

INSTRUCTOR: Kelly Moote
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Office: Fisher 344D
Office hours: Mondays: 8:30 – 10:15 am

LEARNING OUTCOMES:

On completing the course students will be able to:

- Define key concepts in environmental management, including natural capitalism, precautionary principle, sustainable development, preventive approach, and demand management.
- Demonstrate an ability to use specific techniques and tools in environmental management including carbon footprint measurement tools and environmental management systems.
- Identify the importance of using techniques such as environmental reporting, environmental auditing and stakeholder engagement.

CONTENT:

The course introduces the theory and practice of environmental management at the urban and regional scale. A preventive approach is explored and applied to industrial and urban systems. Specific techniques and tools are examined including full cost accounting and cost-benefit analysis, carbon footprint measurement, environmental auditing, environmental management systems and stakeholder engagement.

APPROACH:

This is an applied, participatory course; the emphasis is on the *application* of theory to practice in the field of environmental management. Guest speakers - consultants and government officials – are invited to discuss current practice. Several case studies and site visits within the local urban region are introduced to allow the student to critically examine local issues and policy.

An emphasis is placed on project work carried out in small groups.

COURSE READINGS:

Exerpts from the following works:

Barrow, C.J., 1999, Environmental Management: Principles and Practice Routledge
Hawkin, Paul, and Amory and Hunter Lovins, 2008, Natural Capitalism Rocky Mountain Institute <http://www.rmi.org/>
Jackson, Tim, 1996, Material Concerns Routledge
Roseland M., ed., 1997, Eco-City Dimensions. Gabriola Island, BC: New Society

INTERNET ACCESS

Course material is found online at the Camosun D2L site <http://online.camosun.ca/>.
All assignments will be submitted on-line.

EVALUATION SUMMARY

Projects:

Project 1:	Carbon Footprint	5%
Project 2:	Low Impact Development	20%
Project 3:	Environmental Management Systems	25%
Project 4:	Transportation Issue Comparative Analysis	15%
Project 5	360° Review and Analysis	25%
Group Evaluations:		10%

COURSE OUTLINE AND READINGS

Week 1

Jan 4 Classes not started.

Jan 6 **Course and Class Introductions**
Project #1 assigned: Individual Carbon Footprint

Week 2

Jan.11 **Discussion: Project #1 Results**
Project # 2 assigned: Low Impact Development

Readings

Walker, Lyle A. and William E. Rees, 1997, *Urban Density and Ecological Footprints: An Analysis of Canadian Households*, in Roseland M., ed., *Eco-City Dimensions*. Gabriola Island, BC: New Society.

Jan. 13 **Key Principles of Environmental Management**

Readings

Barrow, C.J., 1999, *Introduction*, in *Environmental Management Principles and Practice*, New York: Routledge.

Hawkin, Paul, Amory and Hunter Lovins, 2008, *The next industrial revolution* in Natural Capitalism RMI <http://www.rmi.org/>

Week 3

Jan. 18 **Tour of Low Impact Development Site – TBD**

Jan. 20 **Low Impact Development**

Guest Speaker: Wendy Macdonald
Sustainability Consultant
Advicus Group Consultants Inc.

Project 1: Written Report Due

Readings

UBC, Sustainable urban landscapes, *setting the context: water, air, people* (pp. 8-15)

http://www.jtc.sala.ubc.ca/projects/DesignManual/Setting_context1.pdf

Week 4

Jan 25 **Tour of University of Victoria**

Jan 27 **Science, Policy and Environmental Management**

Readings

UBC, Sustainable urban landscapes, *setting the context: policy and planning, the emerging context for sustainability* (pp. 16-23)

http://www.jtc.sala.ubc.ca/projects/DesignManual/Setting_context2.pdf

Week 5

Feb 1 **Project #2 Group Presentations**
Assign Project #3: EMS at Camosun

Feb 3 **Environmental Management Systems**

- Environmental Management Systems – ISO 14001
- Natural Step

Project #2: PowerPoint presentation due

Readings

International Standards Organization, *ISO 14001 - Environmental management systems – Specification with guidance for use*, 1996.

Stapleton, Philip J., and Margaret A. Glover, *Environmental Management Systems: Implementation Guide for Small and Medium-Sized Organizations*, 2001. **NOTE: 201 PAGES**

Week 6

Feb 8 Project #3: EMS at Camosun

Feb 10 **Environmental Management Systems – the Municipal Sector**

Guest Speaker: Mark Boysen
Climate Action Coordinator, District of Saanich

Readings

A Natural Step Case Study: Canmore, Alberta, www.thenaturalstep.org.

