

School of Arts & Science SOCIAL SCIENCES DEPARTMENT GEOG 220

Natural Resource Systems Fall 2010

COURSE OUTLINE

The course description is online @ http://camosun.ca/learn/calendar/current/web/geog.html

Ω Please note: the College electronically stores this outline for five (5) years only. It is strongly recommended you keep a copy of this outline with your academic records. You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

(a)	Instructor:	Tim Elkin		
(b)	Office Hours:	Mon 10.30-11.30am, 1.30-2.30pm; Tues 9.30-10.30am, 1.30-2.30pm; Wed		
		10.30-11.30am		
(c)	Location:	E238		
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2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

Upon completion of this course the student will be able to:

- 1. Describe and explain the major concepts underlying the management of natural resources.
- 2. Apply these management concepts to the management of specific natural resource systems.
- 3. Identify and discuss significant contemporary factors that influence the management of natural resources.

3. Required Materials

Roberts J., 2004, Environmental Policy Routledge

Course Manual

4. Course Content and Schedule

(This section can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

Week starting

Week 1 Sept. 6-

Introduction to the course

Course overview

Reading

Chui-Ling Tam, Canada in the World: Globalization, Development, and Environment in Mitchell B., 2010, (ed.) Resource and Environmental Management in Canada (Toronto: Oxford) (in course manual)

THEME: JURISDICTION OF NATURAL RESOURCES IN CANADA

Week 2 Sept. 12-

CLASS 1: LECTURE

Jurisdiction of natural resources

International and national jurisdiction; Constitution Act; federal and provincial jurisdiction; Indigenous rights Reading

Mitchell B., Policy and Practice – Issues, Challenges and Opportunities in Mitchell B., 2010, (ed.)

<u>Resource and Environmental Management in Canada</u> (Toronto: Oxford) Ch. 1, pp. 1-18 (in course manual)

Harrison K., Federal-Provincial relations and the Environment: Unilateralism, Collaboration and Rationalization in VanNijnatten D. and R. Boardman (eds.) <u>Canadian Environmental Policy: Context and Cases</u>, 2002, Ch. 7 pp. 123-144 (in course manual)

CLASS 2: DISCUSSION

Federal versus provincial control of resources

Federal government should take ownership of Canada's oil and gas resources to ensure management in the national rather than provincial interest

Video: Canada for Sale

THEME: UNDERSTANDING CONCEPTS

Week 3 Sept. 19-

CLASS 1: LECTURE

Defining natural resources: Environmental capital and environmental services; recognizing complexity and uncertainty; sustainability; resource depletion

Reading

Roberts, Ch. 1: So what's the problem?

Commission on Resources and Environment, Tatshenshini-Alsek Land Use (in course manual)

National RoundTable on Environment and Economy, <u>Boreal Futures</u>, Ch. 2 *Canada's Boreal Today* pp.8-15 (in course manual)

CLASS 2: LAB

Case study: Examining resource depletion: The case of biodiversity

Reading

Thomas Homer-Dixon, 2006, <u>The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization,</u> Chapter 6: Flesh of the land (in course manual)

Week 4 Sept 26

CLASS 1: LECTURE

Understanding the causes of overuse of natural resources: Worldviews: role of values in determining attitudes and behaviour; resource ownership; Hardin's tragedy of the commons; examining resource scarcity and depletion

Reading

Roberts, Ch. 2: The roots of environmental problems.

Mary Page Webster, The Windy Craggy Experience, Fraser Institute (in course manual)

In-class exercise: Profiling natural resources in BC economy (in course manual)

CLASS 2: LAB

Case study: Working with conflicting values and interests

Sealing and fisheries: Conflict of Worldviews

Reading: Mulrennan, Monica, 1998, Atlantic Sealing: Immoral slaughter or sustainable harvest? (in course manual)

Video: Sealing Fate

Week 5 Oct 5

CLASS 1: LECTURE

Examining goals for resource management: Addressing resource scarcity (Malthus; limits to growth study) and the emergence of the concept of sustainable development; ecosystem approach; assessing sustainability

Reading

Roberts, Ch. 3. Sustainable development and the goals of environmental policy

Pauly, D. and R. **Chuenpagdee**, 2007, *Fisheries and coastal systems: the need for integrated management* in P. Nemetz (ed.). <u>Sustainable Resource Management</u> (Edward Elgar Publishing) Ch. 6, pp. 171-185 (in course manual)

Video: Ecology and development

CLASS 2: LAB

Case Study: Examining an ecosystem approach: Case of Banff National Park Reading

Mulrennan, Monica, 1998, Banff National Park: Defining Ecological Integrity (in course manual)

