

Environmental and Resource Studies/Science
TRENT UNIVERSITY

ERSC4350H: Climatic Change
2010-11 WI
Peterborough

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Course Description: Since the earth was first formed its climate has varied resulting in fluctuations in and evolution of the life-forms which have inhabited its surface. There is now consensus among the world's scientific community that human activities have had a direct impact on global climate and we are seeing a rate of warming that is unprecedented in the historical data record. This course will explore the concepts of climate and atmospheric change and focus primarily on the impacts of such change on natural ecosystems.

Communication: All communication regarding the course will be through announcements in the lectures or through Trent's WebCT system. The instructors will attempt to post lecture notes on WebCT before each lecture. Note all subject material will not be posted so attendance in class is strongly recommended. To access WebCT, students must be registered in the course, and have access to a computer (computer access is provided by various shared facilities throughout the university; if you need to use these and are unfamiliar with them, contact the Course or Laboratory Coordinator).

Lectures: 2 h/week

Seminars: ~fortnightly, 1/h week

Course Format:

Please check <http://www.trentu.ca/admin/mytrent/Timetable/TimeTableGen0.htm> to confirm times and locations.

Lecture schedule: SC 115

week	Date	lecture topic
1	Jan 11	Course details, course objective, IPCC summary 2007, Copenhagen, Cancun
2	Jan 18	Past climatic changes
3	Jan 25	Carbon cycle, greenhouse gases and the greenhouse effect
4	Feb 1	Observed climate variability and change; extreme events
5	Feb 8	Climate models, scenarios
6	Feb 15	Impacts: Arctic and boreal regions
	Feb 22	Reading week
7	Mar 1	Impacts: Coastal Regions/Regional Impact/Human Health
8	Mar 8	Impacts: Canada
9	Mar 15	Impacts: Other areas of the world
10	Mar 22	Climate and interactions with other stressors
11	Mar 29	Mitigation: Kyoto Protocol, Copenhagen, Cancun, Durban and beyond
12	Apr 5	Summary

Assignment and grading: CCW A1

week s	start date	lab topic	Weighting (%)	Due date	deliverable
1 - 5	Jan 14	Carbon in lakes lab	20	Feb 8	full report
1 - 12	Jan 14	Tutorials	15	open	Presentation/report
5 - 11	Feb 11	Research Proposal	25	Mar 31	full report
		In-class Quiz/assignment (2)	10	N/A	Short answer
2-12	N/A	Final Exam	30		

University Policies

Academic Integrity:

Academic dishonesty, which includes plagiarism and cheating, is an extremely serious academic offence and carries penalties varying from a 0 grade on an assignment to expulsion from the University. Definitions, penalties, and procedures for dealing with plagiarism and cheating are set out in Trent University's *Academic Integrity Policy*. You have a responsibility to educate yourself – unfamiliarity with the policy is not an excuse. You are strongly encouraged to visit Trent's Academic Integrity website to learn more: www.trentu.ca/academicintegrity.

Access to Instruction:

It is Trent University's intent to create an inclusive learning environment. If a student has a disability and/or health consideration and feels that he/she may need accommodations to succeed in this course, the student should contact the Disability Services Office (BL Suite 109, 748-1281, disabilityservices@trentu.ca) as soon as possible. Complete text can be found under Access to Instruction in the Academic Calendar.

Late Penalties:

Late assignments will be penalized at 5% per day (excluding weekends) up to a maximum of one week. Assignments will not be accepted after this time. Extensions will only be given with valid written documentation.

Please see the Trent University academic calendar for University Diary dates, Academic Information and Regulations, and University and departmental degree requirements.

Last date to withdraw from Winter term half courses without academic penalty in 2010-11 is March 11, 2011.