Catalog Course Description: Prerequisite: ECON. 2102. Economic issues of both energy and environment. Energy issues include the historical development of energy resources, supply and demand considerations and projections of the future energy balance. Environmental issues are externalities, common property resources and government regulation. Policy considerations include environmental standards, pollution charges and property rights. Cost-benefit analysis and microeconomic theory are applied.

Course Objectives: This course addresses energy and other natural resources, and environmental issues including sustainability, building primarily upon applied microeconomics with a focus on environmental market failures and market- and government-based solutions. Tools include ethics, valuation of environmental goods, cost-benefit analysis, the theory of non-renewable (e.g. oil) and renewable (e.g. fisheries) resources, and sustainability. Issues include global warming, running out of oil and other natural resources, and market vs. government approaches.


Readings on energy, environment, and related topics

I. Theory and Tools of Environmental, Energy, and Resource Economics

1/9, 1/11 Introduction Chapter 1  

1/18 Value Systems and Economic Systems Chapter 2

1/23, 1/25 The Economics of Market Allocation Chapter 3

1/30, 2/1 Externalities, Market Failures, and Policy Interventions Chapter 4

2/6, 2/8 The Economics of Natural Resource Systems Part I: Theory and Concepts Chapter 5

2/13, 2/15 Review Ch 1-5, Exam I Ch’s 1-5
II. Policy: Natural Resources, Environment, Energy, and Global Climate Change

2/20, 2/22 The Economics of Natural Resource Systems
   Part II: Marine Capture Fisheries
   Chapter 6

2/27, 2/29 Measurement and Analysis of Benefits and Costs
   Chapter 7

Spring Break March 5-10

3/12, 3/14 Creating Economic Incentives for Environmental Protection and Resource Management
   Chapter 10

3/19*, 3/21 Global Climate Change: Science, Policy, and Economics
   Chapter 11
   * Last day to withdraw from class March 19

3/26, 3/28 Review Ch 6, 7, 10, 11, Exam II Ch’s 6, 7, 10, 11

III. Topics on the Economics of Energy and Sustainability

4/2, 4/4 Undergraduate Student Presentations: Selections from Section 2 (Energy) of 100 Issues
   April 6-7 Spring Weekend

4/9 Introduction to the Concept of Sustainability
   Chapter 12

4/11, 4/16 Recognizing Interdependencies and Thinking Long Term
   Chapter 13

4/18, 4/23 Sustainable Economic Development
   Chapter 14

4/25, 4/30 Graduate Student Presentations: Topics in Energy and Environment
   5/2 Reading Day

M 5/7 11-1:30 AM FINAL EXAM: Chapters 12-14, Selected Issues and Topics from Undergraduate and Graduate Presentations
Course Grade: A = 90+; B = 80-89; C = 70-79; D = 60-69; F = <60

Exams  I, II, and Final Exam each count 25% of your course grade (graduate student exams will be graded separately and held to a higher standard than undergraduate exams).

Student Paper counts 15% of your grade (graduate students).

Homework counts 10% of your grade

Total: Exams + Paper + Homework = 100%

Student Paper:
Graduate students will write a paper of approximately 15-20 pages on an energy topic. Examples include but are not limited to: traditional fuels such as oil, nuclear, etc; alternative fuels such as wind, solar, etc.; electricity, energy efficiency and conservation; environmental aspects of energy; energy sustainability, etc. Reference to Section 2 (Energy) of 100 Issues may be helpful in understanding the types of energy issues economists address. It may be appropriate to further develop one of these issues. A prospectus for an approved topic must be turned in no later than 11 am W, Feb. 29 (preferably earlier) and completed papers must be turned in by 11 am W, April 25. Late prospectuses or papers will result in a decrease of 10% for each day late (papers turned in after 11 AM on the due dates are late and will be assessed a 5% penalty). Prospectuses not turned in by 11 am F, Mar. 2 or papers not turned in by 11 am W, May 2, will not be accepted and will result in a grade of 0 for the paper.

The prospectus must include:
- Proposed subject of the paper
- Purpose of the paper
- Major question to be addressed
- Calendar for completing the paper
- Outline of the paper
- List of sources (Minimum of 3; at least 2 of which are refereed journal articles)

You should consult a guide to writing papers and/or writing in general. I expect papers to be written well. Poorly written papers will result in a lower grade. This link contains a good, concise guide to writing Economics papers: http://www.pitzer.edu/academics/field_groups/economics/papers.asp.

Homework: Students will volunteer when homework is assigned to present solutions in the following class. Those students who do not volunteer will be selected (in advance) randomly. There may also be assignments that students turn in for a grade. Students who have an unexcused absence will receive a 0 for not presenting or turning in a solution when the homework is due.

I recommend strongly that you to do an initial reading before the material is to be discussed if at all possible. An initial reading will greatly improve your ability to make useful contributions to class discussions. Then, re-read more carefully after class. Tests will cover class notes, the text, and current events.

In the event of a missed exam due to documented illness or a death in the family, a make-up exam will take place on Monday, April 30, 9-10:30 am, just before the last class meeting, unless another time can be arranged.
The Belk College of Business Diversity Statement

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

THE UNC CHARLOTTE CODE OF STUDENT ACADEMIC INTEGRITY

The UNC Charlotte Code of Student Academic Integrity governs the responsibility of students to maintain integrity in academic work, defines violations of the standards, describes procedures for handling alleged violations of the standards, and lists applicable penalties. The following conduct is prohibited in that Code as violating those standards:

A. Cheating. Intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices in any academic exercise. This definition includes unauthorized communication of information during an academic exercise.

B. Fabrication and Falsification. Intentional and unauthorized alteration or invention of any information or citation in an academic exercise. Falsification is a matter of altering information, while fabrication is a matter of inventing or counterfeiting information for use in any academic exercise.

C. Multiple Submission. The submission of substantial portions of the same academic work (including oral reports) for credit more than once without authorization.

D. Plagiarism. Intentionally or knowingly presenting the work of another as one's own (i.e., without proper acknowledgment of the source). The sole exception to the requirement of acknowledging sources is when the ideas, information, etc., are common knowledge.

E. Abuse of Academic Materials. Intentionally or knowingly destroying, stealing, or making inaccessible library or other academic resource material.

F. Complicity in Academic Dishonesty. Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.

A full explanation of these definitions, and a description of procedures used in cases where student violations are alleged, is found in the complete text of The UNC Charlotte Code of Student Academic Integrity. This Code may be modified from time to time. Students are advised to contact the Office of the Dean of Students or go to www.legal.uncc.edu/policies/ps-105.html to ensure they consult the most recent edition.