



**ENVIRONMENTAL AND RESOURCE STUDIES**  
**ERST-POST 2100H - Environmental Science and Politics**  
 Fall 2010

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**Office hours:** Monday 12 – 2 p.m.  
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 and by appointment, or drop in

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**Course times and locations:**

Lectures:	Monday	3:00 – 3:50	DNA B104
	Wednesday	2:00 – 3:50	ECC 201
Seminars:	Wednesday	11:00 – 11:50	BL 107.1
	Wednesday	12:00 – 12:50	BL 107.1

**What this course is about**

Much of our awareness about the environment, and about environmental issues, comes to us through science. This fact is reflected in the many courses in environmental science offered by the ERS program, and in the research programs of ERS scientists. By estimating the effect of fishing on fish stocks, or by assessing the risks involved in using toxic chemicals, or by evaluating the significance of carbon dioxide to the global climate (to note a few examples), science helps us to identify the impacts of human activity on the world, and some of the means by which these impacts can be moderated.

But the appropriate role of science in environmental politics is also often a matter of debate. Several issues are evident, such as: What is to be done when scientific information is uncertain, or when "the experts" disagree? What is the difference between matters of science, and matters of politics, and who should make this distinction? How can we use science, while also making sure that all interests in society are considered in environmental policy? Are scientists the only reliable sources of knowledge about the natural environment, or do others, including indigenous people or resource users, have valuable knowledge? The purpose of this course is to examine these kinds of questions, and through these questions, to consider the relation of science to environmental policy

and politics, both in terms of its role in helping to address environmental issues, and in terms of problematic aspects of this role.

This course is for students in both environmental science and environmental studies, as well as students with other majors, who want to understand better how science fits into the "real" worlds of politics and decisions. No prior experience in science is expected.

This course includes two one-hour lectures each week, and a seminar every second week. There are no seminars during the first week of classes.

### Course Assignments

There is one assignment, one study project, a group presentation, reading questions, and a final exam.

The first assignment is called "Identifying the Roles of Science". Identify an environmental issue for which science is relevant in some way. Find at least two articles in the recent media (magazines, newspapers, blogs, less than one year old), that discuss this issue, and that include some mention of science. **When choosing articles, be sure that they are intended for a general audience, not for a scientific audience. Check with me if you are at all uncertain about whether your articles are appropriate.** Write a brief essay (c. 500 words) discussing the roles of science in this issue (as presented in these articles). Consider, for example, the following aspects of these articles: What kinds of scientific knowledge are mentioned in these articles? How is this knowledge used to support particular arguments regarding preferred actions or policies? How is this information used to dispute claims made by other parties? Include copies of the two articles with your assignment. This article is pass/fail, and is worth 5%.

In the study project you will examine a current environmental topic that is relevant to the relation between science and policy. More information on this project, including a list of topics, will be available early in the term. There are two due dates for this project. The first date is for a first draft. It will be returned the following week, with my suggestions for improvements. The final version will then be due two weeks later. No marks will be given for the first draft; however, there will be a 10% deduction from the final essay mark if a first draft is not handed in. There is a penalty of 2% per weekday for all late essays.

The group presentation will consist of presenting for 20-25 minutes on a selected topic in the seminar, and then leading the discussion afterwards. Groups will be organized in the first seminar.

The reading questions will be based on the course text and selected online sources. It will be your responsibility to hand in written answers to 15 of these questions. Which 15 is up to you. 10 of these answers will be due on November 3, and the last five by the last class (i.e., December 8).

The final exam will include questions based on the lectures and the reading material.

### Grading Scheme

First Assignment [due September 29]	5%
Study project [first due date: November 10; second due date: December 1]	30%
Seminar participation	5%
Seminar presentation	10%
Seminar questions [10 due on November 3; 5 due December 8]	15%
Final exam [in December exam period]	35%

### **Quality of Written Work**

The ability to write clear, well organized, grammatical and properly documented academic essays is essential. I urge you to contact the Academic Skills Centre if you would like assistance in improving your writing skills. It would also be helpful to consult the Skills Centre's publications that discuss writing. Please feel free, as well, to consult with me about your writing. I like reading, and commenting on, draft papers.

### **The ERST-POST2100H Environmental Policy**

I like to minimize the use of paper in this course. Accordingly, all written assigned work is to be handed in via myLearningSystem (WebCT). I will also distribute this syllabus, assignments, lecture notes, information about essay topics, reading questions, etc. through myLearningSystem, whenever possible.

### **Academic Integrity**

Academic dishonesty, which includes plagiarism and cheating, is an extremely serious academic offense and carries penalties varying from a zero grade in 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](http://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](mailto:disabilityservices@trentu.ca)) as soon as possible. Complete text can be found under Access to Instruction in the Academic Calendar.

### **Required Texts**

This course has one required textbook, available in the Trent Bookstore: Stephen Bocking, Nature's Experts: Science, Politics, and the Environment (Rutgers University Press, 2004). Other readings will be available online. These readings will be essential for the seminars and the exam, and should be useful in preparing the essay. Please do your best to keep up-to-date with the readings.

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## **COURSE SCHEDULE**

**Section I: September 13 – 15: Introduction.** Syllabus, class mechanics, and some key issues about science.

Bocking, Nature's Experts, Chapters 1 & 2.

**Section II: September 20 – 29 (note: no class, September 27): Science and environmental ethics.**

What contribution can science make to our ideas and values concerning the environment?

Bocking, Nature's Experts, Chapter 3.

- Other readings, to be assigned.

**Section III: October 4 – 13: Science and natural resources management.** What is the role of science in the use and protection of natural resources?

Bocking, Nature's Experts, Chapter 4.

- Other readings, to be assigned.

**Section IV: October 18 – 20: Science in the Environmental Policy Process.** What is involved in making the connection between scientific knowledge and the environmental policies of governments? (guest lecturer: Stephen Hill)

<< Reading Week >>

**Section V: November 1 - 3: Science in Northern Canada.** How has science addressed environmental & natural resource problems in northern Canada?

- Readings to be assigned.

**Section VI: November 8 – 17: Science and risk.** Faced with a multitude of potential environmental hazards and risks, from pesticides to electromagnetic fields, how do we determine which should be of highest priority?

Bocking, Nature's Experts, Chapter 6.

- Other readings, to be assigned.

**Section VII: November 22 – December 1: Science and the international environment.** How can science contribute to addressing regional and global problems, such as climate change?

Bocking, Nature's Experts, Chapter 5.

- Other readings, to be assigned.

**Section VIII: December 6 – 8: Communicating, Using, and Paying for Science.** How is science communicated, and what difference does it make who does the communicating? What difference does it make if science is paid for by industry, government, or other actors? How can we ensure that science is used in an appropriate and effective manner?

Bocking, Nature's Experts, Chapters 7 & 8.

- Other readings, to be assigned.

**Section IX: December 8: Last class.** Review and preparation for the exam.