ECON 3090: TOPICS IN ECONOMICS: ENERGY ECONOMICS

Fall Semester 2016          Room Friday 117          TR 12:30 - 1:45 p.m.

INSTRUCTOR: Peter Schwarz, Professor of Economics and Public Policy and Senior Faculty Associate, Energy Production and Infrastructure Center (EPIC), UNC Charlotte, and Visiting Professor, China University of Mining and Technology

OFFICE: Friday 223A  OFFICE HOURS: TR 10:00 – 11:30 a.m or by appointment.
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Canvas: Grades, announcements, discussion board, correspondence

Course Description
This course applies microeconomics to topics in energy in order to evaluate the advantages and disadvantages of each supply source in meeting energy demand. We develop the fundamental microeconomic tools in the first part of the course. In the second part of the course, we examine conventional fuels: oil, natural gas, coal, and nuclear energy. We examine emerging alternatives, such as wind, solar and energy efficiency in the third part of the course. Time permitting, we will examine the use of energy to produce electricity, first subject to traditional regulation and then under competitive restructuring.

Course Prerequisites
ECON 2012 (Principles of Microeconomics with C or better, but B or better recommended)

Course Objective
The objective of the Energy Economics Topics course is to understand how economics—primarily microeconomics—influences the demand and supply of energy, and the role of market and government in using energy resources efficiently to achieve society’s goals.

Textbook
I have the publisher’s approval to make available draft chapters of my text, Energy Economics, under contract with Routledge. I will post chapter pdfs on Canvas, watermarked with the publisher’s copyright. The chapters are for your use only. Sharing this material with individuals who are not registered for this class or reproducing this material without my expressed consent or the consent of the publisher (Routledge) is a violation of the copyright.

Determination of Grades
There will be three exams, the third of which will take place during the Final Exam period. The third test will be given at 11:00 a.m. -1:30 pm on Thursday Dec. 15 (the final examination time assigned for this course). Each of the three exams count 25%. There will be occasional quizzes on the homework (questions/reading), both announced and unannounced, counting the remaining 25%. Quizzes and each of the three tests will consist of multiple choice and discussion questions. A = 90-100; B = 80-89.9; C = 70-79.9; D = 60-69.9; F = < 60.

Homework
I will post reading assignments and homework questions on Moodle.

Quizzes
Announced and unannounced; based upon assigned reading and homework questions. Both multiple choice and short answer/discussion questions are possible. I will drop the lowest quiz in determining your quiz average.

Attendance
If you are not in class during a quiz for an unexcused reason, your grade will be 0. Arriving late, leaving early, or leaving and returning during class could cause you to miss a quiz or to have less time available to complete it. If you have a university-sanctioned activity or religious holiday, family crisis, or illness, please let me know before class. If I accept your reason before class time and there is a quiz that day, I will omit it from your quiz average.
The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by announcement in class and on Canvas.

Outline of Topics and Reading Assignments

I. Economic Fundamentals
   1. Energy Overview (Week 1—T Aug. 23, R Aug. 25)  
      Chapter 1

II. Energy, Environment, and Sustainability (Week 2—T Aug. 30, R Sep. 1)
   2. Chapter 2
   Labor Day (Week 5 M Sep. 7)

III. Static Efficiency (Week 3 – T Sep. 6, R Sep. 8)
   3. Chapter 3

IV. Dynamic Efficiency (Week 4 – T Sep. 13, R Sep. 15)
   4. Chapter 4

(Week 5) Review for Exam 1 – Chapters 1-4 (T Sep. 20); EXAM 1 (R Sep. 22)

II. Conventional Energy Sources
   5. Oil (Week 6 – T Sep. 27, R Sep. 29)  
      Chapter 5

VI. Natural Gas (Week 7 – T Oct. 4, R Oct. 6)
   6. Chapter 6

Fall Break (M, T Oct. 10, 11; No class T Oct. 11).

VII. Coal (Weeks 8, 9 – R Oct. 13, T Oct. 18)
   7. Chapter 7

VIII. Nuclear Energy (Weeks 9, 10 – R Oct. 20, T Oct. 25)
   8. Chapter 8

The last day to withdraw from courses with grades of W is T, Oct. 25.

(Weeks 10, 11) Review for Exam 2 – Chapters 5-8 (R Oct. 27); EXAM 2 – Chapters 5-8 (T Nov. 1)
III. Alternative Energy Sources
9. Energy Conservation and Efficiency (Week 11, 12 – R Nov. 3, T Nov. 8)
Chapter 9

X. Alternative Fuels (Weeks 12, 13 – R Nov. 10, T Nov. 15)
10. Chapter 10

D. Additional Topics

11. Traditional Electricity Regulation (Weeks 13, 14 – R Nov. 17, T Nov. 22)
Chapter 12

Thanksgiving Nov. 23-26 (No class R Nov. 24)

12. Competitive Electricity Restructuring (Week 15 -- T Nov. 29, R Dec. 1)
Chapter 13

E. Summing Up and Review Chapters 9, 10, 12, 13 (Week 16 – T Dec. 6)

W Dec. 7: Last Day of Classes; R Dec. 8: Reading Day

FINAL EXAM: R Dec. 17 11:00 am-1:30 pm (Chapters 9, 10, 12, 13)

MAKE-UP POLICY: If you are unable to take Exam I or II due to an excused absence, it will be
rescheduled as close as possible to the original date. If it cannot be scheduled before the exam is returned, the
make-up will take place on Wednesday, Dec. 7 12:30-1:45 pm, or if necessary, an alternate time on that day.

Academic Integrity
Students are required to abide by the UNC Charlotte Code of Student Academic Integrity. Violations of the
Code will result in disciplinary action as provided in the Code. The Code is available from the Dean of
Students Office or online at http://www.legal.uncc.edu/policies/ps-105.html.

Disability Accommodations
UNC Charlotte is committed to access to education. If you have a disability and need academic
accommodations, please provide a letter of accommodation from the Office of Disability Services early in the
semester. For more information about accommodations, you may contact the Office of Disability Services at
704-687-0040 or visit the Office of Disability Services itself in Fretwell 230.

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.