

B.S., PETROLEUM ENGINEERING

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Petroleum Engineering, B.S.: 133 credits

Code	Title	Credits
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General University Requirements

Complete the general university requirements. (<https://catalog.uaf.edu/archives/2020-2021/bachelors/>)

General Education Requirements

Complete the general education requirements. (<https://catalog.uaf.edu/archives/2020-2021/bachelors/general-education-requirements/>)

As part of the general education requirements, complete:

CHEM F105X	General Chemistry I	
CHEM F106X	General Chemistry II	
MATH F251X	Calculus I	

B.S. Degree Requirements

Complete the B.S. degree requirements. (<https://catalog.uaf.edu/archives/2020-2021/bachelors/summary-of-bachelors-degree-reqs/#bachelorofsciencetext>)

As part of the B.S. degree requirements, complete:

LS F101X	Library Information and Research	
MATH F252X	Calculus II	
PHYS F211X	General Physics I	
PHYS F212X	General Physics II	

Petroleum Engineering Program Requirements

ES F201	Computer Techniques	3
ES F208	Mechanics	4
ES F331	Mechanics of Materials	3
ES F341	Fluid Mechanics	4
ES F346	Introduction to Thermodynamics	3
GE F261	General Geology for Engineers	3-4
or GEOS F101X	The Dynamic Earth	
PETE F101	Fundamentals of Petroleum, Drilling and Production	3
PETE F301	Reservoir Rock and Fluid Properties	4
PETE F302	Well Logging	3
PETE F303	Reservoir Rock and Fluid Properties Laboratory	1
PETE/GEOS F370	Sedimentology and Structural Geology for Petroleum Engineers	4
PETE F407	Petroleum Production Engineering	3
PETE F411	Drilling Fluids Laboratory	1
PETE F421	Reservoir Characterization	3
PETE F426	Drilling Engineering	3
PETE F431	Natural Gas Engineering	2
PETE F456	Petroleum Evaluation and Economic Decisions	3

PETE F466	Petroleum Recovery Methods	3
PETE F476	Petroleum Reservoir Engineering	3
PETE F478	Well Test Analysis	2
PETE F481	Well Completions and Stimulation Design	3
PETE F487A	Petroleum Project Design ^{1,2}	1
PETE F487B	Petroleum Project Design ²	1
PETE F489	Reservoir Simulation	2
Engineering elective ³		3
Technical elective ⁴		3

Program Requirements

MATH F253X	Calculus III	4
MATH F302	Differential Equations	3
MATH F426	Numerical Analysis	3
or ES F301	Engineering Analysis	

Fundamentals of Engineering (FE) Examination

Complete the Fundamentals of Engineering (FE) examination administered by the State of Alaska.

- ¹ PETE F487A is prerequisite for PETE F487B.
- ² Fulfills the baccalaureate capstone requirement.
- ³ As approved by advisor (e.g. ME F416 or ES F307).
- ⁴ As approved by advisor (e.g. CE F603).