



Bob L. Herd Department of Petroleum Engineering

Texas Tech University | Edward E. Whitacre Jr. College of Engineering

About the Bob L. Herd Department of Petroleum Engineering

The Bob L. Herd Department of Petroleum Engineering is uniquely located in the Permian Basin, where approximately 22 percent of the nation's petroleum recourses and 68 percent of Texas' petroleum recourses lie within a 175-mile radius. The department is staffed with industry-experienced faculty who have an average of more than 15 years of experience per faculty member.

Points of Pride

- Oilfield Technology Center
- Roughneck Boot Camp
- State of the art teaching facility. Spacious classrooms with the most up to date technology.
- Student-to-faculty ratio (11:1)
- Number 8 graduate petroleum engineering program in the nation by U.S. News and World Report

Academic Success

- No more than 98 students are accepted into our upper division program every year. This allows our department to maintain class sizes in each section, which provides us with a top-notch faculty-to-student ratio.
- Our students are taken on several field trips throughout their time in upper division that provides them with hands-on experience unique to their learning experience.
- Several tutoring options are available to engineering students through the Engineering Opportunity Center, tutoring sessions through our department, their student organizations, or the Learning Center on campus

Preparing you for a Global Future

- Roughneck Boot Camp is an orientation-based training for foundational engineering students, every semester (Fall and Spring semesters). This camp provides students with hands-on experience industry equipment, an opportunity to network with top industry experts, and tips for obtaining crucial internships.
- Senior Design Course introduces the student to typical oil and gas project development. Actual fields are developed from the exploration phase to the fully developed stage. Detailed economic analysis are implemented, including statistical analysis of reserve volumes.
- Undergraduate Labs
- The Oilfield Technology Center (OTC) offers students the opportunity to do hands-on work with equipment used for artificial lift, oil treating, gas processing, drilling and completions. OTC has three test wells, including the deepest test well on university property in the United States - Red Raider No. 1. An on-site shop and classroom building combined with the full scale equipment and wells provide a unique facility for teaching, research and workforce development.
- Visualization Lab-This lab provides students with a first look at scaled-down typical oilfield equipment and its function before working with full scale equipment at the Oilfield Technology Center or on Intern assignments.
- Mud Lab: Students gain knowledge about the chemistry, rheology, and properties of drilling mud. They conduct experiments measuring drilling mud properties and evaluating the performance of the drilling mud.
- Core Lab: Students practice most the fundamental experiments related to cores, such as measurements of porosity, permeability, interfacial tension, contact angles, resistivity, etc. Students gain knowledge about rock-fluid interactions.



Advanced Degrees Offered

- Accelerate B.S./M.S.- Students complete both a Bachelor's and a Master's in 5 years. B.S. program is accredited by ABET
- Master's of Science in Petroleum Engineering (Thesis or Non-Thesis)
- Doctorate in Petroleum Engineering

Student Organizations

- Society of Petroleum Engineers (SPE)
- American Rock Mechanics Association (ARMA)
- International Association of Drilling Contractors (IADC)
- American Association of Drilling Engineers (AADE)

Careers

As a petroleum engineer, you have several job opportunities in the field, office, Artificial Intelligence, Machine Learning, etc. that will take you around the world.

Job Placement and Info:

- 70% of graduating students had full time job offers prior to graduation on average over the last three years
- Average salary: \$104,000/year



BOB L. HERD

DEPARTMENT OF
PETROLEUM ENGINEERING

TEXAS TECH

Whitacre College of Engineering