

# Petroleum and Natural Gas Engineering

John and Willie Leone Family Department of Energy and Mineral Engineering



Petroleum and Natural Gas Engineering applies to subsurface energy production and storage using environmentally conscious and effective methods. The engineers who graduate from this program develop solutions for problems of hydrocarbon production, geothermal energy, CO<sub>2</sub> geo-sequestration, hydrogen storage, wastewater disposal, and groundwater resources with a global reach of economic, geopolitical, and societal impacts. While constituting the highest number of graduates among the U.S. universities, our graduates secured the highest-paid engineering jobs with 100% placement in 2023 at over \$100K starting salaries.



**PennState**  
College of Earth  
and Mineral Sciences



## Overview

Established in 1931, our program is a melting pot for theory, application of case studies, and engineering project design. Students learn that a successful engineering design project requires a sound theoretical foundation, experimentation and engineering judgment. The program emphasizes the fundamentals of mathematics and earth and engineering sciences and integrates them with petroleum and natural gas engineering topics. Students complete projects using a combination of problem-formulation strategies, testing of alternative design methodologies, feasibility and case studies, economic evaluations and environmental considerations.

## You might be a good fit if ...

- ◆ You enjoy combining disciplines such as geology, physics and mathematics to solve complex problems of great importance to society.
- ◆ You want to use science and engineering principle to tackle the challenges of global energy demands.
- ◆ You enjoy working in the field,



performing sophisticated computer simulations in the office, or interpreting geologic and production data.

- ◆ You enjoy working with cutting edge and emerging technologies.
- ◆ You seek a profession that offers domestic and international opportunities.
- ◆ You want a career with opportunities to work in traditional, relaxed office settings or more exotic, frontier work environments.

## Internships and scholarships

The College of Earth and Mineral Sciences awards more than \$2.5 million annually, including more than \$350K for students enrolled in the EME department and nearly \$200K



**The program, along with student events and organizations, provides students with countless opportunities for growth individually and professionally. The professors and staff within the department create a beneficial and challenging environment for the students, which gives the knowledge and discipline required to become an industry professional.**

~ Tristin Findlay

for students studying Petroleum and Natural Gas Engineering.

## Professional Societies

- ◆ Association of Drilling Engineers
- ◆ Society of Petroleum Engineers

## Choose from options

- ◆ General
- ◆ Integrated B.S./M.S. Degree Program

## Why choose Penn State?

Our program is designed to equip the student with the fundamentals necessary to achieve lifelong professional growth. Graduates are prepared to enter both the private and public sectors or to pursue further education at the graduate level.

**\$100K** Starting salary for recent grads

**100%** Recent grad job placement

**5th** QS world ranking of U.S. universities