

In this seminar class we will examine what is the process of social research, what are researchable questions, what role theory plays in our search for understanding social phenomena and how do we go about collecting data and finding out if our hypothesis are correct?

Your preparation before class:

- 1. Reading: The Research Process, Chapters 1 and 2

September 26: Seminar 4 Literature and hypothesis

In this class we will be looking at how to narrow a research problem, or what we might call 'cutting a problem down to size,' how to state a problem in terms of dependent and independent variables or developing a research objective.

Your preparation before class:

- 1. Since we will be looking at cause and effect arguments during this class you should find and bring to class an example of a potentially erroneous cause-effect arguments connected to your research question (see this like comic: http://imgs.xkcd.com/comics/cell_phones.png)
- 2. Reading: The Research Process, Chapter 3

October 3: Seminar 5

Quantitative and Qualitative Approaches

By now you will have start to discover some of the strengths and limits of both quantitative and qualitative approaches. In this class we will discuss what kind of approach your research question requires. We will also do a peer review of the annotated bibliography and literature review.

Your preparation before class:

- 1. Consider how your research question should determine a quantitative, qualitative or mixed approach.
- 2. Reading: The Research Process, Chapter 4
- 3. Annotated bibliography and literature review due today

October 10: Seminar 6

Faculty Guest: Nicole Spiegelaar on Concept Mapping

Your preparation before class:

- 1. Peer reviews of annotated bibliography and literature review due today
- 2. Reading: Loring, P. A. (2020). <u>Threshold concepts and sustainability: Features of a contested paradigm</u>. *Facets*, *5*(1), 182-199.

October 17: Seminar 7

Variables

How do we reduce conceptual problems to empirical questions that we can measure, count, record or in some way observe?

Your preparation before class:

- 1. Come to class having first revised your research question, and identified the concepts embedded in that question. Second, identify which concept(s) are independent and which are dependent. In class, we will operationalize each concept so that they contain valid measures.
- 2. Reading: The Research Process, Chapter 5
- 3. 5-minute presentation: proposal update Each student will present their proposed project, progress thus far, and challenges to be tackled in the second half of this semester.

October 24: Seminar 8

Finding ways to measure variables

How do we measure variables? What is it that changes in the variables we are interested in observing, what instrument can we use to measure the way the variables vary and in what units can we report this variation? These may be straightforward questions with physical concepts such as speed or temperature, but what about concepts like class, sustainability or poverty?

Your preparation before class:

- 1. Come to class having identified what changes in the variables your interested in observing and how you can report that variation
- 2. Reading: The Research Process, Chapter 6
- 3. Pre proposal is due today

NO CLASSES OCTOBER 31 (READING WEEK)

November 7: Seminar 9

Research Design

A research design should be selected in line with the research question. We will review five basic types of research design.

Your preparation before class:

- 1. Reading: The Research Process, Chapter 7
- 2. Proposal Roundtable: Presentations of advanced versions of your pre proposals

November 14: Seminar 10

Your preparation before class:

1. Proposal Roundtable: Presentations of advanced versions of your pre proposals

November 21: Seminar 11

Research Ethics

Discussion of positionality, basic issues in research ethics, and a walk through of UofT's Research Ethics Board review process

Your preparation before class:

- 1. Proposal Roundtable: Presentations of advanced versions of your pre proposals
- 2. Reading: The Research Process, Chapter 9
- 3. This week we will consider research ethics in three cases:
 - a. The Stanford Prison Experiment: In preparation for this week's class, view Philip Zimbardo's 'Stanford Prison Experiment': 'Quiet Rage: The Stanford Prison Experiment' http://youtu.be/L_LKzEqlPto.
 - b. <u>Henrietta Lacks and the history of HeLa cells</u>: Read and watch as many of the following sources as you can
 - i. Skloot, Rebecca. 2010. *The Immortal Life of Henrietta Lacks*. Crown. Skloot presents an [stp] account of the life of the life of Henrietta Lacks to ethics, race, and medicine. See also: [stp] http://rebeccaskloot.com/the-immortal-life/
 - ii. For a review see: Margonelli, Lisa. 2010. 'Eternal Life.' *New York Times*, February Available at: http://www.nytimes.com/2010/02/07/books/review/Margonelli-t.html
 - iii. An interview with the author by Terry Gross at National Public Radio http://www.npr.org/templates/story/story.php?storyId=123232331
 - iv. The Agenda with Steve Paikin. Rebecca Skloot: The Story of HeLa https://youtu.be/tnUp0xQlfK8
 - c. <u>Bio-engineering</u>: What are the ground rules? Paul Wolpe discusses the impact of new medical and scientific breakthroughs that are not covered in traditional ethics texts.

https://www.ted.com/talks/paul root wolpe it s time to question bio engineeri ng?utm_campaign=tedspread-sharetrade-b&utm_engineeri&utm_source=tedcomshare

- 4. Using the cases above we will discuss ethics in pursuit of research including the
- following issues:
 - a. Research guided in the pursuit for profit and commercial gain versus altruistic motives
 - b. Informed consent
 - c. Property rights
 - d. Should Lack's family and living relatives be compensated?
 - e. Taking advantage of vulnerable minorities (Lacks was a poor African American woman). Is this comparable to cases involving sterilization in Canada (e.g., the Alberta Sexual Sterilization Act of 1928 (the eugenics movement) which targeted, among others, Aboriginal people, Métis, and those identified as 'mentally defective'?

NOTE: Final research proposal must be uploaded before the beginning of class next week

November 28: Seminar 12 Drawing Conclusions

In this class we discuss recalling your hypothesis or research purpose, reviewing what you found out and making statements about how your research contributes to a general area of concern.

Your preparation before class:

- 1. Final research proposal due today
- 2. Double-blind peer review of research proposal in class
- 3. Reading: The Research Process, Chapter 13