

Fridays 12-3 PM, Fall Term, Wetmore Hall (New College)

COURSE DESCRIPTION

The Department of Geography offers a mandatory course on topics of interest to physical geographers, and centered on the dissemination of information useful for the career advancement of Masters and Doctoral students. Seminar presentations from both U of T faculty and invited researchers will be given to introduce students to the Department's four physical geography research clusters. Practical information on how to write funding applications, conference abstracts and how to give effective oral presentations will also be covered. Discussions of multi-perspective issues such as the supervisor-student relationship, women in science, the peer-review system, authorship and evaluating success in academia will be led by students. Actual content of course will vary from year-to-year depending on the specialty of Instructors and interests of enrolled students.

COURSE INSTRUCTORS

Dr. Danny Harvey
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EVALUATION

Two instructors teach this course and **both** instructors will evaluate your work. You are required to submit your assignments in the appropriate folder on blackboard.

Evaluation	Due Time and Date	Value
1. Participation	Throughout the semester	10%
2. One-page research statement	5 Oct – 1 PM	10%
3. Four Seminar Summaries	See below	20%
4. Literature Review (PhD) or Research Proposal (MSc)	14 Dec – 11:59 PM	40%
4. Literature Review/Proposal Oral Presentation	Last Class or 2 nd last class	20%

1. **Participation:** Class participation marks are earned for attendance, and joining in class discussions and activities. Attendance (6 points) – Attendance will be recorded each week. It is very important that you inform the course instructors if you cannot make a class due to illness, field work activities, or attending academia conferences. Joining in class discussions and activities (6 points) - This component assesses your ability to

articulate comments and questions during class, your ability to make meaningful contributions to the discussion, and your ability to analyze and interpret key points raised in the class discussions.

2. **One-page research statement:** You will develop an original one-page research statement for this class that is intended to serve as a working document for your grant application (i.e. NSERC and OGS). The statement will be due on **October 5th**. Example topics will be presented in class to help you formulate your own research statement. Please discuss with your supervisor to make sure your research topic is in line with your MSc/PhD research. If time permits, you will be asked to give a 3-minute presentation of your research statement to the class.
3. **Four Seminar Summaries:** During the semester, you will be required to attend a few guest lectures on a topic either related to your research or to physical geography, including the physical geography Intersections Speaker Series seminars. Out of these talks or the guest faculty seminars in this course, you are asked to write four seminar summaries (5% each). Each of your summaries should be approximately 2 pages (double spaced) and consist of two parts:

Part I: A brief overview of the talk, outlining the need for the study in terms of which gap it fills, the question(s) asked, and the approach or main methods and important results found. Be sure to include a statement of the overall scholarly or societal significance of the findings.

Part II: An insightful assessment and analysis of the talk. For example, did the methods suit the questions asked, did it come to a reasonable conclusion based on the data, did it effectively argue a standpoint with supporting points, were there obvious omissions, biases or limitations of the work, was there sufficient novelty to the work, did it fill the research gap noted in the introduction, etc.?

As one of the goals in assigning seminar summaries is to be able to provide feedback on your writing, you are required to provide your first summary no later than class on **October 12th**, and the second one no later than class on **October 26th**. Please submit your summaries as hardcopy printouts.

4. **Literature Review (PhD) or Research Proposal (MSc)**

A literature review (for PhD students) is more than a summary of previous research. The literature review organizes previous work in order to develop a line of argument and establish the groundwork for your own study. While a literature review may use individual papers to illustrate broader themes, it is not an evaluation of each article, research project, or program separately. Refer to peer-reviewed papers for examples of effective literature reviews. Your review should lead you to the research objective(s), question(s) or hypotheses that will guide your work. **Please include these questions/objectives as a separate section at the end of the review.** We will **not** grade your research objective, questions or hypotheses at this stage of the course; rather, this is an opportunity to receive early feedback prior to the development of your research proposal. By addressing these considerations you are setting a foundation for your

research question and rationale for your research objectives. In this way, you can relate your research findings back to the literature (in the discussion section of your thesis/dissertation) in order to explain the significance or contributions of your research.

The research proposal (MSc students) you prepare for this class is intended to serve as a working document for the final thesis proposal that will be approved by your committee. The intent is that you can take this document, adapt and add where required by your supervisor and committee, and then prepare for approval of the final document.

