

Natural Resource Economics I

FARE 6950

Winter 2016

Course Meeting Times: Tuesday & Thursdays 7 p.m. – 8:20.

Room: MCLN 319 (or in alternative room if needed)

Instructor: Brady J. Deaton

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Rm. 321 J.D. MacLachlan Building

Office Hours: By appointment.

Objective:

The objective of this course is to enhance and expand your capacity to conduct high quality research. The course is designed to support your use of economic theory and applied methods to analyze natural resource issues and resource management policy. In addition, this course sets out to improve your capacity to write for publication in peer-review journals.

Format:

The course consists of lectures, discussions, class presentations, assignments, a type of literature review (I term a “gap” analysis), and a final exam. Assignments will be given throughout the semester; I expect them to be turned in on due dates in class. *Assignments other than those identified in the syllabus may also be given throughout the semester.*

Course Evaluation:

Final Class Presentation 10 %

Assignments 24%

A critical review of the *Mystery of Capital*
Anticommons Problem Set & Probit Regression
Hedonic Problem & OLS Regression
First Nations Water Regression Analysis
Climate Change: Mitigation vs. Emission Reduction
Forestry Modeling Problems

Class Participation: 6%

Final Paper: 30%

Final Exam: 30%

Final Class Presentation:

As identified above, students will make a final presentation of their final paper in class. If students are uncertain about what they should be presenting they should discuss with instructor in class or in office hours. The presentations are expected to be of high quality and I suggest students practice with each other before giving the final class presentation.

Assignments:

Applied quantitative and qualitative assignments will be given throughout the semester. The goal of the assignments is to develop skills, reinforce key concepts, and, in some cases, develop writing quality. Students should write in a clear and concise manner. Other assignments will be developed throughout the semester.

Class Participation

Your class participation grade will be based on the quality of your class participation. In addition, I will evaluate class presentations that are given throughout the class.

Final Exam:

The final exam will assess your understanding of key aspects of economic theory, applied analysis, and other issues discussed in class or in the readings. The final exam is comprehensive.

Final Paper with emphasis on “Gap Analysis”:

Students will write a research paper for this class. The reason why I emphasized the term “gap analysis” will become apparent through class discussions. The gap analysis will use *at least* three key articles (from the economics literature) to develop a ‘tension’ in the literature and raise a key economic research question.

Your final paper will, at minimum, include three key sections: (1) introduction, (2) theory and (3) proposed methods. We will discuss, depending on your project, ways you can develop results and conclusions. I am particularly interested in the quality of your gap analysis. Your paper should be written so that it clearly addresses a “gap” or “tension” in the literature. Good journal articles link these sections together in a compelling manner. We will discuss this paper in class discussions and I will provide you with additional handouts. Ideally, this paper will help you advance your research interests and give you a foundation for developing your thesis. Not including references the gap analysis should be up to ten double-spaced pages.

Key Dates for Final Paper:

- *Feb 2:* Title, list of three journal articles, be prepared to discuss in class.
- *March 24:* Write draft introduction (Should be first 1 to 3 pages). Exchange with students. Be prepared to discuss.
- *April 7:* *Final Papers are due in class. You will also give a power point presentation.*

Policies Concerning Absences, Failure to Submit Assignments

If you wish to claim illness or compassionate reasons for missing any major class responsibilities you must contact me and submit appropriate verification as indicated in the Graduate Calendar.

Failure to submit the gap analysis/final paper *on the due date* will result in a reduction in ½ the letter grade for each day the paper is late.

Readings & Schedule Subject to Change

<i>Section 1: Property Rights, Natural Resources, Capital Formation</i>		
Jan 12	Introduction to Class Contemporary Issues Introduction to Instructor Syllabus Property Rights Paradigm	<i>Alchian & Demsetz (1973)</i>
January 14	First Nations Econometric Application	<i>Anderson and Lueck (1992)</i> “First Nation Land and Economies” < http://www.uoguelph.ca/fare/FARE-talk/index.html#indian >
January 19	Mystery of Capital	<i>Mystery of Capital (Chapters 1-5)</i> Besley, T. (1995) Read to pgs. 905-908 including the “security argument”.
January 21	<i>Student Led Discussion of contemporary critique</i>	Critical Review of “Mystery of Capital” due in class and student led discussion. Your review must incorporate a contemporary (2010 or later) economic journal article empirically examining a key premise of the book. Should be 2 to 3 pages.
Section 2: Externalities; Symmetric Tragedies; Econometric Applications		
January 26	Externality/Coase Tragedy of Commons Tragedy of Anticommons	Bubb (2013) Buchanan and Yoon (2000)
Jan 28	Externality/Coase Tragedy of Commons Tragedy of Anticommons <i>Second Assignment Discussed</i>	Deaton (2007)
Feb 2	<i>Gap Analysis Discussion</i>	Students should provide title of proposed final paper and identify three <i>journal</i> articles that provide an initial basis for supporting research.
Feb 4	Discussion of Ongoing Research in this area	Bubb, Ryan (2013 vol 56): Journal of Law and Economics: “The Evolution of Property Rights”

