

Development, Environment, and Sustainability

Syllabus
Economics 294
Fall 2017
Neill Hall 110

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Class Time: Tuesday and Thursday 9:40-11:10

Office Hours: Mondays 3-4pm and Thursdays 3-4pm. Please feel free to email me anytime. I will also be available to Skype or Facetime by appointment.

Course Description

In many developing countries we observe dramatic improvements in welfare measures such as increased life expectancies, increased school enrollments, and improved water and sanitation conditions. Yet at the same time we face increasingly binding natural resource constraints and deterioration of environmental resources. This course approaches the processes of economic, social, and technological change in developing countries in light of these constraints. The challenges of poverty reduction and redistributive economic growth are deeply intertwined with the way in which we manage and allocate natural resources. Without careful attention to sustainability principles we could easily see welfare gains erased in the medium-term. This course takes a systems approach to thinking about processes of international sustainable development and questions how these transformation processes are or are not economically, socially, and environmentally sustainable.

The curricular objective of this course is to have students apply an economics framework to sustainable development problems. We will consider how different forms of capital (human, natural, social, natural, and financial capital) interact to provide desirable development outcomes in both the short and long-term. At the end of this course, students will be able to critically analyze international development projects using a sustainability lens. Students will further be able to implement a cost-benefit analysis of development interventions and be able to discuss how long-term social, economic, and environmental sustainability considerations affect the cost-benefit framework. By encouraging students to engage with concepts of sustainability in an international development framework, this course will help students be thought leaders in the field by enabling them to speak the language of economic development with careful attention paid to sustainability principles. This course will fill a gap in the available courses at Macalester by offering students a lower level economics course that examines international development and natural resource issues. We currently only offer a senior level economics course on international development, excluding many students because of prerequisites, and we do not offer a course in the economics department that examines international development with a strong sustainability focus.

Student Learning Objectives

1. Students will be able to apply basic economic analysis to problems of sustainable development.

2. Students will understand different measurement tools and policy responses to sustainable development problems.
3. Students will employ rigorous economic analysis, incorporating social, economic, and environmental costs and benefits, to analyze development interventions.

Prerequisites: All students must have taken and received a grade of C or better in Principles of Economics (ECON 119).

All readings are available on Moodle

Class Requirements and Grading: Grades will be based on the following assignments and activities:

1. **Homework and Response Papers (15%):** These problem sets and writing assignments will typically be extensions of the reading assignments for a given unit. They will require you to write short essay responses to analytical questions and solve problems. Additionally, there are several assignments related to your term project that will count toward your homework grade. Late assignments will be penalized with a 10% grade reduction for each day late. After 3 days a late assignment will not be accepted.
2. **Two Exams (30%: 15% each):** Two exams will be given in order to assess your understanding of the material.
3. **Term Project (25%):** This is a semester long effort to apply the concepts you learn in class to a particular sustainability issue. You will develop and choose your topic. You will be required to turn in portions of this paper throughout the semester. See the assignment description for more details.
4. **Student Led Class (20%):** There will be themes that individuals will work on for their papers throughout the semester. You will be teamed with 1-2 other students within your theme. You and the other student are expected to become experts on that topic. In turn you will be given one half of a class session to communicate your expertise to the class. You may have to do some additional work to bridge your two subtopics into a larger topic. This means a bit extra reading and doing some more “general” work on the topic rather than just your specific focus. You are required to meet with me or the preceptor **1 week prior** to discuss your strategy for your student led class.
5. **Class Participation (10%):** Success in this class is dependent on class participation and interaction with your peers. It is therefore necessary that you attend class on a regular basis. You are expected to come to class prepared, having done the readings. Engaged, active, and respectful participation is expected from all class participants.

Attendance Policy: You are allowed ONE unexcused absence. Each additional unexcused absence will result in a decrease in your final letter grade by one step (ie. B to B-). You are also considered absent if you arrive more than 15 minutes after class has begun. If you know you need to miss class, please let me know in advance. There will be no make-up exams.

