Department of Petroleum and Natural Gas Engineering, M.S., M.S.P.N.G.E, Ph.D.

Degrees Offered

- Masters of Science, Midstream Petroleum Engineering (M.S.)
- Masters of Science, Petroleum and Natural Gas Engineering (M.S.P.N.G.E.)
- Masters of Science, Engineering (M.S.E.)
- Doctor of Philosophy, Petroleum and Natural Gas Engineering (Ph.D.)

Departmental Overview

The Petroleum and Natural Gas Engineering (PNGE) graduate programs are designed for students who have already completed a basic petroleum engineering curriculum. The objective of the PNGE graduate programs is to educate students who will be capable of performing at the highest levels of the petroleum and natural gas engineering profession. The programs provide students with the advanced technical knowledge and engineering skills needed by the oil and gas industry in the state, the nation, and the world. Moreover, the programs will make students competent to perform independent research and will prepare them to be the future providers of high quality education in petroleum and natural gas engineering. Graduates have the opportunity to enter all phases of the oil and natural gas industry, government agencies, and academia in meaningful and important jobs.

The goals and objectives of the fully online Midstream Petroleum Engineering program are to train graduate students to gain core competency for implementing practical solutions to real-world problems relative to designing, monitoring, and maintaining petroleum transportation, storage, and processing facilities. Students in the program will learn to perform detailed analysis of transportation, storage and processing facilities in order to optimize their performance. This online master's degree program will make it possible for engineering students and current engineers to obtain the degree while stationed anywhere in the United States and the world.

Areas of Research

- Development of the Unconventional Oil and Gas Resources
- Application of Artificial Intelligence and Data Analytics
- Hydraulic Fracturing
- Reservoir Characterization and Formation Evaluation
- CO_2 Sequestration and Enhanced Oil Recovery
- Reservoir Modeling and Simulation
- Drilling and Well Completion

FACULTY

CHAIR

- Samuel Ameri - M.S.Pet.E., P.E. (West Virginia University)
  Formation Evaluation

PROFESSORS

- Samuel Ameri - M.S.Pet.E., P.E. (West Virginia University)
  Formation Evaluation
- Kashy Aminian - Ph.D. (University of Michigan)
  Natural Gas Engineering, Unconventional Reservoirs
- Shahab Mohaghegh - Ph.D. (Pennsylvania State University)
  Intelligent Systems, Shale Analytics

ASSOCIATE PROFESSORS

- H. Ilkin Bilgesu - Ph.D., P.E. (Pennsylvania State University)
  Drilling and Production Engineering
- Ebrahim Fathi - Ph.D. (University of Oklahoma)
  Phase Behavior

ADJUNCT PROFESSORS

- Alan Brannon - Ph.D. (West Virginia University)
  Petroleum Engineering Fundamentals
- Josh Dalton - MSPNGE (West Virginia University)
  Drilling and Stimualtion
- Pramod Thakur - Ph.D. (Pennsylvania State University)
  Coalbed Methane Development

For specific information on the following programs, please see the links to the right:

- Midstream Petroleum Engineering, M.S.
- Petroleum and Natural Gas Engineering, M.S.P.N.G.E
- Petroleum and Natural Gas Engineering, Ph.D.