

Department of Economics Faculty of Arts

Economics 327(L01) (Petroleum Economics)

Instructor: Karl Pinno Lecture Location: ICT 116

Phone: 403 220 5866 Lecture Days/Time: R 18:30 - 21:15

Email: kpinno@shaw.ca

Office: SS 405

Office Hours: by appointment or right after class Winter 2015

Textbook(s): Folder of readings available from *Bound & Copied*

Instructor supplied notes will also be made available for material not covered from Bound & Copied

Book(s) on Reserve:

none

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 using or through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. The default is your University of Calgary e-mail address.

Course Outline:

The course will consist of material provided by the instructor and the package of articles from <u>Bound & Copied</u>. (Note: I have only listed some of the articles from the <u>Bound & Copied</u> package more may be forthcoming). The content of the course is organized as follows:

Part 1: A brief history of oil

- Pre 1859
- 1859-1911
- Early twentieth century
- Mid to late 20th century
- 1980-1984
- 1984-1990
- 1990-2008

Part 2: Recent history, current conditions in global oil market and building a medium term outlook

Oil Supply

- Where is global oil coming from and likely to come from in the future? What role has technology played in the last 10 years? 5 years? What role will it play in the future? How has the supply response dynamic for OPEC changed in the last decade?
- Building a Global Supply curve- At what price will production expand? What is the elasticity of supply response to a change in the own price?
- Conventional
 - o OPEC
- Unconventional
 - o Oil sands
 - Mining
 - In situ (We will go main technological extraction methods ex SAGD)
 - o offshore
 - o Shale oil
 - Hydraulic Fracturing
 - o Oil shale
 - o Brazilian pre salt
- North America Transportation and Export Markets Issues
 - Pipelines
 - o Rail
 - o Export option for Canada
 - Should the US lift the export ban?

Oil Demand: Building a forecast and understanding the past.

- Global GDP Growth Drivers –What do falling oil prices tell us, if anything, about the state of the global economy?
- What role does the volatility of global GDP growth play in the volatility of oil prices?
- Is the empirical relationship between oil and GDP linear or nonlinear? An empirical survey.
- OECD demand growth
- Non OECD demand growth
- Key demand factors
 - o China
 - o Japan
 - o US
- How does oil price volatility impact the US economy a look at 36 indices of industrial production
- Europe
- The financial crisis of 2008 and evaluation of the global response
- The paradox of inequality
- Fuel Efficiency gains
- Market Design issues: Spotlight the Eurozone, tax reform, and our latest Nobel laureate
- A beautiful deleveraging?
- Structural unemployment: a look into technology, offshoring, and the distributional consequences of trade

Part 3 Refining

 Abdullah M. Aitani. "Oil refining and products." In Encyclopedia of Energy, Volume 4, Elsevier, 2004.

Part 4. Theory

- J. Griffin and H. Steele. "Criteria for efficient dynamic resource allocation." Chapter 3 from Energy Economics & Policy. Second edition, Academic Press, 1986.
- Adelman, M A, Watkins, G C "Reserve Prices and Mineral Resource Theory" from The Energy Journal, Vol. 29, Special Edition, pp. 1-16, 2008,
- Stevens Paul, "The determination of oil prices 1945-95" Energy Policy Vol. 23 No. 10 pp861-870, 1995
- J. Griffin and H. Steele. "OPEC Behavior and World Oil Prices." Chapter 3 from Energy Economics & Policy. Second edition, Academic Press, 1986

Part 5 Physical and Financial Trading of Markets

- Oil Prices
- Forward oil markets: futures and options
- Forward oil markets: options
- Managing oil price risk (hedging)
- Speculation in the oil market

Grade Determination and Final Examination Details:

- Because this course is offered as a once a week course, missing a class is the equivalent of
 missing an entire week of the semester. As such, the grade determination has been designed to
 reflect the relative importance of class attendance.
- Specially, we will have a quiz (except on April 9th) at the end of each lecture period. (The quiz will begin with approximately 1/2 hr to 20 minutes of class time remaining). The Quizzes will start on January 29 and run every week until April 9th, with the sole exception of Feb 19th -which is reading week. This constitutes 10 quizzes.
- Depending on our progress, the instructor reserves the right to cancel the quiz on our last scheduled class day, Apr. 9th. If a Quiz is held on April 9th it will be given at the beginning of the class.
- The lowest quiz grade will be dropped in the calculation of your grade.
- Students should expect a significant amount of granularity/specificity in quizzes as instructor is not asking students to do homework assignments or midterm. i.e., students should expect the quizzes to be challenging.
- Quiz questions may also come from videos or content shown or discussed in class that is not
 available on D2L or in the <u>Bound & Copied</u> material. The instructor assumes attendance and
 note taking is mandatory for all students.
- Students who are unable to write more than a quiz (beyond the one dropped quiz) because of an illness, family emergency or religious observance will have the quiz weight shifted to the final examination. Documentation MUST be provided. . Students are expected to catch up on missed material from other students, not the instructor.

- Final exam questions may also come from videos or content shown or discussed in class that is not available on D2L or in the <u>Bound & Copied</u> material. The instructor assumes attendance and note taking is mandatory for all students. Students are expected to catch up on missed material from other students, not the instructor.
- There will be no assignments and no midterm for this class.
- The final will be cumulative.

The final grade will therefore be determined as follows:

Quizzes (9 or 10 quizzes as explained above –the lowest quiz grade will be dropped) 50% Final

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. As a guide to determining standing, these letter grade equivalences will apply:

A+	95 – 100	В	73 – 76	C-	60 – 62
Α	85 – 94	B-	70 – 72	D+	56 – 59
A-	80 – 84	C+	67 – 69	D	50 – 55
B+	77 – 79	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.

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.

Quizzes, Tests and exams WILL NOT involve multiple choice questions.

Notes:

- 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 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.

Students' Union Vice-President Academic:

Hana Kadri

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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 sue@ucalgary.ca.

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.ucalqary.ca/ssc/resources/writing-support

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

KP/mi 2014-12-17