<i>Hedonic Property Model</i>		
Feb 9	Hedonic Property Model <i>Third Assignment Discussed</i>	<i>Freeman chapter 11</i> 367-379 read closely; skim rest <u><i>Kohlhase (1991)</i></u>
Feb 11	Wind Turbines <i>Assignment 2 Discussed (Includes Reading)</i>	Vyn (2014): Wind Turbines *Comment and Reply < http://www.uoguelph.ca/fare/FARE-talk/Faretalk-Richard-Vyn-HQ.mp3 >
Feb 16- 18 Winter Break Holiday!		
Feb 23	Hedonic Presentation To be discussed	Students identify an article that applies the hedonic method to an area of their interest. (Doesn't have to be associated with your gap.) Prepare 1-4 slides that helps you present the (1) Issue being examined, (2) Key variables, and (3) Key findings. * Presentation is limited to 10 minutes.
Feb 25 *May have to move Class to 24 th ; Will discuss.**	<i>DID</i> <i>Endogeneity</i> <i>Hedonic Model Discussed</i>	No Readings Assigned
<i>Section 4: Climate Change, Basic Dynamic Model, Water, Forestry</i>		
March 1	Basic Dynamic Model	Conrad Chapter 1 & 2
March 3	American Bison <i>Final Paper Discussed</i>	Demsetz (1967) <u>Lueck</u> (2002)

March 5	Discount Rate Hotellings Rule Global Warming	Livernois (read pp: 22-30) Page (Chpt. 7) Mendelsohn (Read for general insight)
March 8	<i>Mitigation Emissions Abatement Fourth Assignment Discussed.</i>	Conrad 223-229 <i>Review Conference of Parties Twenty-First Session Paris, Nov. 30-December 11</i>
March 10	Forestry	Conrad 4 Haley and Nelson Students Explore a forestry issue
March 15	Water & MTA Fifth Assignment	Woods & Deaton Reference reading: Monfardini and Radice (2006)
March 17	Class To Be Announced	
March 22	<i>Forestry II in Ontario</i>	Conrad Chapter 4 (read thoroughly)
March 24	Forestry Assignment <i>Sixth Assignment</i>	Students identify a recent article on forestry issues. Prepare 1-4 slides that help you present the (1) Issue being examined, (2) Key variables, and (3) Key findings. * Presentation is limited to 10 minutes.
March 29	Discussion & Dinner	Potential Video
March 31	Farmland Mkts; Rental Mkts; Land Issues	Kirwan (2009) reading. Also, listen to two podcasts: 1. First portion of Kirwan < http://www.uoguelph.ca/fare/FARE-talk/index.html#policy > And: Barry Goodwin << http://www.uoguelph.ca/fare/FARE-talk/index.html#landlords >>
April 5	Class To Be Reviewed	

Texts and Readings

Most of the readings will be made available on course-link. The following supplemental texts have been put on reserve in the library:

Conrad, J. M. and C. Clark. 1987. *Natural Resource Economics: Notes and Problems*. Cambridge University Press, New York: 1987.

Conrad, J. M. 1999. *Resource Economics*, Cambridge University Press, Cambridge.

Clark, C. W. 1990. *Mathematical Bioeconomics: The Optimal Management of Renewable Resources 2nd edition*. John Wiley & Sons, Inc. New York.

Weitzman, Martin L. 2003. *Income, Wealth, and the Maximum Principle*. Harvard University Press: Cambridge, Massachusetts.

Readings

Alchian, A. and H. Demsetz. 1973. "The Property Right Paradigm." *The Journal of Economic History*: 16-27.

Anderson, T.L. and Dean Lueck. 1992. "Land Tenure and Agricultural Productivity on Indian Reservatins." *Journal of Law and Economics* 35(2): 427-454.

Buchanan, J.M. and Y.J. Yoon. 2000. "Symmetric Tragedies: *Commons and Anticommons*." *Journal of Law and Economics* (VIII): 1-13.

Bubb, R. 2013. "The Evolution of Property Rights: State Laws or Informal Norms." *Journal of Law and Economics* 56(3): 555 -594.

Brunnschweiler, Christa N. and Erwin H. Bulte. 2008. "The resource curse revisited and revised: A tale of paradox and red herrings." *Journal of Env. Economics and Management* 55: 248-264.

Clark, C. W. and Munro, G.R. 1975, "The Economics of Fishing and Modern Capital Theory: A Simplified Approach." *Journal of Environmental Economics and Management*, 2 :92- 106.

