Syllabus and Readings for Environment and the Global Economy AAE/IES 344

Spring 2012

1 Administrative details

Course meets:	TTH
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2 Purpose of course

In this course we will explore the causes and nature of global environmental problems. We will cover air and water pollution, including transboundary issues, forests, energy, global climate change, economic growth and the environment, and sustainbility, among other issues. Our understanding of these topics will be rooted in an economic approach, with the intent of convincing you that economics can provide important insights into the global environment. Perhaps belying the title of the course, our method of analysis will be built up from the individual decision-making level.

3 Prerequisites

There are no prerequisites for this course.

4 Course requirements

Your grade will be based upon problem sets, exams, and in-class quizzes. Although I do not take attendance, you will be held responsible for any information transmitted during lecture, including comments made by your peers. Anything that you write down on paper and hand in to me should contain gramatically correct, complete sentences. There will be 4 take-home assignments. There will also be *at least* 5 in-class quizzes. Your lowest problem set grade and your lowest quiz grade will be dropped. Therefore, your grade will be based on *at least* 4 quizzes, 2 exams, and 4 problem sets. Exams are NOT cumulative. The information on exam II will cover only materially presented after exam I. The distribution of points for the semester will be as follows:

Quizzes	25%
Exam I	20%
Assignments	35%
Exam II	20%

Final grades are assigned in the following manner: the top five scores from the class are averaged. This average is subtracted from 100, and the remainder added to everyone's score (naturally, this means that 2 or 3 people receive "more than" 100%). Final grades are then assigned using the following scale:

>= 93%	: A
< 93 & >=88 %	: AB
<88 & >=83 %	: B
<83 & >=78%	: BC
< 78 & >= 68	: C
< 68 & >= 55	: D
< 55	: F

Assignment due dates are: February 14, March 8, April 17, and May 3.
The date of the exam I is March 15. Exam II will take place in class on May 10.

4.1 Materials

All reading materials will be posted on Learn@UW.

4.2 Homework assignments

Homework assignments will include a variety of written and numerical exercises. Three out of the four assignments will count towards your grade. This means that you can either drop your lowest score, or simply skip one assignment. Due dates for assignments will be announced in class. Assignments will be posted

one week before they are due. If you choose not to turn in an assignment on time, you will lose 20% of the total points that you earn on the assignment for each day that it is late.

4.3 Quizzes

In-class quizzes will be given frequently. They will take no more than 15 minutes each time. Some of these quizzes will simply test whether you have read the material for the day, while others will be more thought-provoking. Some of them will even be done in groups! I reserve the right to give quizzes on material which has been assigned to read for a given class, even before I have presented the lecture on the material. I also reserve the right to give quizzes on material covered in any class previous to the quiz day. Note that your lowest quiz grade will be dropped. This allows for the possibility that you might be absent on the day that a quiz is given.

5 Important things to note

- THERE IS NO EXTRA CREDIT IN THIS CLASS.
- No laptops or texting during class. If you really need a justification for this policy, see this intriguing story on multitasking on NPR:

  http://www.npr.org/templates/story/story.php?storyId=95256794
- The ringing of a cell phone in class will result in an immediate quiz.
- Cheating will not be tolerated. If you are caught cheating, you will fail the course and appropriate University Conduct Code sanctions will be taken against you.

6 Course outline and readings

THESE READINGS MAY CHANGE SOMEWHAT AS THE SEMESTER PROGRESSES. I WILL ADVISE YOU OF MODIFICATIONS ON LEARN@UW.

1. Course overview
   (a) **[Jan 24]** Fullerton and Stavins (1998) "How Economists See the Environment" *Science*
2. Key concepts: production and consumption (local)
   (a) **[Jan 26-31]** Mankiw, ch. 4
3. Property rights and pollution
   (a) **[Feb 2]** Demsetz (1967) "Towards a Theory of Property Rights" *American Economic Review*
   (b) **[Feb 2]** Stiglitz and Walsh, Ch. 18 (optional)
   (c) **[Feb 7]**"Economic Instruments for Environmental Regulation" Tietenberg in Stavins
   (d) **[Feb 9]** Movie (in class): *Maquilapolis*

   HOMEWORK 1 DUE, FEB 14
4. Population: trends and policies
   (a) **[Feb 14]** Ray, ch 9
   (b) **[Feb 16]** Easterly "Cash for Condoms"
5. Income and growth: trends and definitions
   (a) **[Feb 21]** video (in-class): Hans Rosling shows the best stats you've ever seen (www.ted.com)
   (b) **[Feb 21]** Barro: pages 16-28, 36-46
   (c) **[Feb 23]** Weil, ch. 3
6. Economic growth and the environment
   (a) **[Feb 28 - Mar 1]** Tietenberg (2006) ch 22
   (b) **[Feb 28- Mar 1, OPTIONAL]** Brock and Taylor (2004) "Economic Growth and the Environment: A Review of Theory and Empirics" *NBER Working Paper 10854*
7. The environment and economic growth (the resource curse)
   (a) **[Mar 6-8]** Frankel (2010) "The Natural Resource Curse: A Survey" *NBER Working Paper No. 15836*

HOMEWORK 2 DUE, MARCH 8

8. **[Mar 13] EXAM I REVIEW**
9. **[Mar 15] EXAM I IN CLASS**
10. Key concepts: trade
    (a) **[Mar 20]** Mankiw, ch.9
    (b) **[Mar 22]** Krugman selected readings
11. Trade and the environment
    (a) **[Mar 27-29]** Ederington et al. (2005) "Footloose and Pollution-free" *The Review of Economics and Statistics*
12. **SPRING BREAK, APRIL 2-6**
13. Case I: Air pollution and tradeable permit systems
    (a) **[Apr 10, OPTIONAL]** Selections from Tietenberg (2006) ch 15
    (b) **[Apr 10-12]** Schmalensee et al (1998) "An Interim Evaluation of Sulfur Dioxide emissions Trading" *The Journal of Economic Perspectives*
    (c) **[Apr 12]** Acid rain program results (US EPA)

HOMEWORK 3 DUE, April 17

14. Case II: Water (transboundary)
    (a) **[Apr 17]** Mitchell (2002) "Can the Mosquito Speak?" *Rule of Experts: Egypt, Techno-politics, Modernity*
    (b) **[Apr 17]** Sida (2009) "Getting Transboundary Water Right: Theory and Practice for Effective Cooperation"
15. Case III: Global air pollutants (greenhouse gases)
    (a) **[Apr 19]** Stern Report (2007), Part I, Chapter 1
    (b) **[Apr 24]** Alday et al (2010) "Designing Climate Mitigation Policy" *Journal of Economic Literature*
    (c) **[Apr 26]** Robert Stavins' assessment of climate negotiations
16. Case IV: Deforestation (discount rates)
    (a) **[May 1]** Pfaff et al (2009) "Policy Impacts on Deforestation: Lessons from Past Experiences to Inform New Initiatives" working paper, Duke University
17. Environmental justice

(a) **[May 3]** Fullerton (2009) "The Distributional Effects of Environmental and Energy Policy" *Introduction*

(b) **[May 3]** Curtis and Schneider (2011) "Understanding the demographic implications of climate change: estimates of localized population predictions under future scenarios of sea-level rise" *Population and Environment*

HOMEWORK 4 DUE MAY 3

18. **EXAM II REVIEW, MAY 8**

19. **EXAM II IN CLASS, MAY 10**