

Department of Economics Faculty of Arts

Economics 325 (01) The North American Oil Industry

Instructor: L. Yuan Lecture Location: ST 132

Phone: 403 220 5863 Lecture Days/Time: MWF 2:00 – 02:50

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Office: SS 416

Office Hours: MW 12:00 – 12:50 or by

appointment Winter 2018

Course Description

The course introduces students to the crude oil and natural industry in North America, focusing on exploration, development, production and refining. Topics include Canadian and US oil policies, shale revolution, energy mix dynamics, emission and environmental policy, industry taxation, and royalty regimes.

Course Objectives/Learning Outcomes

The main objective of this course is to provide the student with a basis for understanding the structure and economics of the petroleum industry in North America. By the end of the course the students will learn about:

- 1. The role of North American petroleum industry in the world
- 2. General characteristics of the petroleum production process, especially as it is unique to North America
- 3. Economic and policy forces that guide, inform and influence industry decision-making in investment, supply forecasts and pricing
- 4. The nature and responsibility of regulatory oversight in this market

Prerequisites/corequisites

Economics 201 and 203

Required Textbook(s)

None

Recommended Textbook(s)

Our Petroleum Challenge, Canadian Resources. Global Markets, 8th edition, (2013) Canadian Centre for Energy Information. (Available on D2L)

Dahl, Carol (2004), *International Energy Markets, Understanding Pricing, Policies and, Profits*, Latest edition, PennWell Publishing.

Additional reading to be available on D2L

Reserved Readings

Dahl, Carol (2004), *International Energy Markets, Understanding Pricing, Policies and, Profits*, Latest edition, PennWell Publishing.

Course Requirements/Assessments:

Websites

The following institutional websites provide significant amounts of information with respect to the petroleum industry:

Alberta Energy Resources Conservation Board (ERCB) – <u>www.ercb.ca</u>. Please download the ERCB ST-98 from here: http://www.ercb.ca/data-and-publications/statistical-reports/st98

Alberta Department of Energy (ADOE) – www.energy.gov.ab.ca

British Petroleum (BP) - www.bp.com

Canadian Association of Petroleum Producers (CAPP) – www.capp.ca

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

National Energy Board (NEB) - www.neb.gc.ca

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

US Department of Energy/Energy Information Administration (DOE/EIA) –

www.eia.doe.gov

Course Structure and Topics:

The Course is organized around readings and discussions in the following areas:

- 1. Overview of North American petroleum supply resources and markets
- 2. Understanding of the physical nature of petroleum and derivative products
- 3. The nature of supply and demand in the market
 - a. Crude Oil
 - b. Natural Gas
 - c. Finished Products
- 4. Economic theory and markets
- 5. Supply Cost and investment decisions
- 6. Price setting, market trading and differentials
- 7. Externalities and the Environment
- 8. Petroleum Transportation and Pipeline Restrictions
- 9. Shale Gas / Shale Oil in North America

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

 Quiz 1
 10%

 Quiz 2
 10%

 Quiz 3
 10%

 Term paper
 25%

Final Exam 45% (Registrar-scheduled)

There will not be any multiple choice questions in any of exams including both quiz and the final.

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

| Grade | Grade | Description | Gra | ade | Grade | Description |
|-------|-------|---|-----|-----|-------|---|
| | Point | | | | Point | |
| | Value | | | | Value | |
| A+ | 4.00 | Outstanding | C+ | | 2.30 | |
| А | 4.00 | Excellent-superior performance, showing-comprehensive understanding of subject matter | С | | 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 | |
| В | 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+ | 95 - 100 | В | 75 – 79 | C- | 60 - 62 |
|----|----------|----|---------|----|---------|
| Α | 90 - 94 | B- | 70 – 74 | D+ | 55 - 59 |
| A- | 85 - 89 | C+ | 67 – 69 | D | 50 - 54 |
| B+ | 80 - 84 | С | 63 – 66 | F | < 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.

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

The final examination will be scheduled by the Registrar. It will last two hours and will be held in an assigned room. Examinations and quizzes may contain 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

The student accommodation policy can be found at: <u>ucalgary.ca/access/accommodations/policy</u>.

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities ucalgary.ca/policies/files/policies/student-accommodation-policy.

Students needing an Accommodation based on a Protected Ground other than disability should communicate this need, preferably in writing, to the course instructor.

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.

Important Dates

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

Student Organizations:

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

Economics Department Representative

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

Society of Undergraduates in Economics:

https://www.ucalgarysue.com/.

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students to succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career events such as Industry Night and information sessions, mentorship programs, and social events for members. They invite you to join by contacting SUE at societyofundergradsineconomics@gmail.com.

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

Evacuation Assembly Point:

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The assembly point for this classroom is the Professional Faculties Food Court.

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.**

Freedom of Information and Protection of Privacy (FOIP) Act:

Personal information is collected in accordance with FOIP. For more information, see http://www.ucalgary.ca/legalservices/foip/foip-hia.

Internet and Electronic Communication Device information:

The use of cell phones for any purpose in class is prohibited. Computers and tablets may be used for note-taking only.