

CEM 400 Fundamentals of Environmental Management

Course Syllabus

This course focuses on key approaches, processes, challenges, and problems related to the field of environmental management. Through the introduction of a wide variety of course materials, on-going discussions, and assignments, students will become familiar with, and equipped to engage in, the cooperative resolution of complex environmental issues.

When one thinks about the natural environment, often images of majestic waterfalls, pristine forests and wild animals wandering endless savannah come to mind. In recent years, these images are being overshadowed by the impact of human activities on the environment - images of melting polar caps, reports of depleted fish stocks, satellite imagery showing large tracts of burning forests due to anthropogenic effects, and increased incidence of diseases like SARS and swine flu that are a result of globalization and other factors. We are becoming increasingly aware of the far-reaching impacts of humans on the natural environment.

The study of environmental management requires an understanding from a multitude of perspectives, drawing upon skills from numerous areas. The effects of environmental management can be critical for both developed and developing countries, often requiring different approaches and decision-making processes. Through an interdisciplinary approach, CEM 400 engages students in various environmental issues and imparts a set of skills they can utilize in the decision-making process for environmental management.

Required Course Text

Environmental Change and Challenge: A Canadian Perspective. Fourth Edition 2012

Philip Dearden and Bruce I. Mitchell, Oxford University Press (Paperback)

ISBN-13: 9780195446259; ISBN-10: 0195446259

The 2012 edition is available through the University of Toronto Bookstore. Please order your book as soon as possible so that you have the required reading material prior to the first class. The U of T Bookstore has several available copies. You can order the text by internet, in person or by mail. The url for the Bookstore is <http://www.uoftbookstore.com/>. If you wish to pick up your textbook, please call the bookstore first to ensure it is in stock. The address and telephone number for the University of Toronto Bookstore can be found on the website above.

You might also contact your local bookstore to see if they have copies, or order through Amazon.ca or Indigo.Chapters.ca.

Additional Readings

Additional material will be assigned and available through electronic links or in .pdf format. You may need to download the free version of Adobe Reader if you currently do not have this (see <http://www.get.adobe.com/reader/> for link to free Adobe Reader download). Keeping up with the readings is essential in the course.

Course Objectives

The goal of this course is to give the student an understanding of environmental management from various scales, including the Canadian and global context. The student will study the natural science, political nature and policy approaches to the environment, management strategies, the process of decision-making in the environmental context, and various paradigms and sets of values which affect the strategies employed.

Historically, the focus of environmental management has been narrow, centred on how to control and utilize the environment for the benefit of humans. Today, the focus has broadened. There is the need to understand environmental issues and processes from a more encompassing perspective. In many sectors of the economy, it is necessary to understand potential solutions to environmental problems and their management. Through course content, readings and discussions, students will become familiar with important historical and current issues in environmental management, as well as approaches and processes used in the strategies employed in environmental management. By the end of this course, the student should be able to:

- understand a variety of perspectives on environment issues and how they impact on environmental management;
 - know key historical documents and events in the study of the environmental issues and how they have shaped the current perspective in environmental management;
 - connect the current strategies employed in environmental management to a number of case studies and on multiple scales (local, national and global);
 - know the key organizations and bodies which study, regulate and manage the environment;
 - understand the interrelationships between various components in decision-making and underlying values;
- describe the various approaches to resource environmental management; and
- understand the nature of problems associated with sustainable development.

Assignments and Grading Scheme

The grade you obtain from this course will depend on your research and writing skills, critical thinking ability, and participation in the discussion forums. There are three short papers and one final long paper. At the end of week 8, you will be required to hand in a proposal for your final long paper, which will include an overview and a list of several key references. This is to ensure that you are on the right track for the paper. In addition, you must participate actively in discussion forums weekly.

The grading scheme is as follows:

-Three short papers (in Weeks 3, 5, and 7; 10% for the first paper and 15% each for the second and third papers) - 40%

-Participation in weekly discussion forums (throughout course) - 20%

-Proposal for final long paper (Week 8) - 5%

-Final long paper (Week 10) - 35%

The short papers will be based on the readings from the course, or will draw from additional articles, and will allow the student to synthesize materials in a critical and succinct manner. These papers will be 1000 to 1200 words each. The purpose of these assignments is for you to utilize your writing and critical thinking skills, and to explore the content of the course in a formal manner. The longer paper will be a research paper based on the approval of your proposal. You will receive detailed instructions for both the short and long papers once the course has started.

Overall assessment

The program requires that students maintain a grade of 70% (B-) or higher in the course work to continue in the program. A high level of quality is expected in the work produced by students. For evaluation purposes, work will be graded based on the following criteria:

For an A+ grade (90%+): Exceptional performance: creative and original thinking; excellent organization, capacity to analyze and synthesize; superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.

For an A- (80-84%) to A (85-89%) grade: Strong performance: solid evidence of original thinking; good organization, capacity to analyze and synthesize; good grasp of subject matter with sound critical evaluations; evidence of broad knowledge base.

For a B (73-75%) to B+ (76-79%) grade: Good performance: evidence that the subject matter has been grasped; some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with the literature

For a B- grade (70-72%): Intellectually adequate performance: student who is profiting from her or his educational experience; understanding of the subject matter and ability to develop solutions to simple problems in the material.