Video: National Parks Forever Wild

Week 6 Oct 11

CLASS 1

THANKSGIVING HOLIDAY

CLASS 2

ONLINE DISCUSSION 1: Students choose 1 of 3 topics: First Nations rights to resources; resource depletion: oil; resource depletion: fisheries

THEME: INTERNATIONAL CONTEXT IN RESOURCE MANAGEMENT

Week 7 Oct 18

CLASS 1: LECTURE

International environmental policy making

Reading

Roberts, Ch. 7 International environmental policy making

CLASS 2: LAB

Case study: International policy and polar bear protection

Reading

Mulrennan, Monica, 1998, Polar Bears: Politics of Protection (in course manual)

Week 8 Oct 25

CLASS 1

Test

CLASS 2

ONLINE DISCUSSION 2: Students choose 1 of 3 topics: Malthusian versus Ricardian management; globalization and free trade; internationalization and the Arctic

THEME: ROLE OF SCIENCE AND ECONOMICS IN RESOURCE MANAGEMENT

Week 9 Nov 1

CLASS 1: LECTURE

Science, Technology and Policy

Science and policy making; uncertainty, precautionary principle and adaptive environmental management Reading

Roberts, Ch. 4. Science and Technology: Policies and Paradoxes

Kenneth Rogoff, Technology, complexity, economy, catastrophe.

Globe and Mail Jun 02, 2010

CLASS 2: PROJECT (In GP lab)

Project 1: Examining feasibility of renewable energy

Week 10 Nov 8

CLASS 1

ONLINE DISCUSSION 3: Students choose 1topic (not already chosen) from the 6 previously listed topics

CLASS 2

RESEARCH PAPER

Week 11 Nov 15

CLASS 1: LECTURE

Economics and resource management

Reading

Roberts, Ch. 8. Environmental economics

Video: Mark Jaccard, 2009, Why pricing carbon pollution is good public policy

CLASS 2: PROJECT (in GP lab)

Project 2: Addressing climate change at the local level: Transport cost analysis relating to transportation choice

THEME: DECISION MAKING IN RESOURCE MANAGEMENT

Week 12 Nov 22

CLASS 1: LECTURE

Natural resources and decision making

Decision making process; environmental assessment Examining Energy Policy in BC and the Site C Project

Reading

Meredith T., Assessing Environmental Impacts in Canada in Mitchell B., 2004, (ed.) Resource and Environmental Management in Canada (Toronto: Oxford) Ch. 17, pp. 467-496

CLASS 2: LAB

Case study: Examining Quebec's Great Whale Project

Reading

Mulrennan, Monica, 1998, Great Whale: Lessons from a Power Struggle (in course manual)

Video: Riding the Great Whale (NFB)

Week 13 Nov 29

RESEARCH PAPER DUE

CLASS 1

Case study: The Tatshenshini-Alsek wilderness preservation decision

Part 1: Examining resource interests

Reading

Interim Report on Tatshenshini-Alsek Land Use, British Columbia: Volume 2: Appendices Columbia. Commission on Resources and Environment, 1993 (in course manual)

Part 2: Making the decision

Reading

BC Hydro, Making Decisions

T. L. McDaniels, *An analysis of the Tatshenshini-Alsek wilderness preservation decision*, <u>Journal of Environmental Management</u> (1999) 57, 123–141 (pp.123-132 extracted in course manual)

CLASS 2

Case Study: Energy Policy in BC: Making a decision on the Site C Project

Part 1: Examining resource interests

Reading

BC government, 2007, The BC Energy Plan (in course manual)

Rex Weyler, 2010, What's wrong with the BC Energy Plan? BC Citizens for Public Power (in course manual)

Northeast News 2009 (in course manual) The Many Faces of BC "Hydra" BC Geographers Link Big Dams with Topocide

Shaffer, Marvin, *Clean Energy Act will cost British Columbians*. Globe and Mail June 14 2010 (in course manual)

Week 14 Dec 6

CLASS 1

Case Study: Energy Policy in BC: Making a decision on the Site C Project

Part 2: Making the decision

Reading

BC Hydro, 2009, Peace River Site C Hydro Project: Stage 2 Summary Report (in course manual)

Northeast News 2009 Karl Mattson's Film a Rallying Cry against Site C (in course manual) Video: Keeping the Peace

CLASS 2

Test

5. Basis of Student Assessment (Weighting)

(This section should be directly linked to the Intended Learning Outcomes.)

LABS (30% of course mark)

CASE STUDIES

These exercises are based on examination of concepts and issues associated with resource management case studies. Case studies are ideal for providing opportunities to see the relationship between theory and practice, to recognize how knowledge of concepts from course curriculum helps to provide understanding of practice of resource management. This work is not realistic unless students have read the set readings beforehand.

