



**ECO313 - Environmental Economics**  
**Fall 2010 Schedule**  
**Professor Matthew Turner**  
**Department of Economics**  
**UNIVERSITY OF TORONTO**

- [Office hours](#)
- [How we marked your HW](#)
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**Objectives and Requirements:**

This course extends conventional methodologies of microeconomics to the study of environmental problems. The object of the course is to point out the sorts of environmental problems to which microeconomic analysis may be usefully applied, and to see what insights economics has to offer. Since there are a large number of environmental problems and a smaller number of insights, the course will be both abstract and analytically rigorous in order that these insights may be developed in a generality that will allow them to be broadly applied. Examples to be covered include fisheries and renewable resource management, biodiversity and global warming.

The course will consist of two lecture hours per week, a midterm and a final. Note that the midterm is NOT held during the regular class period. The course will also involve approximately weekly problem sets. The best way to learn the material covered in the course is to DO THE PROBLEM SETS. I try to write exam questions so that anyone who really understands the homework problems will do well.

To further encourage you to work the homework problems, I will collect three problems sets in class. Shortly after problem sets are due, I will post solutions on this page. This means that late problem sets are not accepted. I will not announce in advance which problem sets will be collected, so if you anticipate missing a class you will want to hand your problem sets in BEFORE class to the economics department receptionist at 150 St. George Street.

**Required Texts:** All readings will be distributed through the course website.

**Grading:** The grading scheme is: three problem sets: = 15%, Midterm: 35%, Final: 50%.

The following is a tentative schedule for the material to be covered during the term. You should check this schedule at least weekly for updates and changes.

**Announcements:** There is a student in this class who requires a volunteer notetaker as an accommodation for a disability. By signing up and posting your notes, you can make a significant difference for this individual's capacity to fully participate in this course. Go to: <http://www.studentlife.utoronto.ca/accessibility/pcourselist.aspx> or come in person to Accessibility Services 215 Huron St. Suite 939. .

Date	Reading	Problems	Solutions
Sept. 13	<ul style="list-style-type: none"> <li>• <a href="#">Dorfman and Dorfman, 1993</a> Chapters 5 and 18.</li> <li>• <a href="#">Game Theory and Political Theory, Ch. 2</a>. Peter Ordeshook, Cambridge University Press 1989. I will only cover the material up to page 71.</li> <li>• <a href="#">Lecture notes</a>.</li> </ul>	● due Sept. 27	
Sept. 20	<ul style="list-style-type: none"> <li>• <a href="#">Dorfman and Dorfman, 1993</a> Chapters 11 and 19.</li> <li>• <a href="#">An almost practical step toward sustainability</a>. Robert Solow, An address to RFF (1993).</li> <li>• <a href="#">Population, sustainability, and Earth's carrying capacity</a>. Daily, G.C., &amp; Ehrlich, P.R. (1992). BioScience 42:761-771.</li> <li>• <a href="#">Lecture notes</a>.</li> </ul>		
Sept. 27	<ul style="list-style-type: none"> <li>• <a href="#">Environmental Preservation: Uncertainty and Irreversibility</a>. K. Arrow and A. Fisher, Quarterly Journal of Economics, 1974.</li> <li>• <a href="#">Harold Hotelling. The Journal of Political Economy, Vol. 39, No. 2. (Apr., 1931), pp. 137-175.</a></li> <li>• <a href="#">Lecture notes</a>.</li> </ul>	● due Oct. 4	
Oct. 4	<ul style="list-style-type: none"> <li>• <a href="#">Biodiversity, prosperity, and value</a>. Wilson, E. O., in Ecology, Economics, Ethics: The Broken Circle. Bormann, F. H. and Kellert, S. R. (eds) New Haven and London: Yale University Press; 1991; pp. 3-10.</li> <li>• <a href="#">Valuing Biodiversity for Use in Pharmaceutical Research</a>. Simpson, R David; Sedjo, Roger A; Reid, John W. Journal of Political Economy, vol. 104, no. 1, February 1996, pp. 163-85</li> <li>• <a href="#">Lecture notes</a>.</li> </ul>	● due Oct. 18	
Oct. 11	<b>Thanksgiving.</b>		
Oct. 18	<ul style="list-style-type: none"> <li>• <a href="#">On the Measurement of Biological Diversity</a>. Andrew Solow, Stephen Polasky, James Broadus. JEEM 1993, pp. 60-68.</li> <li>• <a href="#">What to Preserve? An Application of Diversity Theory to Crane Conservation</a>. Martin L. Weitzman, Quarterly Journal of Economics, Vol. 108, No. 1. (Feb., 1993), pp. 157-183.</li> <li>• <a href="#">Patterns of Behavior in endangered species conservation</a>. Metrick, Andrew;</li> </ul>	● due Oct. 25	

