Petroleum Engineering 664
Deterministic Petroleum Economics and Reserves
Syllabus and Administrative Procedures
Fall 2009

Instructors: George Voneiff, Peter Bastian
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Office: Room 407-L Richardson Building
Office Hours: By appointment, Fridays before class is best

Description: Deterministic evaluation techniques for oil & gas properties focusing on economic analyses, reserves classifications and decision making.

Objectives:
• Compute net present value, rate of return and payout for a cash flow stream.
• Construct and run a decline curve history matching and forecasting model.
• Construct and run a before-tax economic model utilizing a production forecast
• Apply depreciation schedules to an after-tax economic evaluation.
• Use economic outputs to make a business decision.
• Assign reserves to a deterministic reserves classification system.
• Present the recommendations, conclusions and results of an economic evaluation in a well-organized report.

Text: Cronquist, C., Estimation and Classification of Reserves of Crude Oil, Natural Gas, and Condensate, SPE (2001) (available from SPE for a member price of about $62.85)

Class Schedule: Friday 1:50 – 5:25 PM, 302 Richardson
Prerequisite: While there is no prerequisite, it is assumed you have a basic understanding of reservoir engineering principles and are proficient with MS Excel. If you are lacking either of these traits, then you may need to supplement this class with reservoir engineering study and/or spreadsheet training.
Basis for grade:

Homework and class discussion………………………………………… 20%
Mid Project ……………………………………………………………… 30%
Final Project ……………………………………………………………… 50%

Notes:
1. Homework is due at the start of class and should be turned in electronically. Word documents, Excel spreadsheets and .PDF files are acceptable. Late homework will receive a grade of zero.
2. Mid-Term and Final Projects will be turned in electronically. In-Class students will also turn in a printed version of those projects.

3. Class discussions will include reading assignments and homework. Please come to class prepared to discuss the assigned topics for the day.

4. Assignments and other course materials will be posted on Vista. You will need to establish a Vista account for this class and monitor the web site regularly.

**Vista Account**

Because course information will be posted on Vista regularly, I ask that you please monitor at least once a day. To set up your Vista account for this course, please do the following:

- Go to [elearning.tamu.edu](http://elearning.tamu.edu).
- Find the link to Vista Logon. Click the link.
- Use your NetID (Neo ID and password) to logon.
- Click on the course name.

This should be all you need. If you think you can't get there from here, please contact Mary Lu Epps or Ted Jones in the 407 office suite for help.

**Academic Integrity Syllabus Statement**

"An Aggie does not lie, cheat, or steal or tolerate those who do."

All syllabi shall contain a section that states the Aggie Honor Code and refers the student to the Honor Council Rules and Procedures on the web [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor)

It is further recommended that instructors print the following on assignments and examinations:

"On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work."

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Signature of student

**Americans with Disabilities Act (ADA) Policy Statement**
The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the UCC by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information.

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statue that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe that you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building, or call 845-1637.