

# Department of Economics Faculty of Arts

# Economics 323(L01) (Natural Gas Markets)

Instructor: Dr. Afshin Honarvar Lecture Location: ICT 114 (subject to change)

Phone: 220-6550 Lecture Days/Time: T 18:00-20:45

Email: honarvar@ucalgary.ca

Office: SS 447

Office Hours: T 17:00 – 18:00 (by appointment) Winter 2014

# Textbook(s):

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

Kolb, Robert W., (2014), The Natural Gas Revolution at the Pivot of the World's Energy Future, First Edition, Pearson Publishing . [Recommended]

## Book(s) on Reserve:

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

Kolb, Robert W., (2014), The Natural Gas Revolution at the Pivot of the World's Energy Future, First Edition, Pearson Publishing.

Alberta Energy Regulator, ST98 -2014 Alberta's Energy Reserves 2013 and Supply/Demand Outlook 2014-2023.

**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> 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 main objective of this course is to provide the student with an understanding of the economics of natural gas markets. The course will cover the chain of activities that bring natural gas from an undiscovered resource to a commodity available for sale, providing both historical context and economic analysis of each activity. The incentives and economic decisions behind gas finding and production, pipeline transportation and storage, and distribution and consumption will be explored. Students will also gain an understanding of regulations that have influenced the development of the natural gas market.

#### Websites:

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

Alberta Energy Regulator (AER) – <a href="https://www.aer.ca">www.aer.ca</a>
Alberta Department of Energy (ADOE) – <a href="https://www.bp.com">www.energy.gov.ab.ca</a>
British Petroleum (BP) - <a href="https://www.bp.com">http://www.bp.com</a>
Canadian Association of Petroleum Producers (CAPP) – <a href="https://www.capp.ca">www.capp.ca</a>
International Energy Agency (IEA) – <a href="https://www.neb.gc.ca">www.iea.org</a>
National Energy Board (NEB) – <a href="https://www.neb.gc.ca">www.neb.gc.ca</a>
Organization of Petroleum Exporting Countries (OPEC) – <a href="https://www.opec.org">www.opec.org</a>
US Department of Energy/Energy Information Administration (DOE/EIA) – <a href="https://www.eia.doe.gov">www.eia.doe.gov</a>

# **Course Structure and Topics:**

The Course is organized around readings and discussions in the following areas. The course structure and topics may vary at the instructor's discretion.

- 1. North American Natural Gas Supply Resources and Markets
- 2. Understanding the physical nature of Natural Gas and Natural Gas Liquids
- 3. Energy Conversions
- The nature of supply and demand in the market for Natural Gas for Natural Gas Liquids
- 5. Economic theory and markets
- 6. Price setting and market trading
- 7. Externalities and the Environment
- 8. Transportation and Pipeline Industry
- 9. Forecasts in the light of shale gas revolution in the US
- 10. Regulations and their impacts

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

Mid-term1	1.5 hrs 25%	(Tuesday February 10, 2015)
Mid-term2	1.5 hrs 25%	(Tuesday March 17, 2015)
Final Exam	2 hrs 50%	(Will be announced by the registrar's office)

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+	96 – 100	В	75 – 78	C-	60 – 62
Α	89 – 95	B-	70 – 74	D+	55 – 59
A-	83 – 88	C+	67 – 69	D	50 – 54
B+	79 – 82	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.

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.
- Make-up midterm examinations will not be given under any circumstances. With appropriate documentation, the weight of the midterm will be moved to the final exam.
   Deferred examinations will not be given except in cases of extreme personal emergencies.
   Also, examinations will not be given before the indicated dates.
- Students' exams and assignments will be returned during regular class time.
- 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.
- Instructor may discern to deviate from the topics stated in the outline.

Students' Union Vice-President Academic:

Hana Kadri

Phone: 403-220-3911

E-mail <a href="mailto:suvpaca@ucalgary.ca">suvpaca@ucalgary.ca</a>

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.
- For program planning and advice, contact the Student Success Centre (formerly the Undergraduate programs Office) at 403-220-5881 or visit them on the 3<sup>rd</sup> Floor of the Taylor Family Digital Library.
- 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://ucalgary.ca/ssc/writing-support/online-writing-resources">http://ucalgary.ca/ssc/writing-support/online-writing-resources</a>

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

AH/mi 2014-11-03