Subject: EBGN     Number: 510

Course Title: Natural Resource Economics

Section: 

Semester/year: Autumn 2014

Instructor or Coordinator: Ian Lange

Contact information (Office/Phone/Email): EN 329/303-384-2430/ilange@mines.edu
Office hours: W 11-12
Class meeting days/times: TR 11-12:15
Class meeting location: CO 219
Web Page/Blackboard link (if applicable):

Teaching Assistant (if applicable):

Contact information (Office/Phone/Email):

Instructional activity: __30__ hours lecture __ hours lab __ semester hours

Course designation: ___ Common Core ___ Distributed Science or Engineering
___ Major requirement ___ Elective ___ Other (please describe ___Core for
MEE MS/PhD program___________)

Course description from Bulletin:

Textbook and/or other requirement materials:

Required text: None, we will use journal articles

Other required supplemental information: Readings as specified/given on Blackboard

Students are welcome to refer to any resource or energy economics textbook, such as International Energy Markets by Dahl or Environmental Economics: In theory and practice by Hanley, Shogren and White

Student learning outcomes: At the conclusion of the class students will...

1. Optimal renewable and non-renewable resource use
2. Market structure effects on optimal use
3. Basic market structure for fossil fuels
4. Where to find basic data on energy supply and consumption
5. Basic economic thinking/intuition skills
6. How to organize basic information in a paper/presentation
7. How to write/present your thoughts in a clear and concise manner

Brief list of topics covered:

1. Optimal harvest of a forest
2. Optimal extraction of a non-renewable resource (coal, oil, minerals, etc)
3. Markets for non-renewable resources
4. Reserves of non-renewables
5. Characteristics of non-renewable resource markets

Policy on academic integrity/misconduct: The Colorado School of Mines affirms the principle that all individuals associated with the Mines academic community have a responsibility for establishing, maintaining an fostering an understanding and appreciation for academic integrity. In broad terms, this implies protecting the environment of mutual trust within which scholarly exchange occurs, supporting the ability of the faculty to fairly and effectively evaluate every student’s academic achievements, and giving credence to the university’s educational mission, its scholarly objectives and the substance of the degrees it awards. The protection of academic integrity requires there to be clear and consistent standards, as well as confrontation and sanctions when individuals violate those standards. The Colorado School of Mines desires an environment free of any and all forms of academic misconduct and expects students to act with integrity at all times.

Academic misconduct is the intentional act of fraud, in which an individual seeks to claim credit for the work and efforts of another without authorization, or uses unauthorized materials or fabricated information in any academic exercise. Student Academic Misconduct arises when a student violates the principle of academic integrity. Such behavior erodes mutual trust, distorts the fair evaluation of academic achievements, violates the ethical code of behavior upon which education and scholarship rest, and undermines the credibility of the university. Because of the serious institutional and individual ramifications, student misconduct arising from violations of academic integrity is not tolerated at Mines. If a student is found to have engaged in such misconduct sanctions such as change of a grade, loss of institutional privileges, or academic suspension or dismissal may be imposed.

The complete policy is online.

Grading Procedures: Midterm: 35%  Final: 40%  Group Presentation: 25%

Midterm and the Final are a mixture of definitions and short answer.

For the group presentation, four students will put together a 10 minute presentation on:

(i) The energy balance of a country [what resources do they have, consume, export, import, etc] or
(ii) An evaluation of a proposed piece of energy policy [what is it, merits, drawbacks, who is for/against it] or
(iii) A report or academic article of interest to the group

Please have the topic of your group’s presentation approved by me. The goal behind the presentations is to provide the class with additional information about energy policy outside of my lectures. Presentations will be marked on their clarity, depth of understanding shown, and quality. It is expected that each member of the group will speak during the presentation. In the first meeting, I will provide guidance on giving a presentation.

Coursework Return Policy: The goal is to get coursework feedback within two weeks.

Absence Policy (e.g., Sports/Activities Policy): Please notify me ahead of time if you will be absent for tests or the final.

Homework:
- Homework must be turned in before it is due to be graded – plan ahead.
- Exams: If you will be absent during a scheduled exam, you should schedule a make-up time before you leave.
Detailed Course Schedule:

- Week 1 (August 19): Introduction to Course and the Profession of Economics
- Week 2 (August 26): Optimal Harvest of a Forest
  Brown (Section 3.2, p 887-889)
- Week 3 (September 2): Optimal Extraction of Non-Renewable Resource
  Krautkraemer (Section 1 and 2; p 2065-2069); Hotelling
- Week 4 (September 9): Variants on the Hotelling Model
  Anderson, Kellogg, and Salant; Hartley and Medlock
- Week 5 (September 16): Price Paths and Empirical Validity
  Krautkraemer (Section 4; p 2078-2087); Slade and Thille
- Week 6 (September 23): Reserves of Non-renewables
  Krautkraemer (Section 5; p 2087-2091); Aguilera et.al.
- Week 7 (September 30): Midterm and Review
- Week 8 (October 7): Resource Cycles and Curses
  Sachs and Warner; Brunnschweiler and Bulte
- Week 9 (October 14): No class the whole week
- Week 10 (October 21): Legal Issues in Resource Markets
  Stigler; Libecap and Smith; Ringlund et. al
- Week 11 (October 28):
- Week 12 (November 4): Presentations
- Week 13 (November 11): Presentations
- Week 14 (November 18): Suggestions from the Class
- Week 15 (November 25): No class the whole week
- Week 16 (December 2): Wrap-Up & Review

Readings

List of Readings (In Order):

http://www.jstor.org/stable/2698664

Literature, Vol. 36, No. 4 (Dec., 1998), pp. 2065-2107
http://www.jstor.org/stable/2565047

http://www.jstor.org/stable/1822328

Anderson, Soren T., Ryan Kellogg, and Stephen W. Salant, Hotelling Under Pressure. NBER working paper #20280
http://www-personal.umich.edu/~kelloggr/NBERw20280.pdf

http://ideas.repec.org/a/eee/eneeco/v30y2008i5p2459-2485.html


http://www.nber.org/papers/w5398.pdf


http://www.jstor.org/stable/3003160


Note: You must be accessing the links through the CSM server in order to view them.