	Weitzman, Martin L; Land Economics, Madison; Feb 1996; Vol. 72, Iss. 1; pg. 1, 16	
Oct. 25	<p><a href="#">"The Organization of Economics Activity: Issues Pertinent to the Choice of Market vs Non-Market organization"</a>. K. Arrow. Joint Economic Committee: Congress of the United States, Volume 1, US Government Printing Office, 1969.</p> <ul style="list-style-type: none"> <li>• <a href="#">The Tragedy of the Commons</a> G. Hardin. Science, New Series, Vol. 162, No. 3859. (Dec. 13, 1968), pp. 1243-1248.</li> <li>• <a href="#">The Economic Theory of a Common-Property Resource: The Fishery</a> .H. Scott Gordon, The Journal of Political Economy, Vol. 62, No. (Apr., 1954), pp. 124-142.</li> <li>• <a href="#">The Social Rate of Discount and the Optimal Rate of Investment</a> S. Marglin,, Quarterly Journal of Economics, Vol. 77, No. 1. (Feb., 1963), pp. 95-111.</li> <li>• <a href="#">Governing the commons, 1990, ch 5</a> Elinor Ostrom.</li> <li>• <a href="#">The Structure of a Contract and the Theory of a Non-Exclusive Resource</a> S. Cheung. Journal of Law and Economics, vol. 13, no. 1, April 1970, pp. 49-70.</li> </ul>	● due Nov. 1
Oct. 29, 1-2pm Examination Facility.	<p>Midterm The midterm covers ps1-5 and lectures 1-6.</p> <ul style="list-style-type: none"> <li>• <a href="#">Midterm 2009</a></li> <li>• <a href="#">Midterm 2008</a></li> <li>• <a href="#">Midterm 2007</a></li> </ul>	
Nov. 1	<ul style="list-style-type: none"> <li>• <a href="#">Dorfman and Dorfman, 1993</a> Ch 13.</li> </ul>	● due Nov. 8
Nov. 15	<ul style="list-style-type: none"> <li>• <a href="#">Correlated Uncertainty and Policy Instrument Choice</a> Robert N. Stavins , JEEM pp. 218-232 1996.</li> <li>• <a href="#">Prices vs. Quantities</a> The Review of Economic Studies, Vol. 41, No. 4. (Oct., 1974), pp. 477-491.</li> </ul>	● due Nov. 22
Nov. 22	<ul style="list-style-type: none"> <li>• <a href="#">Quota-Induced discarding in Heterogeneous Fisheries</a> M. Turner, Journal of Environmental Economics and Management, June 1997.</li> <li>• <a href="#">Problems with ITQ's in Fisheries Management with Tentative Comments on Relevance for Faroe Island Fisheries</a> P. Copes, Mimeo 1996.</li> <li>• <a href="#">Effluent Charges and Licences Under Uncertainty</a> M. Roberts and M. Spence, J. Public Economics, 1976</li> <li>• <a href="#">Environmental taxes</a> Talbot Page, Mimeo, 2004.</li> <li>• <a href="#">Environmental policy making in a second best setting</a> . Larry Goulder, in Economics of the Environment, 4th ed, Robert Stavins, Ed. Norton, 2000.</li> </ul>	
Nov. 29.	<ul style="list-style-type: none"> <li>• <a href="#">The Problem of Social Cost</a>, R. Coase, Journal of Law and Economics, 1969.</li> <li>• <a href="#">Contracting Problems and Regulation: The Case of the Fishery</a>. Ronald N. Johnson, Gary D. Libecap The American Economic Review, Vol. 72, No. 5. (Dec., 1982),pp. 1005-1022.</li> </ul>	● due Dec. 6
Dec. 6	<ul style="list-style-type: none"> <li>• <a href="#">Public Policies, pressure groups, and deadweight loss</a> Gary Becker. Journal of Public Economics 1985.</li> <li>• <a href="#">Governing the commons, 1990, ch 4</a> Elinor Ostrom.</li> <li>• Not covered: <a href="#">Protecting the environment when costs and benefits are privately known</a> ,Lewis, Tracy R.The Rand Journal of Economics, Mount Morris; Winter 1996; Vol. 27, Iss. 4; pg. 819, 29 pgs</li> </ul>	● Not collected
Dec. 7 Make-up class.	TBD	
<a href="#">Exam schedule</a>	<ul style="list-style-type: none"> <li>• <b>Final is cumulative.</b></li> <li>• <a href="#">2007 final with solutions</a></li> <li>• <a href="#">2008 final with solutions</a></li> <li>• <a href="#">2009 final with solutions</a></li> </ul>	