2017

ECON 421-01 Environmental, Economics and Policy

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CATALOG DESCRIPTION: Analysis of concepts and models concerning economics and the environment, with applications to policy questions. Project work will focus on natural resources or ecosystem services.

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PREREQUISITES: ECON 305, ECON 320 (or instructor permission); Note that calculus is a prerequisite for ECON 305 and this course uses calculus.
Notes: this course
1) Is a 400-level elective for an Economics major (ECON BA or BSBA) or Economics minor
2) Is a required course for:
   o a BA in Economics, Sustainability & Society (ECOS)
   o a BSBA in Sustainability: Economics and Management (SUST)
   o a BA in Land, Farming & Community (LAND)
3) Is an elective for:
   o a BS in Environmental Science (ENSC)
   o an Environmental Studies minor
   o PPP major

COURSE DESCRIPTION:
This course addresses formulation and evaluation of policies that address the connections between the environment and economy, utilizing concepts and models (including calculus-based optimization models) from natural resource, environmental and ecological economics. These policies may be considered at a variety of levels (e.g., individual; corporate/organizational/government, at local, regional, national, global levels). Students will analyze and extend the basic natural resource, environmental and ecological economic concepts and models, and apply these to policy questions concerning economics and the environment. Applications will involve applied work, with reference to natural resources and/or ecosystem services. Students will read, discuss, work on projects, write papers, make presentations, and complete related assignments. Topics for papers and projects will come from local issues and problems whenever possible. The class will utilize experiential, project-based learning and writing assignments. To enhance the course’s focus on real world environmental problems, there may be guest speakers and field trips, which students are encouraged to attend.

READINGS FROM:
3. Other readings as assigned. These will often be found on my website (under ECON 421/Readings & Links), http://bertaux.wordpress.com/

CANVAS:
This course requires access to Canvas. Please address all Canvas access questions to the help desk: 745-HELP.
STUDENT LEARNING OBJECTIVES:
-- students will do several of the following:
  - relate our decisions and actions as economic actors at a variety of levels (individual, community, national, global) to environmental quality
  - apply some of the following basic concepts to current environmental issues: marginal extraction, external and user costs, excludability, rivalry, public vs. private goods, open access regimes
  - analyze real world examples of market failure (eg, externalities such as climate change, water and air pollution, and solid waste; non-excludable/non-rival goods; distribution issues)
  - utilize one or more of the following to analyze environmental issues and policies: benefit-cost analysis, cost effectiveness analysis, economic and/or environmental impact analysis
  - consider real world environmental policies' impacts on welfare of future generations (eg, substitutability of natural and human-made capital, morality of discounting the future)
  - improve collaborative and writing skills through project work and paper-writing

DISTRACTING ACTIVITIES/DEVICES:
Please note that the following activities during class are distracting and disrespectful to the professor and to fellow students, and will negatively impact your grade:
- receiving or making phone calls or texts
- non-class computer or smartphone activity
- side conversations, etc.
Phone should be off during class, and, unless requested by the professor, use of a laptop, ipad, etc. during class is restricted to students for whom this is recommended in writing by the Learning Assistance Center.

GRADING:
Final grades will be assigned as follows:
1. Midterm Exams: 30%
2. Problem sets, and class participation / attendance: 25%
3. Posters, including intermediate steps and presentations: 15%
4. Papers: research/project paper / section, including intermediate steps: 20%
5. Final Exam / Oral presentation of papers: 10%

Grading Scale:
A   (94+ %)
A-  (90-94%)
B+  (87-90%)
B   (84-87%)
B-  (80-84%)
C+  (77-80%)
C   (74-77%)
C-  (70-74%)
D+  (67-70%)
D   (64-67%)
D-  (60-64%)
F   (below 60%)

Extra credit: attendance at and subsequent reaction papers on extra credit events, each to be worth 0.5% (maximum of 2)

Notes:
1. Academic dishonesty will not be tolerated; any work not your own should be properly cited (see University catalog, may result in failure for course and/or expulsion from University).
2. Failure to take an exam will result in a “0” grade. Prior permission must be obtained from the instructor for missing exams. Makeup exams are not generally given; in the event of an excused absence from an exam, the cumulative final exam may be given double weight in the student’s final grade.
3. Late assignments that are not pre-approved will be marked down significantly and will not be accepted after one week without a doctor’s note indicating a significant medical issue.

