



## 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:	Tues 12.30-120pm; Thurs 12.30-1.20pm		
(c)	Location:	E238		
(d)	Phone:	370-3115	Alternative Phone:	
(e)	Email:	elkint@camosun.ca		
(f)	Website:			

### 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. Demonstrate a knowledge of ecological systems and the impact of human activity on those systems.
2. Demonstrate an understanding of key environmental issues.
3. Demonstrate a knowledge of courses of action which address environmental concerns.

### 3. Required Materials

Raven, Berg and Hassenzahl, 2012, Environment (8th edition), Toronto: Harcourt

Course manual

### 4. Course Content and Schedule

#### INTRODUCTION / EXAMINING THE HUMAN RELATIONSHIP WITH NATURE

Week starting

**May 6-  
Week1**

CLASS 1 Introduction to the course: course outline  
 The Environment: What is the problem?

**Lab:** Geography of pollution

**Class discussion:** Human impact on the environment.

**What are the most important environmental problems facing us today?**

CLASS 2 Introducing environmental science and sustainability  
 Ecological Footprints  
 Text: Chap 1

**Lab:** Environmental science: research and the scientific method; geography of environment; human impact on the environment; measuring ecological footprints

**Class discussion 1:** Recognizing ecological limits

**Do Canadians need to recognize ecological limits and reduce their ecological footprint?**

Context: "The world will no longer be divided by the ideologies of 'left' and 'right,' but by those who accept ecological limits and those who don't.", [Wolfgang Sachs](#), Wuppertal Institute

Canada's ecological footprint is one of world's largest, at 7.1 ha per person (*Living Planet Report 2008*); yet its bio-capacity is also very large, at 14.5 ha per person, giving Canadians an ecological reserve of 7.4 ha, and eco-credit of 150% (bio-capacity relative to footprint). Can it be said that Canadians are in fact living within limits?

**Class discussion 2:** Scientific assessment, risk analysis and the precautionary principle: Examining risks associated with major projects such as oil development.

**Is oil sands development in Alberta an acceptable risk?**

Context: The 2010 oil spill resulting from BP's drilling in the Gulf of Mexico highlights risk associated with rapidly developing science and technology, and, more importantly, its regulation. As Kenneth Rogoff states, *The disaster ... poses a much deeper challenge regarding how modern societies regulate complex technologies. The speed of innovation seems to be outstripping government regulators' capacity to deal with risks, much less anticipate them.*

In reviewing Andrew Nikiforuk's book, [Tar Sands: Dirty Oil and the Future of a Continent](#), Greystone Books states:

*Advancements in technology and frenzied development have created the world's largest energy project in Fort McMurray where, rather than shooting up like a fountain in the deserts of Saudi Arabia, the sticky bitumen is extracted from the earth. Providing almost 20 percent of America's fuel, much of this dirty oil is being processed in refineries in the Midwest. This out-of-control megaproject is polluting the air, poisoning the water, and destroying boreal forest at a rate almost too rapid to be imagined.*

**Required reading:**

Kenneth Rogoff, *Technology, complexity, economy, catastrophe*. [Globe and Mail](#) Jun 02, 2010 (See Course Manual)

Video: H2Oil

**May 13-  
Week 2  
CLASS 1**

Addressing environmental problems: Policy, economics and worldviews

Text: Chap 2

**Lab:** Addressing environmental problems: Policy and economics; worldviews.

**Class discussion:** Addressing environmental problems

**How 'green' is our campus? What environmental problems exist on the Camosun campus? What solutions can you identify to these problems?**

Video: Subdue the Earth

**UNDERSTANDING ECOSYSTEMS**

**CLASS 2**

Structure and function of ecosystems: Ecosystems and Energy; Ecosystems and the Physical Environment

Text: Chap 3, 4

**Lab:** Structure and function of ecosystems: Energy flow

**Class discussion 1:** Whaling.

**Is whaling an unacceptable practice that should be stopped immediately?**

Context: The hunting of whales (whaling) has a long history. Traditional hunts by small groups of primarily indigenous peoples have been replaced by high tech factory-style whaling. Until the modern era, whale populations were rarely at the point of extermination. Now, populations of most of the large species and many of the smaller species are at critical levels. Should whaling in international waters be allowed to continue? Should whaling be limited to closely monitored hunts by indigenous people? Consider the opposing views of whalers and environmentalists who are against whaling.

