Global economies would collapse without it. Life as we know it would cease to exist without oil and gas, and petroleum engineers are the only ones who know how to extract it safely and efficiently from a subterranean formation. They solve the most critical and pressing global energy challenges facing humanity, including how to meet increasing global demand for energy while ensuring the safety and cleanliness of our environment.

The vision for the Petroleum Engineering Department of UH Cullen College of Engineering is to be the center of world-class petroleum engineering education and research in the city of Houston, the center of the world’s petroleum industry. Petroleum Engineering graduate students are taught by leading educators with strong research and industrial backgrounds. Students are prepared to address the challenges of the world’s energy needs responsibly, to exceed the evolving expectations of employers in the petroleum and energy industries, to sustain industry leading skills and to be leaders in industry, academia, and government.
PROGRAM BENEFITS

Career opportunities for petroleum engineers are excellent, especially in the city of Houston, the Energy Capital of the World. Employment opportunities are widely available with the Domestic companies, international energy companies, and service providers, or the many intermediate and independent oil and gas producers, drilling companies, special equipment companies and industry support companies. Employment can be domestic or international, onshore, or offshore, and can involve the most sophisticated intelligent systems and technologies. Early on, career opportunities may involve specific technical and operational assignments, and later, engineering and business leadership positions. Many petroleum engineers with appropriate experience and knowledge have started their own oil and gas companies. The program also focuses on sustainable, cleaner alternatives to meet the ever-evolving demands of the industry and global responsibilities.

FACULTY EXPERTISE

Our award-winning faculty are constantly performing cutting-edge research, and are always seeking hard-working graduate researchers to join them in their labs. Research focus areas include unconventional energy resources, reservoir engineering, hydraulic Fracturing, waterless Fracturing, and rock properties and geomechanics.

To view a full list of our PE faculty by research area, please visit: www.petro.uh.edu/research/faculty-expertise

FACILITIES & LABORATORIES

Located in UH’s Technology Bridge campus and funded through generous donations from Conoco-Philips and with support from UH, students in the UH Petroleum Engineering Department can gain real world skills in exceptional training. Noteworthy labs include:

- Rock Mechanics, Petrophysics and Sample Characterization Laboratory
- Well Drilling and Completion Flow Loop Laboratory
- Reservoir Engineering and Energy Industry Partnerships Laboratories
- Modeling and Simulation of Porous Media Laboratory
- Pulse Plasma Monitoring and Simulation Laboratory

Learn more at: www.petro.uh.edu/research/facilities-and-laboratories

CENTERS & CONSORTIA

As the field of oil and gas exploration and production continues to advance and new technologies emerge, the Department is creating new centers, institutes, consortia, and alliances that are cross disciplinary, meaningful, and innovative. The Department is home to the following research collaborations:

- Testing of Low Permeability Formations Research Consortium (TLPFRC)
- Rock Properties Measurement, Microscopy, and Modeling (RPM3)
- Numerical Pore-Scale Modeling Consortium (NPSMC)

GRADUATE DEGREES OFFERED BY THE PETROLEUM ENGINEERING DEPARTMENT

The UH Cullen College of Engineering offers M.S. non-thesis, M.S. thesis and Ph.D. degrees in petroleum engineering, as well as a graduate-level certificate program in “Unconventional Reservoirs.” The department also offers a dual M.S. degree in petroleum engineering and subsea engineering.

Learn more at: www.petro.uh.edu/graduate/research_resources

FOR MORE INFORMATION

For more information on eligibility and admissions requirements, please visit petro.uh.edu/graduate