

Economics 327(L01) (Petroleum Economics)

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Lecture Location: ST131
Lecture Days/Time: TuTh11:00-12:15

Office: SS344
Office Hours: Tu 12:30-13:15

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Course Description

This course is an introduction to the economics of the petroleum industry. Topics covered will include the following.

Topic	References/Readings:
1. Introduction and Overview of Oil Market	D2L Tables Part A, BP/IEA websites below, Dahl Ch.2
2. Evolution of the Petroleum Industry	D2L Tables/Graphs Package Part B, Danielsen Ch.4-7
3. Short/Medium Term Industry Analysis	D2L/Package Part C, Danielsen Ch.3, Dahl Ch.6
4. Long Run Oil Pricing Theory	Danielsen Ch.2, Dahl Ch.12
5. Global Energy Supplies, Consumption and Outlook	D2L Tables Part E, BP, IEA, DOE/EIA, other websites below

Course Objectives/Learning Outcomes

The main objective of this course is to provide the student with an understanding of the role of petroleum in the world economy. The development and significance of the oil industry over time will be reviewed and prospects for oil in the world's economic future will be evaluated. Basic analytical concepts such as supply, demand, perfect and imperfect competition will be used to explain the workings of the global petroleum industry. There will be particular emphasis on the influence of market power on the world's petroleum industry over time.

Prerequisites/corequisites

Econ 201 and 203

Required Textbook(s)

Class Package – This can be purchased from Bound and Copied at the start of the term.

Reserved Readings

Carol Dahl, *International Energy Markets – Understanding Pricing, Policies and Profits*, Pennwell Publishing, 2004.

Albert L. Danielsen, *The Evolution of OPEC*, Harcourt Brace Jovanovich, 1982.

James M. Griffin and Henry B. Steele, *Energy Economics and Policy*, Academic Press, 1986.

Peter Tertzakian, *A Thousand Barrels a Second*, McGraw Hill, 2007.

Peter Tertzakian, *The End of Energy Obesity*, John Wiley and Sons, 2009.

Websites

The following websites provide significant amounts of information with respect to the world's petroleum industry:

International Energy Agency (IEA) – www.iea.org

Organization of Petroleum Exporting Countries (OPEC) – www.opec.org

US Department of Energy/Energy Information Administration (DOE/EIA) – www.eia.doe.gov

British Petroleum (BP) - www.bp.com

In addition, the following specific resources from the previous websites above plus from other websites will be referred to during the course (in some cases frequently):

Severin Borenstein, *The Private and Public Economics of Renewable Electrical Generation*, NBER Working Paper 17695, Cambridge, 2011,

<http://www.nber.org/papers/w17695.pdf>

British Petroleum (BP) – Statistical Review of World Energy –

<http://www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy.html>

Geoffrey Heal, *The Economics of Renewable Energy*, NBER Working Paper 15081, Cambridge, 2009,

<http://www.nber.org/papers/w15081.pdf>

David J. Mackay, *Sustainable Energy – Without the Hot Air* (free online version), 2008

<http://www.inference.eng.cam.ac.uk/sustainable/book/tex/sewtha.pdf>

International Energy Agency (IEA), Key World Energy Statistics,

<http://www.iea.org/publications/freepublications/publication/KeyWorld2014.pdf>

International Energy Agency (IEA), Energy Technology Perspectives,

http://www.iea.org/publications/freepublications/publication/EnergyTechnologyPerspectives_ES.pdf

Timmons, David, Jonathan M. Harris and Brian Roach, *The Economics of Renewable Energy*, Global Development and Environment Institute, Tufts University, 2014,

http://www.ase.tufts.edu/gdae/education_materials/modules/renewableenergyecon.pdf

Course Requirements/Assessments:

Assignment	10% (Due Date: April 4)
Midterm Examination	40% (March 14 in class)
Final Examination	50% (April 15-26)

Tests and final exams are marked on a numerical (percentage) basis, then converted to letter grades. The course grade is then calculated using the weights indicated above.

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

Department of Economics Criteria for Letter Grades. Economics professors use the following criteria when assigning letter grades:

Grade	Grade Point Value	Description	Grade	Grade Point Value	Description
A+	4.00	Outstanding	C+	2.30	
A	4.00	Excellent-superior performance, showing-comprehensive understanding of subject matter	C	2.00	Satisfactory – basic understanding of the subject matter
A-	3.70		C-	1.70	Receipt of a grade point average of 1.70 may not be sufficient for promotion or graduation. (See individual undergraduate faculty regulations.)
B+	3.30		D+	1.00	
B	3.00	Good – clearly above average performance with knowledge of subject matter generally complete.	D	1.00	Minimal pass – marginal performance; generally insufficient preparation for subsequent courses in the same subject.
B-	2.70		F	0	Fail – unsatisfactory performance or failure to meet course requirements
			I	0	Incomplete – unsatisfactory (effective January 2007)

Grading Scale

A+	98 – 100	B	75 - 79	C-	60 – 62
A	90 - 97	B-	70 – 74	D+	55 – 59
A-	85 - 89	C+	67 – 69	D	50 – 56
B+	80 -84	C	63 – 66	F	0 – 49

Tests and final exams are marked on a numerical (percentage) basis, then converted to letter grades. The course grade is then calculated using the weights indicated above.

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

The midterm examination on March 14 **WILL** involve multiple choice questions. Non-programmable calculators **WILL NOT** be allowed during the writing of the midterm examination.

There will be a Registrar scheduled final examination, held in a classroom, lasting 2 hours. Non-programmable calculators **WILL** be allowed during the writing of the final examination. **The use of graphing calculators, cell phones, computers, tablets, or any device with an alphanumeric keyboard is not permitted.**

The final examination **WILL NOT** involve multiple choice questions.

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.ucalgayr.ca/pubs/calendar/current/k.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 www.ucalgary.ca/policies/files/policies/student-accommodation-policy_0.pdf

Absence from a Quiz/Test/Exam

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES/TESTS/EXAMS under any circumstances, nor may the quizzes/tests/exams be written early. Students unable to write the quizzes/tests/exams 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.

Notes:

- All students must comply with the regulations published in the University Calendar concerning "Intellectual Honesty," "Examinations," etc.
- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor *within fifteen days* of the work being returned to the class.
- It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 403-220-8237. 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 fourteen (14) days after the start of this course.
- **Late assignments will not be accepted under any circumstances.**
- Students should be aware that no "make-up" midterms will be given. Any student who finds it necessary to miss the midterm must notify the instructor in advance and produce a valid medical certificate or other required documentation in order to have the weighting moved to the final examination. Also, examinations will not be given before the indicated dates. Deferred final examinations do not have to cover the same material or have the same format as the regular final examination.
- **The use of cell phones for any purpose in class is prohibited. Computers may be used for note-taking purposes only.**
- Please note that the following types of emails will receive no response: emails not addressed to anyone in particular; emails where the recipient's name is not spelled

correctly; anonymous emails; emails in which the sender has not identified which course and section he/she is taking; and, emails involving questions that are specifically addressed on the course outline.

Important Dates

Please check: <http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>

Faculty of Arts Students' Association (F.A.S.A.):

Economics Department Representative

Office: SS 803, E-mail: econrep@fasaucalgary.ca Web: www.fasaucalgary.ca

Society of Undergraduates in Economics

www.ucalgarysue.com

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>

Evacuation Assembly Point

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at

www.ucalgary.ca/emergencyplan/assemblypoints

Please check this website and note the nearest assembly point for this course

Safewalk

The Safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year.

Call 403-220-5333