**Class discussion 2:** Agriculture and the use of chemical fertilizers.

**Should society use legislation to prohibit farmers using chemical fertilizers? Is there an alternative to chemical fertilizers?**

Video: Whale Mission

**May 20-  
Week 3**  
CLASS 1

**Online assignment**

Changing climate: Implications for BC's forest ecosystems

Podcast with BC botanist and geologist Richard Hebda.

*He Sees Our Hot Future*

<http://theyee.ca/Opinion/2010/01/19/RichardHebda/>

CLASS 2:

Structure and function of ecosystems: Ecosystems and Living Organisms.  
Text: Chap 5

**Lab:** Structure and function of ecosystems: Physical and Living Worlds

**Class discussion:** The nature of community.

**Is community based mostly on competition or cooperation between members?**

**May 27-  
Week 4**  
CLASS 1

**Test**

CLASS 2

Ecosystems of the World  
Focus on forest ecosystems  
Text: Chap 6

**Class discussion:** Protecting BC's temperate rainforest ecosystem

**Should cutting of BC's old growth temperate rainforest be stopped immediately?**

**Lab:** Examining ecosystems; Examining Canada's ecosystems using GIS

**HUMAN ACTIVITY AND ECOSYSTEM CHANGE**

**June 3-  
Week 5**  
CLASS 1

Human population  
Text: Chap 8

**Online discussion:** Overpopulation

**The current human population crisis causes or exacerbates all environmental problems, including energy issues and climate change: What is the solution?**

**Lab:** Human population dynamics

Videos: Hans Rosling, [No more boring data](#); The population bomb

CLASS 2

Food  
Text: Chap 18

**Class discussion:** Meat eating and the environment

**Should Canadians be required to follow a vegetarian diet?**

**Required reading (discussion):**

Michael Bond, 2008, *the trouble with meat*, [Engineering and Technology](#) (See Course Manual)

**Lab:** Calculating your Ecological Footprint

**Required reading (lab):**

Wackernagel, Mathis, [How Big is Our Ecological](#)

[Footprint?](#) (See

Course Manual)

Video: Ecological Footprint

**June 10-  
Week 6**  
CLASS 1

Climate change  
Text: Chap 20

**Lab:** Climate change

**Required reading (lab):**

Thomas Homer-Dixon, 2010, *Introduction* in Homer-Dixon T. (ed.), Carbon Shift: How Peak Oil and the Climate Crisis will change Canada (Vintage Canada) (See Course Manual)

Video: Sun Come Up

**Class discussion:** Canada's response to climate change:

**How should Canada respond to the problem climate change? For example, should Canada's efforts at addressing climate change be more far-reaching, with much more stringent carbon reduction targets? Given historic emissions does Canada have the same or more responsibility than nations such as China and India?**

Context: *The Conservative Prime Minister made no effort to hide his scepticism over the [Kyoto] treaty and his determination not to allow carbon caps or carbon taxes to undermine the Canadian economy. Still, polls showed that most Canadians were deeply concerned about climate change and wanted the government to take action. (Globe and Mail, Dec 13, 2011)*

**Required reading (Discussion):**

Ronald Wright, 2010, *Foreword* in Homer-Dixon T. (ed.) Carbon Shift: How Peak Oil and the Climate Crisis will change Canada (Vintage Canada) (See Course Manual)

CLASS 2            Research paper completion

**June 17-  
Week 7**

CLASS 1            **Test**

**Research paper due in class**

CLASS 2            **Online assignment**  
Reflecting on the Future

**5. Basis of Student Assessment (Weighting)**

Tests	- 30%
Lab work	- 35%
Discussion questions/online assignments	- 15%
Research paper	- 20%

**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	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		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](http://camosun.ca) for

information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> 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	<i>In progress:</i> 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. <i>(For these courses a final grade will be assigned to either the 3<sup>rd</sup> course attempt or at the point of course completion.)</i>
CW	<i>Compulsory Withdrawal:</i> 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](http://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