

Texas A&M University — Department of Petroleum Engineering  
Proposed Course Syllabus

Number and Name of Course: PETE 689 Special Topics in Horizontal Well Completion and Stimulation  
Hours:                    Theory   3      Practice   0      Total   3      Credits   3  

Text Materials:

- *Multilateral Wells*, A. Daniel Hill, D. Zhu and M. J. Economides, SPE, 2009
- Supplemental papers from the literature

Course Outline: (by major topics, and approximate time for each topic)

Topic	Description	Time
1	<b>Introduction: Application of Horizontal Wells</b>	1.5 hrs
2	<b>Overview of Reservoir, Production and Stimulation of Horizontal Wells</b>	4.5 hrs
3	<b>Stress Field Effect on Horizontal Drilling and Completion</b>	4.5 hrs
4	<b>Horizontal Well Completion</b> Formation Damage during Drilling and Completion Completion Type and hardware Completion Performances Optimization of Completion Design	9 hrs
5	<b>Hydraulic Fracturing of Horizontal Wells</b> Review of Hydraulic Fracturing Fracturing Horizontal Wells Fracture Design Fractured Well Performance Gel Damage in Fractured Wells	9 hrs
6	<b>Acidizing of Horizontal Wells</b> Overview of Acid Stimulation Horizontal Well Acidizing Operation Design of Acid Stimulation Well Performance of Acid Stimulated Wells	9 hrs
7	Design Project	4.5
		Subtotal: 42 hrs
	Tests	3hrs
		Total: <u>45 hrs</u>

Course grading:

Midterm Exam.....	(50%)
Class Projects/Homework.....	(50%)
Total.....	(100%)

Course Instructor/Supervisor:

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Miscellaneous:

ABET Classification: Science: \_\_\_\_\_ Design: \_\_\_\_\_ Math: \_\_\_\_\_ Other: \_\_\_\_\_  
Laboratory Requirements: Yes: \_\_\_\_\_ No:   x    
Equipment Required: None

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ADA Policy Statement: (Texas A&M University Policy Statement)

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.

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Coursework Copyright Statement: (Texas A&M University Policy Statement)

Suggested for Inclusion in Your First Day Handout or Syllabus

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