In-class cases

Several cases are examined by the whole class. The text has case studies in each chapter that students will discuss in-class on a regular basis. There are some additional readings identified in the outline. In weeks 2 and 3, we examine the case of the boreal forest to help understand sustainability, and values and interests in resource management. In week 13 we examine the Windy Craggy mining proposal to illustrate decision making in resource management. In week 14 we examine the energy policy in BC, and the decision of whether to approve Site C in response to increasing electricity demand in the province. Participation in these cases is required for marks, and a report is typically expected at the end of class.

In-class/online cases

Five case studies are examined in more detail to specifically examine the relationship between theory and practice: Four cases from the Mulrennan text, <u>A Casebook of Environmental Issues in Canada</u>; and one chapter from Homer-Dixon's book, <u>The Upside of Down</u>.

Students are allocated a group at the beginning of the semester, and each group is allocated a case study, listed below.

Date introduced
Week 3 Sept. 21
Week 4 Sept. 28
Week 5 Oct 7
Week 7 Oct 20
Week 12 Nov 24

Case studies are first discussed face-to-face <u>in-class</u> as a lab exercise. Each group will have an alternating chair, who will direct the group's discussion. This is a structured discussion in which the students address structured questions and are first introduced to 10 concepts relevant to the case study. The overarching objective is to examine practice in resource management, and to see the connection between practice and theory. At the end of class, for each case study, the chair hands in a report, with a summary of findings (i.e. answers to questions and discussion of concepts). Marks are allocated for being part of this exercise.

The <u>online</u> component involves the use of a **wiki**. For the group that has been allocated the case study, students continue to work cooperatively using the wiki to develop a comprehensive definition of each of concept. The work will be completed using **Wikispaces** (http://geog220-1.wikispaces.com). The purpose here is to provide students the opportunity to work cooperatively online, in a small group, to define concepts. Think *Wikipedia* as the process for creating the concept definitions. Students in the group first create **drafts** of the 10 concept definitions in Wikispaces. **These definitions must be completed within 2 weeks from the date case study is introduced. The group has until the last class of the semester to create final definitions. All students are expected to create at least one draft definition, and to be involved in creating (through online editing) all 10 final definitions.**

ONLINE DISCUSSION

Discussion exercises are designed for discussion of **values** that relate to course curriculum, to explore differences in the way natural resources are valued. Students engage in three topic discussions (from a choice of six), using D2L's discussion board. The procedure and dates are as follows:

For each online discussion, students choose one topic from the choices available. The topics are phrased in the form of a thesis statement. Students read the works identified for each topic. Consider both sides of the thesis, both for and against. **By one week from the date of discussion** (Discussion 1 – posting by Oct 20; Discussion 2 - by Nov 3; Discussion 3 – by Nov 15), post a short essay (250 words) on the D2L discussion board, which describes your own view (position). The essay should address your values that lead you to your position; ask yourself the question, what is that I value that leads me to my position. **Essays not posted on time will not receive marks. After the in-class discussion you have two weeks to read three other students' essays and post a response to their point of view.** Use 100 words a guide for your response. The response postings are for peer review only. I will not be grading them but checking to ensure completion, following the guidelines above. Students not posting a substantive contribution will not receive marks.

Online discussion 1 Week 6 Oct 13

Students choose one of three topics.

1. First Nations rights to resources

First Nations aboriginal rights to natural resources is just

Reading

Booth A. and N. Skelton, *First Nations Access and Rights to Resources* in Mitchell B., 2010, (ed.) Resource and Environmental Management in Canada (Toronto: Oxford) Ch. 3, pp. 80-103 (in course manual)

Poelzer G., Aboriginal Peoples and Environmental Policy in Canada: No Longer at the Margins in VanNijnatten D., and R. Boardman (eds.), 2002, <u>Canadian Environmental Policy</u>: **Context and Cases** (Oxford), Ch. 5 pp. 85-106 (in course manual)

Video: Is the crown at war with us? (NFB)

2. Resource depletion: Oil

Peaking oil is the biggest problem facing the Canadian economy and way of life

Reading

Hughes David H., The Energy Issue: A More Urgent Problem than Climate Change? in Homer-Dixon T., 2009, (ed.), 2009, Carbon Shift (Vintage Canada) p. 58-95 (in course manual)

Thomas Homer-Dixon, 2006, <u>The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization,</u> Chapter 4: So long, cheap slaves (in course manual)

