

# Department of Economics Faculty of Arts

## Economics 327(L01) Petroleum Economics

Instructor: Ron Schlenker Lecture Location: ICT114
Phone: 403-220-4096 Lecture Days/Time: R 1830-2115

Email: rschlenk@ucalgary.ca

Office: SS344

Office Hours: T 1230-1320

**Textbook:** [Required] Class Package – This can be purchased from Bound and Copied at the start of the term.

### Book(s) on Reserve:

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.

**Desire2Learn:** This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <a href="http://d2l.ucalgary.ca">http://d2l.ucalgary.ca</a> 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.

### **Course Objective:**

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.

### **Course Outline**

### D2L Tables Part A,BP/IEA websites below, Dahl Ch.2 D2L Tables/Graphs Package Part B,Danielsen Ch.4-7 D2L/Package Part C, Danielsen Ch.3, Dahl Ch.6 Danielsen Ch.2, Dahl Ch.12 D2L Tables Part E, BP, IEA, DOE/EIA, other websites

References/Readings:

## Evolution of the Petroleum Industry Short/Medium Term Industry Analysis Long Run Oil Pricing Theory Global Energy Supplies, Consumption and Outlook

1. Introduction and Overview of Oil Market

### Websites

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

International Energy Agency (IEA) – <a href="www.iea.org">www.iea.org</a>
Organization of Petroleum Exporting Countries (OPEC) – <a href="www.opec.org">www.opec.org</a>
US Department of Energy/Energy Information Administration (DOE/EIA) – <a href="www.eia.doe.gov">www.eia.doe.gov</a>
British Petroleum (BP) - <a href="www.bp.com">www.bp.com</a>

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):

below

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

Geoffrey Heal, *The Economics of Renewable Energy,* NBER Working Paper 15081, Cambridge, 2009, <a href="http://www.nber.org/papers/w15081.pdf">http://www.nber.org/papers/w15081.pdf</a>

David J. Mackay, Sustainable Energy – Without the Hot Air (free online version), 2008 <a href="http://www.inference.eng.cam.ac.uk/sustainable/book/tex/sewtha.pdf">http://www.inference.eng.cam.ac.uk/sustainable/book/tex/sewtha.pdf</a>

International Energy Agency (IEA), Key World Energy Statistics, <a href="http://www.iea.org/publications/freepublications/publication/KeyWorld2014.pdf">http://www.iea.org/publications/freepublications/freepublications/publication/KeyWorld2014.pdf</a>

International Energy Agency (IEA), Energy Technology Perspectives, <a href="http://www.iea.org/publications/freepublications/publication/EnergyTechnologyPerspectives">http://www.iea.org/publications/freepublications/publications/publication/EnergyTechnologyPerspectives</a> 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

### **Grade Determination and Final Examination Details:**

Assignment 10% (Due Date: November 26)

Midterm Examination 40% (October 29 in class)
Final Examination 50% (December 11-22)

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. The following letter grade equivalences will apply:

A+	98 – 100	В	75 – 79	C-	60 – 62
Α	90 – 97	B-	70 – 74	D+	55 – 59
A-	85 – 89	C+	67 – 69	D	50 – 54
B+	80 – 84	С	63 – 66	F	0 – 49

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

#### **Examinations:**

- 1. 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.
- 2. There will be a Registrar scheduled final examination, held in a classroom, lasting 2 hours.
- 3. The midterm exam may involve multiple choice questions.

### 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.

Students' Union Vice-President Academic:

Stephan Guscott
Phone: 403-220-3911
E-mail suvpaca@ucalgary.ca

Students' Union Faculty Representative (Arts)
Phone: 403-220-3913 Office: MSC 251

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. They invite you to join by contacting <a href="mailto:sue@ucalgary.ca">sue@ucalgary.ca</a>.

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
  <a href="http://arts.ucalgary.ca/undergraduate">http://arts.ucalgary.ca/undergraduate</a> 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 <a href="http://www.ucalgary.ca/ssc/resources/writing-support">http://www.ucalgary.ca/ssc/resources/writing-support</a>

Emergency Assembly Point: Social Sciences Food Court

RCS/mi 2015-08-31