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 the earth. 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 UH Cullen College of Engineering petroleum engineering program is to be the center of world-class petroleum engineering education, research and service 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 major integrated 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.

RESEARCH ENTERPRISE

At the University of Houston Cullen College of Engineering, the Petroleum Engineering Department offers state-of-the-art research opportunities for students. The University of Houston is home to some of the world’s most advanced energy research and houses a 74-acre campus, called the Technology Bridge, dedicated to bringing industry and academia together to conduct energy research in clean engines and fuels, wind energy, superconductivity and petroleum engineering. All students are strongly encouraged to get hands-on research experience in one of the many faculty research groups, labs or centers on campus while they are pursuing their degrees.

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, reservoir engineering, and rock properties and geomechanics.

To view a full list of 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 are able to 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)

WHAT TYPES OF GRADUATE DEGREES DO YOU OFFER IN PETROLEUM ENGINEERING?

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 and subsea engineering.

FOR MORE INFORMATION

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