



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ENGINEERING

# Introduction to Petroleum Engineering

## CBE 5200

### Credit Hours:

3.00 - 3.00

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### Course Components:

Lecture

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### Course Description:

Introduction to petroleum engineering, including fundamental petroleum engineering concepts, quantities and unit systems, petroleum geology, exploration, drilling, reservoir engineering, fluids and rock properties, production, well testing, enhanced/Improved oil recovery.

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### Prerequisites and Co-requisites:

Prereq: Jr standing or above in Engineering, Earth Sciences or Business. Concur: EarthSc 5661.

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### Course Goals / Objectives:

- Know oil field vocabulary and demonstrate familiarity with methods and materials used in petroleum engineering.
- Identify and define the components of a petroleum system.
- Understand the determination and evaluation of fluid/rock properties, and the fluid/rock interaction.
- Describe how physical properties of hydrocarbon components are affected by molecular structure, size, pressure, and temperature.
- Recognize mechanisms and understand appropriate application situations and advantages of common assisted and enhanced recovery methods.
- Evaluate uncertainty in reserve estimates using different methods and economic appraisal. Incorporate social, political, cultural, and environmental factors into decision making.