3. Resource depletion: Fisheries

Canada's fisheries policy provides an exemplary model for other nations Reading

Hoogensen, G. *The Canadian Fisheries Industry: Retrospect and Prospect* in Howlett M., and K. Brownsey (eds.), 2008, <u>Canada's Resource Economy in Transition</u> (Emond Montgomery), Ch. 6 pp. 103-119 (in course manual)

Tyedmers P., R. Watson, and D. Pauly, 2005, Fueling Global Fishing Fleets. <u>Ambio</u>. 34 (8): 635-638 (in course manual)

Gwyn Morgan, Blaming salmon farms for decline makes for one fishy tale. Globe and Mail May 31 2010 (in course manual)

Doug Saunders, *Trade, how the world can fix the fisheries: A dose of cod-liver oil.* Globe and Mail May 26, 2007 (in course manual)

Online discussion 2 Week 6 Oct 13

Students choose one of three topics.

1. Ricardian versus Malthusian policy perspectives

Economic growth should be the prime focus of public policy to achieve development goals Reading

Oli Brown., 2008, <u>Is Green Great: Balancing the demands of protection and human needs</u> (in course manual)

Paul Driessen, 2008, Human security versus environmental activism (in course manual)

William E. Rees Globalization, trade and migration: Undermining sustainability Ecological Economics Volume 59, Issue 2, 12 September 2006, pp. 220-22 (in course manual)

2. Globalization and free trade

Globalization and free trade are good for Canada, and good for the world

Reading

Eberts, D., Globalization and Neo-Conservatism: Implications for Resource and Environmental Management in Mitchell B., 2004, (ed.) Resource and Environmental Management in Canada (Toronto: Oxford) Ch. 2, pp. 54-79 (in course manual)

McDougall J., From Black Gold to Blue Gold: The Emerging Water Trade in Howlett M., and K. Brownsey (eds.), 2008, Canada's Resource Economy in Transition (Emond Montgomery) (in course manual)

Todd Hirsch, <u>Goodbye, globalization</u>. <u>Globe and Mail</u> May. 22, 2009 (in course manual)

3. Internationalization and the Arctic

The Canadian government is right to give first priority to protection of Canadian resource interests in the Arctic (over climate change)

Reading

Jess Worth, Who Owns the Arctic? New Internationalist July 2009 Issue 424 (in course manual)

Canada pushes past North Pole in Arctic survey, 2009, Globe and Mail (in course manual)

Thomas Homer-Dixon, 2008, <u>Climate change, the Arctic and Canada: Avoiding yesterday's analysis of tomorrow's crisis</u> (in course manual)

<u>Instructions for posting on D2L</u>: From course home, select *Discussions*. This will take you to the forum, *Resource and Environmental Issues*. You will see the six discussion topics. Over the course of the semester you are posting on three. To post a message, double click on the topic, select 'Add Message', type in the subject topic, compose your essay (you can copy and paste your Word document but make sure you use the button that allows you to keep the Word formatting), and select 'Submit'. To respond to other student postings, double click the message, select 'Reply, compose your response, and select 'Submit'.

RESEARCH PAPER (25% of course mark)

Students will write a paper on <u>one</u> of the six discussion topics. Approach your topic by formulating a thesis based on the underlying research question, then carry out research to support your thesis. The paper will have the usual academic structure of introduction, discussion and conclusion.

This is an opportunity to draw on course concepts; demonstrate your understanding by identifying and discussing relevant course concepts in your paper.

You must include discussion of works that support your arguments (a minimum of <u>six in total</u>). **It is required that students cite the readings associated with the topic in course outline.** A minimum of <u>three</u> works must be peer-reviewed. All works must be cited in an approved bibliographic style.

Use 1500 words as a guide for the length of your paper. Research paper is due in class November 29.

PROJECTS (10% of course mark)

There are two projects relating to problems in resource and environmental management. Each is explained in the course manual. Both projects require the use of software, and are introduced in the GP lab. Projects are listed below:

Project 1: Examining feasibility of renewable energy (introduced Week 9 Nov 3)

Project 2: Addressing climate change at the local level: transport cost analysis relating to transportation choice (introduced Week 11 Nov 17)

A short report is expected for each project, based on set questions. Students have the option to work in pairs for both projects, with one report. Digital copies of the project questions are available online http://online.camosun.bc.ca. **Project reports are due two weeks from start date of the project.**

TESTS (35% of course mark)

There will be two tests, completed in-class. The format of the exams will be discussed in class.

Assignment evaluation summary:

Labs (in-class and on-line exercises)	= 30%
Projects	= 10%
Paper	= 25%
Tests	= 35%

6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College for approval.)

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	Incomplete: A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	In progress: A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 rd course attempt or at the point of course completion.)
cw	Compulsory Withdrawal: A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services, or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED