**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)**  


**Marks:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>10%</td>
</tr>
<tr>
<td>Essay*</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm I</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm II</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
</tbody>
</table>

* 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%

**Grading Scale:**

- 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.


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

Safety
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