

Economics 427 (L01) (Energy Economics & Policy)

Instructor:	W D Walls	Lecture Location:	PF 110
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Office:	SS 340		
Office Hours:	MW 0950-1030 <u>or by appt. only</u>	Fall 2016	

Course Description:

This course is provides theoretical and empirical analysis of energy economics.

Course Objectives/Learning Outcomes:

This course covers both theoretical and empirical analysis of individual and industrial demand for energy, energy supply, energy markets, and public policies affecting energy markets. Students will learn to apply the tools of economics to the energy industries including crude oil, natural gas, coal, electricity, and nuclear power. Specific topics will include energy taxation, price regulation, deregulation, energy efficiency and emissions.

Course Outline

- Introduction and Background
- Review of the Basics of Supply, Demand and Price Formation in Competitive Markets
- Energy Demand: Short Run and Long Run Price and Income Elasticities; review of Multivariate Regression Analysis
- Energy Supply and the Economics of Depletable Resources
- World Oil Markets and Energy Security
- Natural Gas Price Regulation, Deregulation and Markets
- Electricity
- Risk Management, Futures Markets and Derivatives
- Energy and Climate Change
- Internalizing Environmental Externalities with a Focus on Cap and Trade Mechanisms
- Coal
- Nuclear Power
- Energy Efficiency Policies
- Renewable Energy Policies

Note: The course objectives, outline and readings have drawn upon the Energy Economics course materials of the MIT OpenCourseWare project.

Prerequisites/corequisites:

Prerequisite: ECON 357, ECON 395.

Textbook(s):

There is no textbook for this course. The course draws heavily on journal articles. Students will not be held responsible for the more sophisticated mathematical and statistical material in some of the articles. The reading list will be posted on the course website available through the D2L web portal.

Other Reference Materials:

The US Department of Energy, Energy Information Administration (EIA) is an excellent source of current information on energy economics. Students should be familiar with its website (www.eia.doe.gov).

There are many articles in economic journals that may be of particular interest to this class, such as those published in *Annual Review of Energy*, *Journal of Energy and Development*, *The Energy Journal*, *Energy Economics*, *ENERGY---The International Journal*, and *Energy Policy*. For reference to other recent articles on the economics of the oil industry see the relevant sections (Q4) in the *Journal of Economic Literature*, the *Journal of Energy Literature*, and draw on ECONLIT as a journal search engine.

Governments also publish useful material on the energy industries. In Alberta, material from the Energy and Utilities Board and Alberta Department of Energy are of particular interest. For the Canadian federal government, see the National Energy Board, the Science Council of Canada, the Geologic Survey of Canada and Department of Natural Resources. For the US see the Department of Energy (especially the Energy Information Administration), and Federal Energy Regulatory Commission. The OECD also has a number of interesting recent publications on energy, including publications of the International Energy Agency (IEA). The Canadian Energy Research Institute (CERI) also publishes several sector-specific reports that provide up-to-date information.

Desire2Learn

This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <http://d2l.ucalgary.ca> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

Grade Determination and Final Examination Details:

The grade will be based upon three in-class quizzes and the final exam as follows:

In-class Quizzes (3 @ 15% each)	45%
Term Paper	25%
Final Examination (comprehensive)	30%

Quiz dates are October 19, November 9, and November 30.

The final exam will be scheduled by the Registrar and held in the classroom. It will be of two hours duration.

The final course grade will be obtained by weighting the numerical values (rather than letter grades) on the various course components and translating the numerical result back into a final letter grade for the

course. The overall numerical score will be rounded off the *nearest* whole number. The numerical-letter grade cut-off values will be as follows:

A+	99-100	B	82-87	C-	70-71
A	92-98	B-	80-81	D+	68-69
A-	90-91	C+	78-79	D	60-67
B+	88-89	C	72-77	F	0-59

Deviations from the conversion chart listed above will only be made if it *improves student grades*.

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

Non-programmable calculators WILL be allowed during the writing of tests or final examinations.

There will be a Registrar scheduled final examination, held in a classroom, lasting 2 hours.

Reappraisal of Grades

For reappraisal of graded term work, see Calendar I.2

<http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

For reappraisal of final grade, see Calendar I.3

<http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class; no reappraisal of term work is permitted after the 15 days. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

Plagiarism and Other Academic Misconduct

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct,

<http://www.ucalgary.ca/pubs/calendar/current/k-2.html>

Academic Accommodation

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, Visit www.ucalgary.ca/access/.

Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>

Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than 14 days after the start of this course.

Absence from a Test/Exam

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES under any circumstances, nor may the quizzes be written early. Students unable to write the quizzes because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam www.ucalgary.ca/registrar/exams/deferred_final Under no circumstance will this be accommodated by the department.

Uncollected Term Work

Students' papers will be returned during regular class time or at the time of the final exam. Papers may also be picked up by students during regular Office Hours. Uncollected coursework will be discarded at the end of the term.

Students' Union Vice-President Academic:

Alicia Lunz

Phone : 403-220-3911

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Students' Union Faculty Representative (Arts)

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E-mail arts1@su.ucalgary.ca arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca

Society of Undergraduates in Economics (S.U.E.):

www.ucalgary.ca/sue

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career partnerships with the Career Centre through hosting industry nights and information sessions, recognizing achievements in teaching, and organizing social events for members.

Faculty of Arts Program Advising and Student Information Resources

- Have a question, but not sure where to start? The Arts Students' Centre is your information resource for everything in Arts! Drop in at SS102, call them at 403-220-3580 or email them at artsads@ucalgary.ca. You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns, including program planning and advice.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them in the MacKimmie Library Block.
- Online writing resources are available at <http://www.ucalgary.ca/ssc/resources/writing-support>

Safewalk/Campus Security: 403 220 5333
Emergency Assembly Point: Social Sciences Food Court