

# PETROLEUM AND NATURAL GAS ENGINEERING, MINOR

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Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

## Program Description

The minor in Petroleum and Natural Gas Engineering is for students interested in the drilling and production of oil and gas. It provides an opportunity for students to understand and appreciate the relationship between petroleum and natural gas demand, production, and their environmental impact. Students are exposed to the basic courses in petroleum and natural gas extraction, particularly as they relate to drilling, production, and characterization. Advising is available through the professor in charge.

## What is Petroleum and Natural Gas Engineering?

Petroleum and Natural Gas Engineering is a field related to the extraction of hydrocarbon resources (either crude oil or natural gas) from subsurface reservoirs. As such, petroleum and natural gas engineers predominantly work in the upstream sector of the oil and energy industries, which comprises exploration, field development, well drilling, production and injection well optimization, and wastewater disposal and CO<sub>2</sub> sequestration well planning. Once oil and gas are discovered, petroleum engineers determine optimum drilling and completion methods, monitor and manage production operations, and design reservoir development strategies. They have the responsibility of providing engineering solutions with global economic, environmental, geopolitical, and societal impacts. Petroleum and natural gas engineers work closely with geoscientists and other science and technology specialists. In addition to hydrocarbon extraction, they are also well-suited to solve complex problems in geothermal energy, geological carbon sequestration, wastewater disposal, and environmental remediation of soil, groundwater, and other geologic media.

## You Might Like This Program If...

- You enjoy combining disciplines such as geology, physics, and mathematics to solve complex problems of importance to society.
- You want to use science and engineering principles to tackle the challenges of global energy demands.
- You seek a profession that offers domestic and international networking opportunities.
- You enjoy working in the field, performing sophisticated computer simulations, or interpreting geologic and production data.