Week 7

Feb 15 Project 3: EMS at Camosun College

Feb 17 **Environmental Management Systems – the Federal Government**

Invited Guest Speaker: Daryl Lawes

Week 8

Feb 22 **Project 3: Presentation of Results**

Assign Project #4: Transportation Issue Comparative Analysis

Feb 24 **Making Environmental Management Work**

- Stakeholder engagement
- Collaboration
- Creating behavioural change

Readings

Barrow, C.J., 1999, *Participants in Environmental Management*, in *Environmental Management Principles and Practice*, New York: Routledge.

Week 9

Mar 1 Project 4: Transportation Issue Comparative Analysis

Mar 3 **Environmental Management – Municipal Sector** (community engagement)

Invited Guest Speaker: CRD Liquid Waste Management Department

Project #3 is due

Week 10

March 8 Project 4: Transportation Issue Comparative Analysis

Assign Project #5: 360° Review and Analysis of an Environmental Issue

March 10 **Transportation Policy**

Invited Guest speaker: Todd Litman, Director, Victoria Transport Policy Institute

Readings

Evaluating Transportation Land Use Impacts, Todd Litman, 2008,
<http://www.vtpi.org/landuse.pdf>

New Lessons from the Old World, Jay Walljasper, E MAGAZINE March / April 2005 (pgs 27-33).

Pedal Power, CBC Documentary.

<http://www.cbc.ca/documentaries/doczone/2009/pedalpower/index.html>

Week 11

March 15 Project 4: Transportation Issue Comparative Analysis

March 17 **The Role of Community**

Readings

Moore J., *Inertia and Resistance on the Path to Healthy Communities*, in Roseland M., ed., 1997, Eco-City Dimensions. Gabriola Island, BC: New Society

Week 12

March 22 Project #5: 360° Review and Analysis of an Environmental Issue

Project #4 presentation is due

March 24 **Corporate Environmental Reporting**

- Full-cost accounting
- Triple-bottom line

Guest Speaker: **TBC**

*Jag Bilkhu, Senior Business Strategy Advisor
Project Delivery, Engineering, Aboriginal Relations and
Generation
BC Hydro*

Readings

Making a Profit and a Difference. New York Times, October 2006
<http://online.camosun.ca/>

Jackson, Tim, 1996, Material Concerns, Ch. 5: *Easy Virtues*. Routledge

Hawkin, Paul, Amory and Hunter Lovins, 2008, *Capital Gains* in Natural Capitalism RMI <http://www.rmi.org/>

Week 13

March 29 Project #5: 360° Review and Analysis of an Environmental Issue

March 31 **Course Summary and Evaluations**

Week 14

Apr 5 Easter Monday

Apr 7 **Project #5 is due**

Evaluation (10%)

Students are expected to fully participate in all classes, field trips and project work. For the projects students will work in small groups to tackle a problem and present a report based on their findings. At the completion of each group project, students will hand in an evaluation of student member participation in the project.

INFORMATION FOR PROJECT REPORTS

All REPORTS must be **type written**.

All REPORTS should be written from a '**professional**' perspective, as if you were working as a consultant and submitting a professional report to a client. This is an opportunity to practice technical writing skills, in presenting the findings of your project work.

All REPORTS must have:

- **Introduction:** explaining the nature of the problem and its relation to the larger context of environmental management. What is important here is that you are able to explain how the project, and its associated problem, is related to the theory of environmental management.
- **Methodology:** how did you, or your team, complete the assignment; was secondary research used? Primary?
- **Discussion** of relevant theory and results.
- **Recommendations** (if appropriate)
- **Conclusion**, summarizing findings

It is expected that students will consistently cite course readings, and other research, in their reports, to demonstrate understanding of the theoretical context of their work.

Note that all work must consistently use an accepted bibliographic style, including works cited from the Internet.

Any report handed in late (within 3 days) will lose 5%; up to a week 10%. Very late submissions (more than one week) will not be accepted.

GRADING

Letter grade	Numeric grade	Description
A+	90-100%	Superior Level Achievement
A	85-89	
A -	80-84	
B+	77-79	High Level Achievement
B	73-76	
B -	70-72	
C+	65-69	Satisfactory Achievement
C	60-64	Sufficient Achievement
D	50-59	Minimum level of achievement
F	0-49	Minimum level not achieved

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, Registrar's Office or the College web site at <http://www.camosun.bc.ca>

ACADEMIC CONDUCT POLICY

There is an Academic Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.

www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html