

**PET 472**  
**Reservoir Management, 2 cr, 2 cl hrs**  
**MW 3:30 – 4:30 pm**  
**Spring 2012**

Catalog Description:

Economic analysis of petroleum-producing properties; evaluation of reservoir management decisions for oil and gas development; establish the effect of risk and uncertainty on economic evaluation.

Prerequisites: Pet 471 – Reservoir Description

Course Objectives:

1. To evaluate projects for economic feasibility.

Within this objective, students will be able to determine investment costs, expenses to operate, and production scheduling for revenues. Also, understand economic factors for assessing the project.

2. To include uncertainty into the analysis and risk.

Students will be able to evaluate the effect of variations in parameters and make decisions based on these outcomes.

Course Content:

Actions from a previous (PETR 471, Fall 2011) feasibility report will be investigated, with results leading to an understanding of project economics and reservoir management. Key issues will be decisions and economics of a variety of proposed projects (workover, recompletion, and/or new well). This concept will be expanded to reservoir management options for the entire reservoir; e.g., gas injection vs. depletion. Other ancillary items will be the impact of acceleration, participation decisions, and acquisition/disposition possibilities.

Course Material:

No restrictions apply for reference material or personnel in providing data and information.

Assignments:

- An Authority For Expenditure (AFE) is required for each proposed project.
- An executive summary describing an overall strategy of development for the field or play.

## **Critical Dates**

### **NMT Student Research Symposium**

- Feb 10<sup>th</sup> - application deadline for NMT's research/design symposium
- Mar 23<sup>rd</sup> - Posters due
- Apr 2<sup>nd</sup> - Abstracts due
- Apr 12<sup>th</sup> - Presentations due
- Apr 13<sup>th</sup> - Symposium

### **Project Reviews**

- Jan 25<sup>th</sup>
- Feb 15<sup>th</sup>
- Mar 7<sup>th</sup>
- April 4<sup>th</sup>

**April 27<sup>th</sup> - Senior Design Presentations**