

TRENT UNIVERSITY
ERST-CAST 3780H

CANADIAN NATURAL RESOURCE ECONOMICS AND PROJECT PLANNING
2011-12, Winter Term
Peterborough

Instructor

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There will be no fixed office hours but you may make an appointment in class or by e-mail to arrange a time. Ideally students with questions should arrange to meet with the instructor before or after the lecture or seminar sessions.

Secretary

Deb Mills ESC B202 748-1011x7199 dmills@trentu.ca

Course Format

The course material will be delivered through weekly lecture and fortnightly seminar (with exception: see seminar schedule).

Lecture: Tuesday, 18:00 – 19:50; Location: SC 203

Seminar 1: Tuesday, 16:00 – 17:50; Location: GCS 110

Seminar 2: Tuesday, 20:00 – 20:50; Location: GCS 115

Optional timing (TBD in class) Seminar 3: Tuesday, 21:00 – 21:50; Location: GCS 115

Background

Execution of natural resources based projects is complex and depend upon many different factors. These factors include the economics of resource production and use, scarcity, social values, public perception, political climate, public policy, and uncertainty. Natural resource projects, therefore, require careful planning, execution, monitoring, and control. Balancing the competing project constraints such as scope, quality, schedule, budget, resources, and risk can all have a positive or negative impact on a project or program affecting its sustainability, viability, and profitability.

This course has several objectives:

1. To understand natural resource management and economics in a changing climate and from the points of view of policy-makers, society, and project implementers
2. To provide a foundation in natural resource economics
3. To understand the complexity and professional practice of natural resource projects
4. To gain an understanding of tools and methods used in professional project planning and management.

The course will provide, through lectures, seminars, and guest presentations, insights into the complexity, challenges, and professional practice of managing natural resource projects. This course will focus on forestry, water, and energy resources. The course is also intended to provide students with an understanding of the various components as well as the tools and techniques used in professional project management. It is assumed that the participants will have some basic understanding of natural resource management issues and economics, although not necessarily gained through a dedicated course on the subject.

Texts and Reading

A text is not necessary for this course. Lecture slides will be made available, which will cover the fundamentals necessary for this course.

However recommended readings include:

Field, Barry C. 2008. *Natural Resource Economics. An Introduction*. Second Edition. Waveland Press Inc. Illinois.

Project Management Institute. 2008. *A guide to the project management body of knowledge (PMBOK Guide)*. Fourth Edition. Pennsylvania

Harold Kerzner. 2009. *Project Management: A systems approach to planning, scheduling, and controlling*. John Wiley & Sons, Inc. New Jersey.

Additional readings will be posted on WebCT either in whole or as references to publications that are accessible electronically.

Assignments and Evaluation

Project formulation (RFP preparation) (due Jan 31)	20%
Seminar article review and presentation (2) and participation	15%
Final project proposal/plan (due Mar 27)	30%
Project proposal presentations (Mar 27 during seminar/April 3 lecture session)	10%
Final Exam	25%

Request for Proposal (RFPs): The first assignment is writing a RFP. This assignment involves working in a team. RFP is often the first step in a project development and planning process. RFP is often used to secure the services of another organization for their expertise and/or to transfer risk, through a competitive bidding process, to complete a task, activity, or project according to certain desired specifications.

Seminar: The class will be divided into seminar groups (A, B, C, D) which will meet fortnightly. Each group will have no more than 15 students.

For assignment, students are required to select 2 articles from journals, magazines, blogs, or other published sources pertaining to ONE of the natural resource seminar topic (identified elsewhere), write a 500 word commentary outlining and critiquing the particular resource economic and/or project management issues. The articles will be submitted along with the commentary for grading. During the seminar, students will make a 10-minute presentation to their seminar group. During the first class, students will decide the seminar topic for their article review.

Sharing of ideas, views, opinions, and expertise as well as debating issues is an important part of resource and project management. Grade for the seminar component of the course is therefore not based on attendance alone. Participation is required. Participation may involve prepared oral presentation, discussion, and sharing of information and experiences. There are a few seminar sessions where the entire class will be required to attend. It is recommended that groups not attending a particular seminar utilize the time to work on their team projects.

Project Proposal/plan Writing

The third assignment will involve responding to an RFP as a consultant group by developing and submitting a project proposal. Project proposals demonstrate a consultant's understanding of the project and provides an opportunity to showcase their ability to do the work as well as to clarify the scope, schedule, costs, risks, and deliverables. This exercise will utilize many of the project planning and management components discussed in class.

