

# School of Arts & Science SOCIAL SCIENCES DEPARTMENT GEOG 100

Environment and Sustainability

Quarter or Semester/Year

## **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/Wed 12.30-1.30pi | m                  |              |
| (c) | Location:     | E238                 |                    |              |
| (d) | Phone:        | 370-3115             | Alternative Phone: | 778-678-0585 |
| (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:

- 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

The required text for the course is Raven, Berg and Hassenzahl, 2012, <u>Environment (8th edition)</u>, Toronto: Harcourt

Several required readings are indicated in the topic outline below. These readings, along with the labs, are available in the **course manual**. Students should purchase the **course manual** from the bookstore.

#### 4. Course Content and Schedule

## INTRODUCTION / EXAMINING THE HUMAN RELATIONSHIP WITH NATURE

Week starting

May 5-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?

Required reading (discussion):

WWF, Living Planet Report 2008

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?

Required reading (discussion):

Kenneth Rogoff, Technology, complexity, economy, catastrophe.

Globe and Mail Jun 02, 2010 (See Course Manual)

Video: H2Oil

May 12-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?

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 19-Week 3

CLASS 1: HOLIDAY

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 26-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

#### UNDERSTANDING ECOSYSTEM CHANGE

June 2-Week 5

CLASS 1 Human population

Text: Chap 8

Class 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

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

Video: Ecological Footprint

June 9-

Week 6 Climate change

CLASS 1 Text: Chap 20

Lab: Climate change

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?

CLASS 2 Test

Focus on research paper

June 16-Week 7

CLASS 1 Research paper completion

CLASS 2 Reflecting on the future

Research paper due in class

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

Tests - 30%
Lab work - 40%
Discussion questions/online assignments - 10%
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<br>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<br>Grade | Description   |
|--------------------|---|
| ı                  | <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                 | 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 <sup>rd</sup> 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 <a href="mailto:camosun.ca">camosun.ca</a>.

## 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