

**PTRT 2332**  
**Artificial Lift**

**Western Texas College**

- I. **COURSE DESCRIPTION**  
Practical aspects of artificial lift in production systems. Students will analyze the characteristics of particular reservoirs; select the type of artificial lift required; and design artificial lift systems
- II. **INTRODUCTION AND RATIONALE FOR THE COURSE**  
The student will learn an overview of artificial lift programs from design considerations in planning artificial lift programs to a description of each method. Students will be taught the basic concepts and mechanics of gas lift, plunger lift, sucker rod pumping, hydraulic pumping, electric submersible pumping, and beam pumping; organized into three major areas; surface equipment, subsurface equipment, and pumping installation and design.
- III. **COURSE POLICIES**
  - A. **ATTENDANCE**  
Students are expected to attend classes regularly, and to be on time for every class period. Students can be dropped from a class due to excessive absences. Excessive tardiness may be considered absences. Students are responsible for subjects, assignments, and projects covered during their absences. Consult the *Student Handbook* for more details.
  - B. **ACADEMIC HONESTY**  
Scholastic dishonesty is treated with the utmost seriousness by the instructor and the College. Academic dishonesty includes, but it is not limited to the willful attempt to misrepresent one's work, cheat, plagiarize, or impede other students' scholastic progress. Consult the *Student Handbook* for more details.
  - C. **STUDENTS WITH DISABILITIES**  
Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Support Services Office at his / her respective college at the beginning of each semester. Faculties are authorized to provide only the accommodations requested by the Disability Support Services Office.
  - D. **CELL PHONES**  
All cell phones must be muted, set to vibrate, or turned off during class. Cell phone activity during class is deemed disruptive to the academic process and will not be tolerated. If you need to make or receive an emergency call, please leave the classroom.
  - E. **CALCULATORS**  
If the course allows the use of a calculator during class, lab projects, and exams, the student is responsible to bring his/her calculator. Cell phones are not calculators, and are not allowed to be used for that purpose during class, tests, or exams.

F. BOOKS, TOOLS AND SUPPLIES

Students are required to purchase and bring to class the required textbooks, tools, notebooks, supplies, and writing instruments as required by the instructor. Book SEE BELOW.

G. DRESS CODE

Dress code must be appropriate for the class, which may include attire appropriate for well site or facility visits. This may include but not be limited too, steel toe boots, hard hat, safety glasses, and OSHA approved garments. Students must dress in a way that clothing and accessories do not compromise their safety, and the safety of others. Proper foot wear is required in all laboratories. Absolutely no sandals or any other footwear that exposes the feet will be allowed.

H. CLASSROOM & LABORATORY CONDUCT

Proper behavior is expected in all classes and laboratories. Foul language and horseplay are not allowed. Making or receiving cell phone calls during class are not allowed. Sleeping in class is not allowed.

I. COURSE WITHDRAWAL

It is the responsibility of the student to officially withdraw from a course before the official withdrawal deadline. A student who does not withdraw from a course by the deadline will receive an "F" as the final grade. Also note that under Section 51.907 of the Texas Education Code, an institution of higher education may not allow a student to drop more than six courses.

IV. METHOD OF INSTRUCTION

The course consists of lectures, guest speakers (from industry), and field lab demonstrations designed to enhance the learning experience for the student. Homework assignments are primarily focused on learning the key terms and slang common to the petroleum industry.

V. GRADING CRITERIA

Contribution	% of Semester Grade
Homework	40
Lab	20
Major Test Average	20
Attendance	10
Quiz	10
Semester Numerical Average	Semester Letter Grade
> 90	A
> 80 & < 89.9	B
> 70 & < 79.9	C
> 60 & < 69.9	D

< 59.9	F
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VI.

VII. SUBJECT TO CHANGE

The course syllabus above and/or the Course Outline below may be changed as the term progresses at the discretion of the instructor. (Discretionary content may be changed by individual instructors, if needed, during the course of the term. However, content prescribed to be included in all syllabi may not be changed. This notice to students gives flexibility to the instructor.)

VIII. INSTRUCTIONAL MATERIALS

- A. Artificial Lift by PETEX ISBN: 0-88698-086-0
- B. Optional Material
  - 1. Improved Recovery by PETEX ISBN 0-88698-044-5
  - 2. Beam Pumping by PETEX ISBN 0-88698-123-9

Last Modified: August 29, 2016