Petroleum Engineering 667
Probabilistic Petroleum Economics and Reserves
Syllabus and Administrative Procedures
Spring 2014

Instructors: George Voneiff

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Office: 2425 Earl Rudder Freeway, College Station, Texas
Office Hours: By appointment, Fridays before class is best.

Description: Probabilistic evaluation techniques for oil & gas properties, including reservoir descriptions, economic analyses, reserves classifications and decision making.

Objectives:
- Compute and graph mean, median, standard deviation, percentile and distribution type for a population and use those parameters in a probabilistic analysis
- Construct and solve expected value trees for oil & gas applications
- Load and run the @Risk Excel add-in module
- Construct and run Monte Carlo simulations for oil & gas applications
- Use probabilistic outputs to make a business decision
- Assign reserves to a probabilistic reserves classification system
- Present the recommendations, conclusions and results of a probabilistic evaluation in a well-organized report

ISBN: 978-1-59370-209-0 (v. 2)

Prerequisite: PETE 664 (no exceptions), you should be proficient with MS Excel and you will need to load and use Palisade’s @Risk Excel add-in. You will be responsible for purchasing your own copy, student versions are available. You will also need two spreadsheets you built in PETE 664, a decline curve production forecasting spreadsheet and a 40-yr monthly before-tax petroleum economics spreadsheet.

Class Schedule: Fridays, 2-5 PM, Richardson Bldg.

Basis for grade:

- Homework and class discussion ........................................... 20%
- Mid-Term 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.

**eCampus Account**

Because course information will be posted on eCampus 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 [http://ecampus.tamu.edu](http://ecampus.tamu.edu).
- If you have problems, click on the link “Check Browser Support” on the entry page to eCampus.
- Find the link to **Log In**. 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 ([marylu.epps@pe.tamu.edu](mailto:marylu.epps@pe.tamu.edu)) or Ted Seidel ([ted.seidel@pe.tamu.edu](mailto:ted.seidel@pe.tamu.edu)) in the 407 office suite for help.

**Academic Integrity Syllabus Statement**

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

If I catch you cheating, usually by turning in work that is not your own and represented as your work, you will receive a zero on that assignment, and probably fail the class, and I will file an Aggie Honor Code Violation.

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.
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."

________________________________
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 statute 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.