FINAL PAPERS, POSTERS & GROUP PROJECTS (detailed guidelines and rubrics to be posted on website):
Papers and group projects will involve collaborative research, and significant (30 minute) final oral presentations to the class and possibly community partner(s) and/or a professional conference. Project assignments will include poster presentations on related economic policy topics. Guidelines for papers and posters to be provided separately. Final papers may be research papers or project reports, and should support your group’s project and poster presentation. The paper will involve research on one or more
policies related to one or more natural resources and/or ecosystem services, will utilize data relevant to the topic; writing will include a final paper section (total paper will be approximately 15 pp. text plus figures/charts/tables). Projects, papers and posters will require pre- and intermediate writing assignments (e.g., paper proposal, annotated outline, bibliography, poster powerpoint file). You must correctly and consistently use one of the standard citation methods (MLS, Chicago, APA).

COURSE SCHEDULE (tentative, subject to change as announced in class):

Important note: If necessary, you must review concepts and Models from ECON 320, up to and including DF Ch 10 and TL Ch 4. See my Wordpress website/ECON 320/Assignments for review of Problem Sets/Answers for this material. I will be building from this material.

Week 1: Climate Change as a Framework for Considering Environment, Economics & Policy
Jan. 11
DF Ch 3 Ends, Means, Policy, pp. 37-43, 48-56
Naomi Klein, Introduction, This Changes Everything

Week 2-3 Jan. 18, 25
DF Ch 14, 15 Macroeconomics and Sustainability: Wellbeing, Money

Midterm 1 (In-class, Essay): Jan. 25

Week 4-5 Feb. 1, 8
DF Ch 11 Market Failures and Abiotic Resources
Problem Set 1 -- Marginal User Cost, Marginal External Cost, Marginal Extraction Cost, due Feb. 8

Week 6-7 Feb. 15, 22
TL Ch 5 Sustainable Development and Dynamic Efficiency
Project Update #1 and Paper topic paragraph due on Canvas, Feb. 6
Problem Set 2 -- Two Period Model, due Feb. 22

Week 8 Mar. 1
DF Ch 12 Market Failures and Biotic Resources

SPRING BREAK Mar 7 – 11

Week 9 Mar. 15
TL Ch 14 Environmental Economics and Economics of Pollution Control
Project Update #2 and Draft Bibliography, Data Source(s), Outline (with page budget for each section) due on Canvas, Feb. 27

Week 10 Mar. 22
TL Ch 14 Environmental Economics and Economics of Pollution Control (continued)
Problem Set 3 -- Cost-Effective Pollution Control, due Mar. 22

Week 11 Mar. 29
Midterm Exam 2: March 29 (tentatively on DF Ch. 11,12; TL Ch. 5,14 plus other material assigned to date)
DF Ch 21 General Policy Design Principles

Week 12 Apr. 5
Project Update #3 and Final Bibliography, Data Source(s), Outline due on Canvas, Mar. 27
DF Ch 22 Policy and Sustainable Scale
(optional: TL Ch 20 The Quest for Sustainable Development and Environmental Justice)

REQUIRED Climate Change Events:
Naomi Oreskes Public Lecture, Thurs., April 6, 7-8:30 PM, Cintas Banquet Center
Lunch with Naomi Oreskes, Fri., April 7, 12-1 PM

Week Apr. 12
Group Presentations Practice
EASTER BREAK  April 13-17

Week 13  Apr. 19
DF Ch 23 Policy and Just Distribution
DF Ch 24, Efficient Allocation (if time allows)

Week 14 Apr. 26
Group Presentations

Week 15  May 1-5  FINAL EXAMS
Wed. May 3, 3-5:30: Final Exam

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