

Econ 5516B Resource Economics Course Outline

Winter, 2019

Instructor: **Peter Burton**

Time/Location: M, W **1135–1255 LSc B4082**

Office Hours: **W 1000-1130**
Th 1330-1430
A11 6206 University Avenue

Course Description:

This course is designed as an introduction to the theory and application of resource economics. Topics include; social and intertemporal decision making, the basic theory of non-renewable resource exploitation (including Hotelling's theory of the mine), a basic forestry model (i.e., the Faustmann model) including extensions which allow for benefits that arise from standing forests, the Gordon-Schaeffer model of the fishery and optimal dynamic harvesting.

Course Prerequisite

A graduate micro-theory course: Econ 5000, 5509 or 6609

Course Materials:

Text: Class notes (Resource and Environmental Economics: A Social Welfare Approach) are available on Brightspace.

Readings will also be assigned from current literature.

Useful references (on reserve in library)

Clark, C. (1990) *Mathematical Bioeconomics: The Optimal Management of Renewable Resources* 2nd Ed, Wiley Interscience, Toronto

Clark, C. and J. Conrad (1987) *Natural Resource Economics: Notes and Problems*, Cambridge U Press, Cambridge

Marks:	Assignments	10%	
	Essay*	10%	
	Midterm I	20%	Jan 30
	Midterm II	20%	March 6
	Final Exam	40%	

* Essays should be approximately 10 pages in length. Essay topics and outlines must be approved by the instructor. In addition, both the final draft of the essay and revisions will contribute to the mark

Topic Submission Deadline:	February 6	
First Draft:	March 20	5%
Final Paper	April 3	5%

A+	90-100%	B+	77-79%	F	0-69%
A	85-89%	B	73-76%		
A-	80-84%	B-	70-72%		

Topics: Attitudes Towards the Environment

 Social Decision Making

 Intertemporal Decision Making
 Lagrangians Applied to Intertemporal Problems
 The Maximum Principle
 Dynamic Programming

 Intertemporal Social Decision Making

 Nonrenewable Resources/The Mine
 Gray's Model
 Hotelling's Model of the Industry
 Regulation

 Harvesting the Stock/Forestry
 Faustmann Model
 Hartman/Strang
 Regulation

 Harvesting the Growth/Fisheries
 Beverton Holt Model
 Schaefer Model
 Gordon Schaefer Model
 Dynamic Models
 Regulation

University Policies and Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate

Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.

Information: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

Information: https://www.dal.ca/campus_life/academic-support/accessibility.html

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

Code: https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness

Statement: <http://www.dal.ca/cultureofrespect.html>)

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit the office (Rm 3037, McCain Building), e-mail (elders@dal.ca) or leave message (902-494-6803).

Information: https://www.dal.ca/campus_life/communities/native.html

Important Dates in the Academic Year (including add/drop dates)

https://www.dal.ca/academics/important_dates.html

University Grading Practices

https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

Student Resources and Support

Advising

General Advising https://www.dal.ca/campus_life/academic-support/advising.html

Science Program Advisors: <https://www.dal.ca/faculty/science/current-students/academic-advising.html>

Aboriginal Student Centre: https://www.dal.ca/campus_life/communities/native.html

Black Advising Centre: https://www.dal.ca/campus_life/communities/black-student-advising.html

International Centre: https://www.dal.ca/campus_life/international-centre/current-students.html

Academic supports

Library: <https://libraries.dal.ca/>

Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html

Copyright Office: <https://libraries.dal.ca/services/copyright-office.html>

Fair Dealing Guidelines <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>

Other supports and services

Student Health Services: https://www.dal.ca/campus_life/health-and-wellness/health-services/services.html

Counselling: https://www.dal.ca/campus_life/health-and-wellness/counselling.html

Student Advocacy: <https://www.dsu.ca/services/community-student-services/student-advocacy-service>

Ombudsperson: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html

Safety

Research Lab Safety https://www.dal.ca/content/dam/dalhousie/pdf/dept/safety/lab_policy_manual_2007.pdf

Biosafety: <https://www.dal.ca/dept/safety/programs-services/biosafety.html>

Chemical Safety: <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

Radiation Safety: <https://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

Scent-Free Program: <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>