

PNGE 480

Petroleum Engineering Design

Course Definition:

Comprehensive problems in design involving systems in oil and gas production, field processing, transportation, and storage.

Policy:

- Class Participation & Attendance: 5%
- Preliminary project content and presentations: 20%
- Final Project Content: 35%
- Final Project Report: 20%
- Final Project Presentation: 20%

- Homework and projects are due at the time specified.
- Late homework or projects: 5% penalty for every class meeting.
- Attendance: **Required**.

Text Book:

None Required. All material will be provided throughout the semester.

References:

All the textbooks used in Petroleum Engineering courses that you have taken so far.

ABET Requirement:

In order to fulfill the ABET requirements, you will be graded in this class based on a set of criteria. [CLICK HERE](#) to see a detail on this course's grading policy.

[University Social Justice Statement.](#)

[University Disability Policies](#)

Syllabus:

Part 1: Introduction (Week - 1)

Part 2: Introduction to Reservoir Modeling (Week - 2 through 5)

Part 3: Data-Driven Reservoir Modeling (Week -5 through 9)

- Philosophy and Theory
- Overview of data driven technology
- Data
- Model Training, Calibration and Validation
- Model Analysis

Part 4: Software [Tutorial](#) (Week -10 through 11)

Part 5: Final Project Review (Week -12 through 15)

Example of past Semester Project:

Spring 2008



Project

Please note that the semester project for this semester will be either Email to you or will be available on your MIX account.

Here are links to a few papers that you may use as reference in your project.

[International Journal of Oil, Gas and Coal Technology](#)

[SPE RE&E Journal](#)

[Journal of Natural Gas Science & Engineering](#)

[SPE P&O Journal](#)

[SPE 166111](#)

[SPE 161184](#)

[SPE 104550](#)

[SPE 98010](#)

Group Evaluation:

Since this course is fully project based and since all the requirements of the course will be completed in a group setting, it is most important that each group member provide input and participate actively in the [completion](#) of each part of the project.

After each part of the project is [completed](#) every member of the group will have a chance to evaluate other members of the group and their contribution to the project. This process will take place confidentially. [CLICK HERE](#) to see a sample evaluation form. Keep in mind that this evaluation will have an impact on the final grade you will receive in this course.

Sample Report: This is a sample report. Please look at it, hopefully it gives you an idea how to present your results in the form of a written technical report.

