#### **GEOG 514**

#### **CLIMATE CHANGE VULNERABILITY & ADAPTATION**

**COURSE OUTLINE: WINTER 2015** 

**Instructor:** Dr James Ford **Lectures:** Friday 11.35-2.25

**Location:** Room 308

Contact: james.ford@mcgill.ca, room 311 Burnside Hall (www.jamesford.ca)

### **COURSE DESCRIPTION**

Adaptation has emerged as a central component of climate policy at multiple levels from international climate negotiations to municipal planning. Understanding the vulnerability of human systems is central to efforts to develop adaptation interventions. This seminar will critically examine the theoretical and conceptual evolution of climate change vulnerability research, review methodological developments from the role of model-driven assessments to the rise of participatory case study research, and examine how vulnerability research can be integrated into adaptation planning. Examples from multiple regions and sectors will be drawn upon to highlight key approaches and developments.

This course is intended for graduate students and upper level undergraduate students interested in the human dimensions of climate change. Students should have taken relevant undergraduate environmental change course(s) and are expected to have a general understanding of the science of climate change.

### **LEARNING OUTCOMES**

The course will give students the training to get involved in climate change vulnerability and adaptation research and debates at an advanced level. It will provide a strong grounding for those developing a climate change vulnerability / adaptation theme in their master's work; for those with a more general interest, it will provide the skills and knowledge necessary for engagement in the field. Specifically, by the end of this course, students will be able to:

- 1. Identify and describe the development and evolution of a 'vulnerability science'
- 2. <u>Critically appraise</u> conceptual, empirical, and methodological approaches to vulnerability assessment and adaptation planning
- 3. <u>Apply</u> concepts and approaches to identify and characterize climate change vulnerability and develop adaptation interventions at multiple levels and for different sectors
- 4. Facilitate seminar discussion on selected themes

# **INSTRUCTIONAL METHOD**

There will be one 2 hour 50 minute seminar on Friday's every week. Seminars will involve instructor and student-led discussion on key topics. Strong emphasis is placed on student participation and it is expected that <u>all readings will be completed prior to class</u> and that students will prepare to be fully engaged in class discussion.

# **METHOD OF EVALUATION**

Student-led discussion sessions 15% Term paper proposal 5% Term paper 35%
Term paper presentation 10%
Term paper peer reviews 5%
Participation 30%

<u>Student-led discussion sessions:</u> In week's 5-10 students will be responsible for leading discussion of an assigned topic. Students will have a 45 minute slot in which they are expected to give a presentation on the topic (10 mins) and lead discussion.

Term paper proposal: A term paper proposal is due in week 4.

<u>Term paper</u>: A term paper will be due towards the end of semester. The term paper will be on a topic selected by the student, written using a journal article format, and no longer than 4000 words.

<u>Term paper presentation</u>: Weeks 11&13 have been assigned for students to present their term paper. This will consist of an oral presentation (10 minutes) followed by discussion. Prior to class (2 days before) students are required to email a draft of their proposal to class members for critique.

<u>Term paper peer reviews</u>: Students will be required to provide a formal review of one other student's paper. The review should be sent to the instructor and the student in question on April 12<sup>th</sup>.

<u>Participation</u>: Class participation is a requirement of the course. The participation grade will reflect quality of contributions (not just quantity) in class discussions and student-led discussion, and students will be evaluated based on evidence that readings have been completed and thought has gone into the readings.

#### IMPORTANT INFORMATION

Policies governing academic issues which affect students can be found in the Handbook on Student Rights and Responsibilities, Charter of Students' Right (online at <a href="http://www.mcgill.ca/files/secretariat/greenbookenglish.pdf">http://www.mcgill.ca/files/secretariat/greenbookenglish.pdf</a>).

# **Academic Integrity**

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/integrity for more information).

### Language of Submission

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

### **COURSE OUTLINE**

\*\*\*NOTE: Course outline may change\*\*\*

Date	Subject
Week 1	Course overview, introductions, students identify research
Jan 9 <sup>th</sup>	interests and reasons for taking course, term paper assignment described
Week 2	Adaptation: An overview
Jan 16 <sup>th</sup>	

Week 3	Are we adapting, can we adapt?
Jan 23 <sup>rd</sup>	
Week 4	Vulnerability: An overview
Jan 30 <sup>th</sup>	<u>Term paper proposal due</u>
Week 5	'Type 1' vulnerability assessment or 'impacts studies': <b>student-</b>
Feb 6 <sup>th</sup>	iea
Week 6	Political economy and political ecology approaches to
Feb 13 <sup>th</sup>	vulnerability: <b>student-led</b>
Week 7	Vulnerability science approaches: <b>student-led</b>
Feb 20 <sup>th</sup>	
Week 8	Methodology in vulnerability assessment: student led
Feb 27 <sup>th</sup>	
Week 9	Reading week
March 6 <sup>th</sup>	
Week 10	Research design in vulnerability assessment: <b>student led</b>
March 13 <sup>th</sup>	
Week 11	Term paper presentations
March 20 <sup>th</sup>	Term paper draft due **2 days** before class for students
	presenting in this class
Week 12	Term paper presentations continued
March 27 <sup>th</sup>	
Week 13	Implementing adaptation options and adaptive management
April 3 <sup>rd</sup>	Term paper reviews should be sent to the instructor and student
Week 14	_Course review based on simulation exercise

April 10 <sup>th</sup>	Term paper final version due	