Working together to accomplish the project goals and objectives is important for success. For both the RFP and proposal writing assignment, teams will appoint a Project Manager based on consensus. All communications to the instructor regarding the team project should be directed through the project manager. However, if there are project issues, concerns, and other matters that might affect individual performance, students are encouraged to contact the instructor directly. Teams will have opportunity to discuss approach and proposal content with the instructor as required. Team project and oral presentation will be a group grade. The oral presentations will be conducted during the final class of the term.

Submission of deliverables on time is an important element of project execution. The penalty for late assignments is 5% of the value of the assignment per weekday – each weekend day counts as one weekday. Other than for the oral presentations, the deadlines for the assignment may be extended for short periods upon request at least 7 days before the deadline. All team members must agree for team project extensions. Please make such requests by e-mail memo to the instructor. Reasons for requesting a time extension as well as a revised deadline must be provided. The instructor will respond by e-mail, approving or disapproving the request, so that a written record of the request and response is created.

Quality of deliverables (written and oral presentations) is emphasized in the course. As in a professional setting, assignment submissions will be evaluated for writing and quality of presentation.

Exam: A Final exam will be held at the end of the term as per University schedule (April Exam Period)

Academic Integrity

Academic dishonesty, which includes plagiarism and cheating, is an extremely serious academic offence and carries penalties varying from a 0 grade on an assignment to expulsion from the University. Definitions, penalties, and procedures for dealing with plagiarism and cheating are set out in Trent University's Academic Integrity Policy. You have a responsibility to educate yourself – unfamiliarity with the policy is not an excuse. You are strongly encouraged to visit Trent's Academic Integrity website to learn more – www.trentu.ca/academicintegrity.

Access to Instruction

It is Trent University's intent to create an inclusive learning environment. If a student has a disability and/or health consideration and feels that he/she may need accommodations to succeed in this course, the student should contact the Disability Services Office (BH Suite 132; 748-1281; disabilityservices@trentu.ca) as soon as possible.

Classes

Weekly lectures will be 1hr 50min in duration. The lectures will also include guest presentations by professional practitioners in the field of natural resource and project management. Depending on the number of students enrolled, the class will be divided into 3 seminar groups. Each seminar group will attend a 50 minute session. The time allocated for seminars will include individual presentations on articles relating to a natural resource management topic and related discussions. The topics and schedule for seminars will be discussed during the first class.

Lecture: Tuesday, 18:00 – 19:50; Location: GCS 115

Seminar 1: Tuesday, 16:00 – 16:50; Location: GCS 110

Seminar 2: Tuesday, 20:00 – 20:50; Location: GCS 115

Optional timing (TBD in class) Seminar 3: Tuesday, 21:00 – 21:50; Location: GCS 115

Lecture Schedule (1 hr 50min):

Jan 10 Introduction to natural resource economics, planning, and management

Jan 17 Project scope and time management

Jan 24 Climate change and natural resource management; Applicability of systems and adaptive principles to resource management

Jan 31 Project cost and quality management

Feb 7 Fundamentals of resource economics, Part 1

Feb 14 Fundamentals of resource economics, Part 2

Feb 21 Reading Break

Feb 28 Natural resource planning: Forestry

Mar 6 Project team management

Mar 13 Natural resource planning - Water

Mar 20 Project communications and risk management

Mar 27 Natural resource planning – Renewable energy

Apr 3 Project Proposal Presentations

Seminar/exercise schedule and topics (Seminar topics are tentative and will be confirmed during the first class)

Jan 10 All Groups (Group A,C and B,D): Developing an RFP

Jan 17: All Groups (Group A,C and B,D): Topic TBD

Jan 24: Group A and B: costing and scheduling exercises

Jan 31: Group C and D: costing and scheduling exercises

Feb 7: Group A and B: Forest resource economics and management

Feb 14: Group C and D: Forest resource economics and management

Feb 21: Reading Break

Feb 28: Group A and B: Water resources management in a changing climate

Mar 6: Group C and D: Water resources management in a changing climate

Mar 13: Group A and B: Renewable energy resource economics and management

Mar 20: Group C and D: Renewable energy resource economics and management

Mar 27: All Groups: Project Proposal Presentations

Apr 3: All Groups: Project Proposal Presentations