

# PETROLEUM ENGINEERING B.S.

## Program Requirements

< Back to Department (<http://catalog.uaf.edu/academic-departments/petroleum-engineering/>)

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

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

Code	Title	Credits
<b>General University Requirements</b>		
Complete the general university requirements. ( <a href="http://catalog.uaf.edu/bachelors/#gurbachelorsdegreestext">http://catalog.uaf.edu/bachelors/#gurbachelorsdegreestext</a> )		
<b>General Education Requirements</b>		
Complete the general education requirements. ( <a href="http://catalog.uaf.edu/bachelors/#generaleducationrequirementstext">http://catalog.uaf.edu/bachelors/#generaleducationrequirementstext</a> )		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>B.S. Degree Requirements</b>		
Complete the B.S. degree requirements. ( <a href="http://catalog.uaf.edu/bachelors/#bachelorofsciencetext">http://catalog.uaf.edu/bachelors/#bachelorofsciencetext</a> )		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	
<b>Petroleum Engineering Program Requirements</b>		
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 <sup>1,2</sup>	1
PETE F487B	Petroleum Project Design <sup>2</sup>	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	
<b>Fundamentals of Engineering (FE) Examination</b>		
Fundamentals of Engineering (FE) examination administered by the State of Alaska.		
<b>Total Credits</b>		<b>131</b>

<sup>1</sup> PETE F487A is prerequisite for PETE F487B.

<sup>2</sup> Fulfills the baccalaureate capstone requirement.