Student Obligations

a) Students are expected to participate "in class" every week with a **minimum** of twice-weekly participation in the discussion forum. Participation counts for 20% of your overall mark and will be based on regular contributions to the weekly discussion forums, so do participate regularly. A rubric on the measure of quantity and quality of your participation in the discussion forum will be used for evaluation, as shown below:

Promptness and Initiative	Does not respond to most postings; rarely participates freely	Responds to most postings several days after initial discussion; limited initiative	Responds to most postings within a 24 hour period; requires occasional prompting to post	Consistently responds to postings in less than 24 hours; demonstrates good self-initiative
Delivery of Post	Utilizes poor spelling and grammar in most posts; posts appear "hasty"	Errors in spelling and grammar evidenced in several posts	Few grammatical or spelling errors are noted in posts	Consistently uses grammatically correct posts with rare misspellings
Relevance of Post	Posts topics which do not relate to the discussion content; makes short or irrelevant remarks	Occasionally posts off topic; most posts are short in length and offer no further insight into the topic	Frequently posts topics that are related to discussion content; prompts further discussion of topic	Consistently posts topics related to discussion topic; cites additional references related to topic
Expression Within the Post	Does not express opinions or ideas clearly; no connection to topic	Unclear connection to topic evidenced in minimal expression of opinions or ideas	Opinions and ideas are stated clearly with occasional lack of connection to topic	Expresses opinions and ideas in a clear and concise manner with obvious connection to topic
Contribution to the Learning Community	Does not make effort to participate in learning community as it develops;	Occasionally makes meaningful reflection on group's efforts; marginal effort to become	Frequently attempts to direct the discussion and to present relevant viewpoints for consideration by	Aware of needs of community; frequently attempts to motivate the group discussion; presents creative

	seems indifferent	involved with group	group; interacts freely	approaches to topic
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For the weekly discussion forums, the basic expectation in the course is a minimum of two substantive posts per week. Posts can include your own ideas and thoughts on the weekly topic and related course material, as well as responses to the posts of others in the class. Please be aware that, as noted in the rubric above regarding promptness and initiative, *when* you make your posts is important; posts made earlier in the week count more in the grading scheme than those made at the end of the week, for the reason that the early posts represent more of a contribution to the class discussion. Do not leave your posts to the last minute!

b) Students are expected to meet deadlines for written assignments. The assignments will have specific due dates. If you are unable to meet one of the deadlines (for a legitimate reason such as illness), please e-mail the course instructor in advance of the deadline. If you do NOT notify the instructor regarding your late assignment in advance, your paper will still be accepted, but a late penalty will apply.

c) Students are advised to check the Announcements page on the course website every few days for any new announcements posted and to check their utoronto e-mail accounts regularly for course-related information and updates sent by the course instructor.

Forum Etiquette

In discussion forums, remember to *think, discuss, and debate* from a multitude of perspectives. Both the instructor and the student will use language that is scholarly and professional.

Express yourself *clearly, accurately, and in an intellectual* rather than in a personal fashion. Discussion forums are designed for you to ask questions and gain further knowledge. Remember to reason intelligently with the instructor and other students. As the study of environmental management is a broad field and is continually evolving, please feel free to give your view or interpretation based on your own experiences.

Develop *awareness* of your own ethnocentrism and make conscious efforts to ameliorate it. Keep in mind that the course materials will come from a wide cross-section of fields of study and may use jargon that is not familiar to you. Seek to understand the subtleties of these new terms to gain a deeper understanding of the material being presented. Please ask about concepts or terms that you do not understand.

Remember, if you have a question, it is likely someone else has the same question. Also, be conscious of the language you use when you speak about race, ethnicity, and gender. And be careful to avoid any bigoted or exclusive language.

Students who express themselves *inappropriately* or attack others personally in the discussion forums will lose their points for participation, and possibly their privilege to continue. Most students are considerate and respectful of others, but once in a while, someone acts inappropriately which can detract from the experience of others.

MODULE BREAKDOWN

MODULE 1 - Introduction to environmental management

This introductory module will allow students to become familiar with each other and the delivery of the course. The module content will examine the multiple approaches to the environment and the need to examine the context of environmental problems from an interdisciplinary perspective. Through the examination of important historical writings, and the current perspective of the environmental resources and change in Canada, the student will gain a base from which to launch into the course.

MODULE 2 - Understanding the environment

Environmental problems are often examined and measured through natural science. In this module, the student will review the scientific approach to understanding the natural environment through the examination of the ecosphere and human activity on the ecosphere.

MODULE 3 – Introduction to planning and management

In modules 3 and 4, we will look at a variety of factors important to environmental management. This week, we will examine the role of the government in environmental policy (both in the Canadian and international context). In addition, we will introduce several strategies in environmental management, notably the systems approach, adaptive management, impact assessment and dispute resolution.

MODULE 4 – Planning and management II

In this second week of overview of environmental planning and management, students will be introduced to the general processes in decision making, including the rational approach. In addition, we will discuss risk, valuation and ethics.

MODULE 5 – Resource and environmental management I

This week, and for the next several weeks, we will review a number of resources and how they are managed within the Canadian context. Module 5 will examine climate change, oceans and fisheries.

MODULE 6 –Resource and environmental management II

Continuing the theme from last week, this module will introduce forests and agriculture.

MODULE 7 - Resource and environmental management III

This week, we move on to discussing water systems and minerals and energy resources.

MODULE 8 - Resource and environmental management IV

In this final module examining Canadian resource and environmental management, we discuss urban environmental management and endangered species and protected areas.

MODULE 9 – Environmental change and challenge revisited

In this module, we will review the potential of various actors, including organisations, communities and individuals, to contribute to environmental management.

MODULE 10 – Course conclusion

We finish the course with a summary of what we have discussed and questions for the future.