

PETROLEUM ENGINEERING B.S.

Program Requirements

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Minimum Requirements for Petroleum Engineering, B.S.: 131 credits

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

Code	Title	Credits
General University Requirements		
Complete the general university requirements. (https://catalog.uaf.edu/bachelors/#gurbachelorsdegreestext)		
General Education Requirements		
Complete the general education requirements. (https://catalog.uaf.edu/bachelors/#generaleducationrequirementstext)		36-40
As part of the general education requirements, complete the following:		
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/bachelors/#bachelorofsciencetext)		16
As part of the B.S. requirements, complete the following:		
LS F101X	Library Information and Research	
MATH F252X	Calculus II	
PHYS F211X	General Physics I	
PHYS F212X	General Physics II	
Petroleum Engineering Program Requirements		
Complete the following:		
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	
MATH F253X	Calculus III	4
MATH F302	Differential Equations	3
MATH F426	Numerical Analysis	3
or ES F301	Engineering Analysis	
PETE F101	Fundamentals of Petroleum, Drilling and Production	2
PETE F201	Future Trends in the Oil and Gas Industry	1
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 F469	Enhanced Oil Recovery and Reservoir Simulation	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
STAT F300	Statistics	3
Complete one of the following approved electives:		3
CE F424	Permafrost Engineering	
ES F307	Elements of Electrical Engineering	
ESM F422	Engineering Decisions	
ME F441	Heat and Mass Transfer	
ME F458	Energy and the Environment	
Fundamentals of Engineering (FE) Examination		
Fundamentals of Engineering (FE) examination administered by the State of Alaska.		
Total Credits		131

¹ PETE F487A is prerequisite for PETE F487B.

² Fulfills the baccalaureate capstone requirement.