Academic Honesty: Students are expected not to cheat. Cheating includes copying another student’s homework, looking at another student’s paper during a test, copying another author’s work without proper citation. Please do not do any of these. Doing so will result in an F in the course and more problems than the cheating is worth. Please talk to me if you have any questions about this, or if you feel so swamped that cheating looks appealing.

Note: I am committed to ensuring access to course content for students. Reasonable accommodations are available for students with documented disabilities. Contact the Office of Student Affairs, 651-696-6220 to schedule an appointment and discuss your individual circumstances. It is important to meet early in the semester; this will ensure that your accommodations can be implemented early on.

Preliminary Schedule

Day	Date	Topic	Due	Readings
Tuesday	5-Sep	Course Introduction		
Thursday	7-Sep	Sustainability Intro		Pezzey, J., “Sustainability Constraints”. <i>Land Economics</i> v.73 n.4, pp.448-466, 1997.
Tuesday	12-Sep	Sustainability and Development		Greenstone, M. and Jack, B.K. "Envirodevonomics: A Research Agenda for an Emerging Field." <i>Journal of Economic Literature</i> , 2015, 53(1): 5-42
Thursday	14-Sep	Poverty and sustainability	Response Paper	Alix-Garcia, Jennifer, Craig McIntosh, Katharine R. E. Sims, and Jarrod R. Welch. 2013. “ The Ecological Footprint of Poverty Alleviation: Evidence from Mexico’s Oportunidades Program. ” <i>Review of Economics and Statistics</i> 95 (2): 417–35.
Tuesday	19-Sep	Nature vs. Development?		Dasgupta, Partha. 2010. “The Place of Nature in Economic Development.” In <i>Handbook of Development Economics</i> , Volume 5, edited by Dani Rodrik and Mark Rosenzweig, 4977–5046. Amsterdam and San Diego: Elsevier, North-Holland
Thursday	21-Sep	Welfare Theory - Intro	Term Project proposal	Dorfman, Robert, "Some Concepts from Welfare Economics"
Tuesday	26-Sep	Review of Externalities Theory		TBD
Thursday	28-Sep	Correlation vs. Causation (RCTs and reading regression output)		http://dss.princeton.edu/online_help/analysis/interpreting_regression.htm Poor Economics Chapter 1
Land				
Tuesday	3-Oct	Land Reform	Problem Set	Deininger, Klaus; Feder, Gershon. 2009. "Land registration, governance, and development : evidence and implications for policy". <i>The World Bank research observer</i> . -- Vol. 24, no. 2 (August 2009), pp. 233-266. Klaus Deininger, Making Negotiated Land Reform Work: Initial Experience from Colombia, Brazil and South Africa, <i>World Development</i> , Volume 27, Issue 4, April 1999, Pages 651-672
Thursday	5-Oct	Land Reform	Response Paper	Zimmerman, F. "Barriers to Participation of the Poor in South Africa’s Land Redistribution" <i>World Development</i> Volume 28, Issue 8, August 2000, Pages 1439–1460; Christine Valente, The Food (In)Security Impact of Land Redistribution in