Cutler, D.M., E.L. Glaeser, and J.L.Vigdor, 1999. "The Rise and Decline of the American Ghetto." *Journal of Political Economy* 107 (3): 455-506.

Coase, Ronald H. 1960. "The Problem of Social Cost". *Journal of Law and Economics* 3 (1): 1–44.

- Costello, C., S.D. Gaines, John Lynham. 2008. "Can Catch Shares Prevent Fisheries Collapse?" *Science* 321: 1678-1681.
- Besley, T. 1995. "Property Rights and Investment Incentives: Theory and Evidence from Ghana." *Journal of Political Economy* 103(5), 903-937.
- Bertachini, E., J. De Mot, and B. Depoorter. 2009. *Review of Law and Economics* 5 (1): 163-176.
- De Soto, H. 2000. The Mystery of Capital. Basic Books: New York.
- Deaton, B.J. 2007. "Intestate Succession and Heir Property: Implications for Future Research on the Persistence of Poverty in Central Appalachia" *Journal of Economic Issues* 41: 927-942.
- Demsetz, H. 1967. "Toward a Theory of Property Rights." *The American Economic Review*, 57 (2): 347-359.
- Dietz, S. and N. Stern. 2008. "Why Economic Analysis Supports Strong Action on Climate Change." *Review of Environmental Economics and Policy* 2 (1): 94-113.
- Dorfman, R. 1969. "An Economic Interpretation of Optimal Control Theory." *The American Economic Review* 59: 817- 831.
- Freeman III, A. M. 1993. *The Measurement of Environmental and Resource Values: Theory and Methods*. Washington D.C.: Resources for the Future.
- Gordon, H. S. 1954. "The Economic Theory of a Common-Property Resource: The Fishery." *Journal of Political Economy*, 62: 124-42.
- Hardin, G. 1968. "The Tragedy of the Commons." *Science* 162: 1243-1248.
- Hartman, R.1976. "The Harvesting Decision When a Standing Forest Has Value." *Economic Inquiry* 14: 52-57.
- Hilborn, R. 2007. "Managing fisheries is managing people: what has been learned?" *Fish and Fisheries* 8: 285-296.
- Kohlhase, J. 1991 "The impact of toxic waste sites on housing values." *Journal of Urban Economics* 30 (1): 1-26.
- Lueck, D. 2002. "The Extermination and Conservation of the American Bison." *Journal of Legal Studies* 31: S609-S650.
- Luckert, Martin K., David Haley, and George Hoberg. 2011. *Policy for Sustainably Managing Canada's Forests: Tenure, Stumpage Fees, and Forest Practices*. UBC Press: Toronto.

Libecap, G.D. and D. Lueck. 2011 “The Demarcation of Land and the Role of Coordinating Property Institutions.” *Journal of Political Economy* 119(3): 426-467.

Mendelsohn, R. 2008. “Is the Stern Review an Economic Analysis?” *Review of Environmental Economics and Policy* 2 (1): 45-59.

Netusil, N. 2005. “The Effect of Environmental Zoning and Amenities on Property Values.” *Land Economics*, 81: 227- 246.

Ostrom, E. 1990. *Governing the Commons: the Evolution of Institutions for Collective Action*. Cambridge University Press

Page, T. 1977. *Conservation and Economic Efficiency: An Approach to Materials Policy*. Washington, D.C.: Johns Hopkins University Press.

Repetto, R. 2001. “A Natural Experiment in Fisheries Management.” *Marine Policy*, 25: 251-264.

Schlager, Edella and Elinor Ostrom. “Property-Rights Regimes and Natural Resources: A Conceptual Analysis.” *Land Economics* 68 (1992): 249-62.

Schaefer, M. B. 1957. “Some Considerations of Population Dynamics and Economics in Relation to the Management of Commercial Fisheries.” *J. Fish. Res. BD. Canada* 14: 669-681.

Schmitz, Andrew and Charles B. Moss, Troy G. Schmitz, Hartley W. Furtan, and H. Carole Schmitz. 2010. *Agricultural Policy and Agribusiness, and Rent-Seeking Behaviour*. University of Toronto Press: Toronto

Schmitz, A. and R. E. Just. 2003. “The Economics and Politics of Farmland Values.” In C. B. Moss and A. Schmitz, ed. *Government Policy and Farmland Markets: The Maintenance of Farmer Wealth*. Iowa State Press: 53-79.

Stavins, Robert N. 2011. “The Problem of the Commons: Still Unsettled after 100 years.” *The American Review* 101 (1): 141-188.

Torrell, A. J. Libbin, and M. Miller. 1990. “The Market Value of Water in the Ogallala Aquifer.” *Land Economics* 66 (2): 1