

PETROLEUM ENGINEERING

B.S., M.S., Ph.D. Degrees

The mission of the petroleum engineering program is to provide its students with quality education and training in the field of petroleum engineering through effective teaching, research and public service, with emphasis on Alaska petroleum resources.

Petroleum engineering offers a unique look at the challenging problems confronting the petroleum industry. This program requires an understanding of many disciplines including mathematics, physics, chemistry, geology and engineering science. Courses in petroleum engineering deal with drilling, formation evaluation, production, reservoir engineering, computer simulation and enhanced oil recovery. The curriculum prepares graduates to meet the demands of modern technology while emphasizing, whenever possible, the special problems encountered in Alaska. Located in one of the largest oil-producing states in the nation, the UAF petroleum engineering department offers one of the most modern and challenging degree programs available.

Learn more about the petroleum engineering program's mission, goals and educational objectives (<https://www.uaf.edu/cem/programs/petroleum-engineering/>).

College of Engineering and Mines

Department of Petroleum Engineering (<https://www.uaf.edu/cem/programs/petroleum-engineering/>)
907-474-7734

B.S., PETROLEUM ENGINEERING

The petroleum engineering program's program educational objectives are:

1. Our graduates will apply their technical knowledge and data analytics skills and have successful careers in the oil and gas industry analyzing real-world petroleum engineering problems, developing innovative solutions underpinned by data and communicating these to meet the needs of multiple stakeholders within the global community.
2. Our graduates will demonstrate professionalism, commitment to ethical standards and lifelong learning through continuing professional development during their careers.
3. Our graduates will contribute significantly to the global petroleum engineering profession and they will exemplify the behaviors, including integrity, empathy, tolerance and respect and fair dealing, necessary to become industry leaders within and beyond Alaska.

Minimum Requirements for Petroleum Engineering Bachelor's Degree:
131 credits

Learn more about the bachelor's degree in petroleum engineering (<https://uaf.edu/academics/programs/bachelors/petroleum-engineering.php>), including an overview of the program, career opportunities and more.

M.S., PETROLEUM ENGINEERING

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The M.S. program is intended to provide students with an advanced treatment of petroleum engineering concepts. Students may choose either a thesis or non-thesis option. Research and teaching assistantships are available.

A doctoral degree program is offered with a concentration in petroleum engineering for qualified students. Contact the graduate program coordinator or the petroleum engineering department for more information.

Minimum Requirements for Petroleum Engineering Master's Degree:
30-36 credits

Learn more about the master's degree in petroleum engineering (<https://www.uaf.edu/academics/programs/masters/petroleum-engineering.php>), including an overview of the program, career opportunities and more.

PH.D., ENGINEERING

Engineers use knowledge of the mathematical and natural sciences to develop economical uses of materials and forces of nature for human benefit. The professional practice of engineering requires sophisticated skills, the use of judgment and the exercise of discretion. The basic education necessary for the professional practice of engineering is provided by the engineering bachelor's and master's degrees. Doctoral-level education requires independent research that generates fundamental advances in technology and discovers new knowledge for the benefit of society. Engineering Ph.D. degrees provide leadership in scientific research, academia and industrial research and development. The Ph.D. degree in engineering draws on the combined strength of the College of Engineering and Mines and offers opportunities for engineers at other UA campuses to participate.

Minimum Requirements for Engineering Doctorate Degree: 36 credits

Programs Degrees

- B.S., Petroleum Engineering (<https://catalog.uaf.edu/bachelors/petroleum-engineering-bs/>)
- M.S., Petroleum Engineering (<https://catalog.uaf.edu/masters/petroleum-engineering/>)
- Ph.D., Engineering with Petroleum Concentration (<https://catalog.uaf.edu/phd/engineering/>)