The research proposal MUST include the following sections (word counts do *not* include any figures or tables that you may wish to include):

1. Introduction <ul style="list-style-type: none"> ▪ this section must include a statement of your research purpose and objectives (or questions and hypotheses) 	Maximum 400 words
2. Literature Review	Maximum 2,500 words
3. Research Design <ul style="list-style-type: none"> ▪ an overview of how you plan to carry out your research (e.g. study area, approach to data collection, data sources. Note that figures like flowcharts can be quite useful) ▪ we acknowledge that each student will be at a different stage of his or her research and will be accommodating of this in the evaluation, but all students are required to provide a preliminary design in his or her proposal 	Maximum 1,000 words
4. Scholarly and Societal Relevance <ul style="list-style-type: none"> ▪ clear statement of the anticipated contributions of your research to: i) knowledge (e.g. theory, methods, discovery); and ii) society (e.g. policy, practice, community) 	Maximum 350 words
5. Limitations or Constraints <ul style="list-style-type: none"> ▪ identify any potential limitations or constraints to your proposed research, and how you propose to address them 	Maximum 250 words
6. Dissemination <ul style="list-style-type: none"> ▪ identify potential sources of research dissemination, including specific journals, conferences you may present at, or other forms of dissemination, including to non-scholarly audiences 	Maximum 300 words. List or tabular format acceptable.
7. Budget <ul style="list-style-type: none"> ▪ provide a budget that identifies the anticipated expenses (e.g. field research, conference travel,) and expected sources of support associated with your proposed research 	N/A
8. Timeline	Gantt chart/tabular format required!
9. Literature Cited	N/A

5. Literature Review/Proposal Presentation:

The last one or two classes will be the presentation day(s). Presentations will be limited to 12 minutes in length, plus 3 minutes for questions. Marks for the oral presentation will be based on evidence of background research, provision of context, overall coherence and organization, and ability to generate interest and to respond to questions,

as well as presentation details such as ability to be heard, provision of clear visual materials, and ability to finish on time. We will discuss strategies for successful presentations in class and further details will be provided later in the term.

PRELIMINARY LECTURE SCHEDULE (the schedule may be subject to change according to the availability of the invited speakers.)

Date	1-2 pm	2-3 pm	3-4 pm	Recommended Readings
Sept 14	Course Overview	Writing a one-page outline of proposed research		<p>1. Stearns SC (1987) Some modest advice for graduate students. Bulletin of the Ecological Society of America 68(2): 145-150.</p> <p>2. Huey RB (1987) Reply to Stearns: some acynical advice for graduate students. Bulletin of the Ecological Society of America 68(2): 150-153.</p> <p>3. Schwartz, M. (2008) The importance of stupidity in scientific research. Journal of Cell Science. 121(11): 1771-1772.</p>
Sept 21	History of Physical Geography	Research paradigms and the philosophy of science		Aspinall, R. 2010. A century of physical geography research in the Annals. <i>Annals Assoc. Amer. Geographers</i> 100:5, 1049-1059.
Sept 28	How to read scientific literature – the Abstract	How to write an effective literature review		Torraco, R.J. (2009) Writing integrative literature reviews: Guidelines and examples. Human Resource Development Review 4(3): 356-367.
Oct 5	Joe Desloges	Discussion	Oral presentation schedule and tips	James LA, Harden CP, Clague JJ, Geomorphology of human disturbances, climate change, and hazards. <i>Treatise on Geomorphology</i> 13
Oct 12	Elements of a research proposal	Discussion		
Oct 19	Research Presentation: Tat Smith	St George Lab tours (Sarah Finkelstein)		<p>Mansoor, Maha, Inge Stupak and C.T. Smith. Private regulation in the bioenergy sector. Chapter 18. In: Yves Le Bouthillier, Annette Cowie, Paul Martin and Heather McLeod-Kilmurray (Eds.). "The Law and Policy of Biofuels". Publisher: Edward Elgar. (will upload to Quercas)</p> <p>Brenna Lattimore , C. Tattersall Smith , Brian Titus , Inge Stupak & Gustaf Egnell (2013): Woodfuel Harvesting: A Review of Environmental Risks, Criteria and indicators, and Certification Standards for Environmental Sustainability, <i>Journal of Sustainable Forestry</i>, 32:1-2, 58-88.</p>
Oct 26	Travel to	Research	Lab tours	Reference will be provided later

	UTM (KN2213, UTM)	Presentation (Igor Lehnherr)	(Phil Rudz)	
Nov 2	Research approaches in Physical Geography	Discussion		Whitfield, P.J. 2012. Why the provenance of data matters: assessing “fitness for purpose” for environmental data. <i>Canadian Water Resources Journal</i> 37(1): 23-36.
Nov 9	Jing Chen	Discussion		Chen JM, Mengers CH, Leblanc SG., 2005. Global mapping of foliage clumping index using multi-angular satellite data. <i>Remote Sens Env.</i> 97, 447-457. Chen JM et al. 2012. Effects of foliage clumping on the estimation of global terrestrial primary productivity. <i>Global Biogeochemical Cycles</i> 26, GB1019.
Nov 16	Travel to UTSC	Research Presentation: (Carl Mitchell)	Lab tours (Carl Mitchell)	Strickman R.J., Mitchell C.P.J. 2017. Methylmercury production and accumulation in urban stormwater ponds and habitat wetlands. <i>Environmental Pollution</i> 221, 326-334. https://doi.org/10.1016/j.envpol.2016.11.082
Nov 23	Student presentations	Student Presentations	Student Presentations	
Nov 30	Student Presentations	Student Presentations	Student Presentations	