Department of Economics
Course Outline

Term: Fall 2003

Course: Economics 527
[World Oil Economics]

Section: 01

Time: TR 15:30 ? 16:45
Place: SA 121
(subject to change)

Instructor: Dr. A. J. MacFadyen

Office: SS 540
Telephone: 220-4094

Office Hours: T: 14:00 ? 15:15; 17:00 ? 18:00
R: 14:00-15:15
E-Mail: macfadye@ucalgary.ca

TEXTBOOK(S):

Folder of readings available for purchase from Economics Department Office

BOOK(S) ON RESERVE:


OTHER REFERENCE MATERIALS:

The US Department of Energy, Energy Information Administration (EIA) is an excellent source of current information on world oil markets.
Students should be aware of a number of journals which include up-to-date material on the petroleum industry. Examples are:

1. **For Canada:** *Oilweek, Daily Oil Bulletin.*

2. **For U.S.A:** *Oil and Gas Journal, Energy Users Bulletin.*

3. **International Industry:** *Petroleum Economist, Petroleum Intelligence Weekly, Middle East Economic Survey, and Middle East Economic Digest.*

There are many articles in economic journals. Of particular interest to this class may be those in *Annual Review of Energy, Canadian Public Policy, Journal of Energy Development, The Energy Journal, Energy Economics,* and *Energy Policy.* For reference to other recent articles on the economics of the oil industry see the relevant sections (Q4) in the *Journal of Economic Literature,* and draw on ECON-LIT as a journal search engine.

Governments also publish interesting material on energy industries. In Alberta, material from the Energy and Utilities Board is of particular interest. For the Canadian federal government, see the National Energy Board, the Science Council of Canada, the Economic Council of Canada, and Department of Energy and Resources. For the US see Federal Energy Administration, Federal Regulatory Commission, and Department of Energy; also hearings before various Congressional Committees, including the House Ways and Means Committee, the Senate Committee on Commerce, the Senate Committee on Foreign Relations and the Joint Economic Committee. The OECD also has a number of interesting recent publications on energy, including publications of the International Energy Agency (IEA).

So does OPEC, including the *OPEC Review* and *OPEC Bulletin,* as well as periodic statistical reviews and profiles of member countries.

The Canadian Energy Research Institute (CERI) has published a monthly *World Oil Market Analysis,* which provides up-to-date information. Useful data on individual countries can be found in *The International Petroleum Encyclopaedia.*

Finally, the Reference section of the library has a copy of J. Evans, *OPEC, Its Member States and the World Energy Market* (1986), Burnt Hills, Essex: Longmans. This includes a brief review of world energy markets and their histories, information on individual OPEC nations, and a detailed history of OPEC and its influence on world oil markets from its founding in 1960 to the mid 1980's.

**COURSE OBJECTIVES:**

The course will focus on the international crude oil market with particular emphasis on OPEC and the determinants of its behaviour.

**COURSE OUTLINE:**

1. *A review of the simple analytics of oil price determination and the history of international oil prices;*

2. *Familiarity with major sources of data on the international petroleum industry;*

3. *Knowledge of major factors affecting the "supply side" of crude oil, and the relationship between supply price and market price in competitive and non-competitive markets;*

4. *Knowledge of the major factors which may have influenced the price of oil in international oil markets since 1973, and the strengths and weaknesses of various attempts to depict this in a simple model; and*

5. *Development of the ability to see the economic significance of current events and policy statements about international prices.*

The course draws heavily on journal articles, on the supposition that students at this stage of studies should be able to gain useful information from current academic journals in economics. Students will not be held responsible for the more sophisticated mathematical and statistical material in some of the articles.

(Readings with asterisks (*), are required)

1. **Introduction and an Overview of International Crude Oil Markets**

1. **Background**
*Familiarize yourself with some of the current periodicals and other publications in the library which provide recent data and discussions of events in the international oil industry. Check the latest issue of *The International Petroleum Encyclopaedia* and the December 2001 or 2002 Worldwide Report issue of *The Oil and Gas Journal*. In addition, look at a recent issue of each of: *OPEC Bulletin*, and *Middle East Economic Survey*.

On the EIA website, look at the "Country Analysis Briefs" for OPEC and several major countries in the world oil market; also check the Non-OPEC Fact Sheet, the OPEC Revenues Fact Sheet, and a recent issue of This Week In Petroleum.

2. An Historical Overview, and Alternative Conceptual Frameworks


*Handouts on "Spot and Sticky-Price Crude Oil Markets" and "Cheating and the Kinked Demand Curve."


II. Models of OPEC Behaviour Since 1970

1. Alternative Views (models)


Articles by Moran, Lichtblau and Pindyck, in J. M. Griffin and D. J. Teece, *OPEC Behaviour and World Oil Prices*.

P. K. Verleger, Chapters 1, 2 and 3 in *Oil Markets in Turmoil*.


2. Empirical Tests of Models


III. Oil Markets Since 1990

1. Recent Events and Possible Futures


2. Institutions


If time permits, one or more of the following three topics may be covered. None of these papers are in the package you purchased.
IV. Taxation and the Oil Industry


A. Kemp, Petroleum and Rent Collection Around the World.

V. Supply Disruptions and Security of Supply


VI. The Role of the Crude Oil Industry in the Economy


GRADE DETERMINATION AND FINAL EXAMINATION DETAILS:

The grade will be based upon one paper and two exams as follows:

<table>
<thead>
<tr>
<th>Exam Type</th>
<th>Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-Term (probably Thursday October 23)</td>
<td>25%</td>
</tr>
<tr>
<td>Paper</td>
<td>35%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>40%</td>
</tr>
</tbody>
</table>

The final exam will be scheduled by the Registrar and held in the classroom. It will be of two hours duration.

The final course grade will be obtained by weighting the numerical values (rather than letter grades) on the various exams and translating the numerical result back into a final letter grade for the course. The numerical-letter grade cut-off values will be as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Numerical Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>100-92</td>
</tr>
<tr>
<td>A</td>
<td>91-84</td>
</tr>
<tr>
<td>A-</td>
<td>83-80</td>
</tr>
<tr>
<td>B+</td>
<td>79-76</td>
</tr>
<tr>
<td>B</td>
<td>75-69</td>
</tr>
<tr>
<td>B-</td>
<td>68-65</td>
</tr>
<tr>
<td>C+</td>
<td>64-61</td>
</tr>
<tr>
<td>C</td>
<td>60-54</td>
</tr>
<tr>
<td>D+</td>
<td>49-46</td>
</tr>
<tr>
<td>D</td>
<td>45-40</td>
</tr>
<tr>
<td>F</td>
<td>39 and under</td>
</tr>
</tbody>
</table>
If, for some reason, the distribution of grades determined using the aforementioned conversion chart appears to be abnormal, the instructor reserves the right to change the grade conversion chart if the instructor, *at the instructor’s discretion*, feels it is necessary to more fairly represent student achievement.

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 generally apply:

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.

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 two weeks of the work being returned to the class.

- Students’ papers will be returned during regular class time or at the time of the final exam. Papers may also be picked up by students during regular Office Hours.

- Make-up examinations and deferred examinations will not be given except in cases of extreme personal emergencies. Also examinations will not be given before the indicated examination dates.

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AJM:pd
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