				South Africa: Microeconomic Evidence from National Data, World Development, Volume 37, Issue 9, September 2009, Pages 1540-1553, ISSN 0305-750X,
Tuesday	10-Oct	Student Presentation of Land Project	Term paper proposal revision	2 teams 45 minutes each (gender and land reform/ environmental stewardship and land reform)
Climate Shocks				
Thursday	12-Oct	Implications of Climate Change in Developing Countries.		Burke, M., S.M. Hsiang, E. Miguel. (2015). "Climate and Conflict", <i>Annual Review of Economics</i> . DOI: 10.1146/annurev-economics-080614-115430. Edward Miguel Ted Talk (link on Moodle)
Tuesday	17-Oct	Implications of Climate Change in Developing Countries.	Response Paper	Wheeler, T. and von Braun, J. "Climate Change Impacts on Global Food Security" <i>Science</i> 02 Aug 2013: Vol. 341, Issue 6145, pp. 508-513
Thursday	19-Oct	Guest Speaker: Bernard Amadei	2 questions based on website overview	https://www.wbez.org/shows/worldview/how-engineers-without-borders-is-helping-the-developing-world/c6556ac8-f19e-4a55-8435-01af15f27cf7
Water				
Tuesday	24-Oct	Sustainable Water Practices	First midterm exam due	Discussion: Blue Gold: World Water Wars (Documentary)
Thursday	26-Oct	Fall Break		
Tuesday	31-Oct	Water Privatization	Term Project Part 1	Galiani, Sebastian, Paul Gertler, and Ernesto Schargrotsky. 2005. "Water for Life: The Impact of the Privatization of Water Services on Child Mortality." <i>Journal of Political Economy</i> 113 (1): 83–120 Kremer, Michael, Jessico Leino, Edward Miguel and Alix Peterson Zwane. 2011. "Spring Cleaning: Rural Water Impacts Valuation, and Property Rights Institutions." <i>The Quarterly Journal of Economics</i> 126: 145-205.
Thursday	2-Nov	Student Presentation of Water Project	6 students	Water Privatization Debate – Each side assigns a reading – three class groups: one supports pro, one supports con, one is a moderator and evaluator.
Conservation and Development				
Tuesday	7-Nov	Conservation vs. Human needs	Response Paper	Barrett, C. B. and P. Arcese. 1998a. "Wildlife harvest in integrated conservation and development projects: Linking harvest to household demand, agricultural production, and environmental shocks in the Serengeti." <i>Land Economics</i> 74(4):449-465.
Thursday	9-Nov	Conservation strategies		Ferraro, P. J., Simpson, D. 2002. "The Cost-Effectiveness of Conservation Payments" <i>Land Economics</i> . 78 (3): 339–353 Comparison of direct transfers for human capital development and environmental conservation_Ma et al. 2017
Tuesday	14-Nov	Conservation as a means of ecotourism	Term Project Part 2 due	Serengeti Case Study
Thursday	16-Nov	Student Project on Conservation	4 students	2 teams 45 minutes each
Population pressures and natural resource consumption				
Tuesday	21-Nov	Population and		Cropper, M., & Griffiths, C. (1994). The Interaction of Population Growth

		Environmental Quality		and Environmental Quality. <i>American Economic Review</i> , 84(2), 250–254.
Thursday	23-Nov	Thanksgiving		
Tuesday	28-Nov	Population and natural resource use	Draft for Peer Review	Godoy, R. (1997). Household Determinants of Deforestation by Amerindians in Honduras. <i>World Development</i> , 25(6), 977–987. Deaton, A., & Paxson, C. (1998). Economies of Scale, Household Size, and the Demand for Food. <i>Journal of Political Economy</i> , 106(5), 897–930. http://doi.org/10.1086/250035
Thursday	30-Nov	Student Presentation of Population project		2 teams 45 minutes each (4 students)
Innovative Solutions to Environmental Problems in Developing Countries				
Tuesday	5-Dec	Payment for Environmental Services?	Response Paper	Cash for carbon: A randomized trial of payments for ecosystem services to reduce deforestation. <i>Science</i> 21 Jul 2017: Vol. 357, Issue 6348, pp. 267-273
Thursday	7-Dec	Infrastructure		Lee, Kenneth, Edward Miguel, and Catherine Wolfram. "Experimental Evidence on the Demand for and Costs of Rural Electrification." NBER New Working Paper #22292. May 2016
Tuesday	12-Dec	Improved Cook Stoves	Final Term Paper due	Hanna, Rema, Esther Duflo, and Michael Greenstone. 2016. "Up in Smoke: The Influence of Household Behavior on the Long-Run Impact of Improved Cooking Stoves." <i>AER: Economic Policy</i> 8(1):80-114.