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

Number and Name of Course: PETE 689 Special Topics in Completion and Workover
Hours: Theory 3 Practice 0 Total 3 Credits 3
Prerequisites: graduate classification
Curricula Requiring this course: [x] None, this course will be an elective.

1. _____ 2. _____ 3. _____

Description of Course: (Concise Statement of purpose of design)

This course provides an overview of completions and workover equipment and methods in the oil and gas industry. It is designed to complement the courses on drilling and production engineering which are already offered by the department. The students will learn about the design options to meet deliverability, safety and integrity requirements in completions and workovers operations. The main components of a well are described and analysed by their function and design criteria. The workover systems and procedures are presented and discussed. Case studies will be provided and a class project will help the students understand the hands-on aspects of completions and workovers.

Text Materials:

- D. Perrin, Well Completion and Servicing, Edition Technip, 1999
- References:
- Selected papers

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

Topic	Description	Time
1.	• Well completion: types of wells, completion functions, types of completion	3
2.	• Mechanical aspects of well testing	1
3.	• Cased Hole Testing equipment and application	1
4.	• Perforation methods and perforating equipment	1
5.	• Packers: function, application, proper selection • Includes water/gas shut off, horizon separation, etc	3
6.	• Completion equipment (SSD, SSSV, mandrels, locks, etc.)	3
7.	• Data acquisition in wells • Fibre optics, permanent gauges, memory gauges, SCADA systems	2
8.	• Intelligent completion equipment	1
9.	• Tubing string design (dimension, materials, connections,..) based on pressure, temp. operating conditions, media, safety requirements	6
10.	• HPHT and horizontal well completions	1
11.	• Workover equipment: WireLine, Snubbing Unit, Coil Tubing	5
12.	• Completion and Workover design and execution	3
13.	• Special Topic: industry people are invited to give presentation on specific topics	4
14.	• Class Project	8
15.	Subtotal:	42
16.	In-class Exams:	3 hrs
17.	Total:	45 hrs

Course grading:

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

Course Instructor/Supervisor:

Dr. Catalin Teodoriu
Tel. (979) 845-6164
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Some classes will be delivered in collaboration with:

Dr. Gioia Falcone
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Miscellaneous:

ABET Classification: Science: X Design: _____ Math: _____ Other: X
Laboratory Requirements: Yes: _____ No: x
Equipment Required: None

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.

> 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.

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

Suggested for Inclusion in Your First Day Handout or Syllabus

The handouts used in this course are copyrighted. By "handouts," this means all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copy-righted, you do not have the right to copy them, unless you are expressly granted permission.

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

If you have any questions about plagiarism and/or copying, please consult the latest issue of the *Texas A&M University Student Rules*, under the section "Scholastic Dishonesty."