

# Bachelor of Science in Petroleum Engineering

Required 129 credits (36 of which must be numbered 300 or above) including:

I. Essential Studies Requirements (see University ES listing).

II. Petroleum Engineering required courses:

Code	Title	Credits
PTRE 201	Introduction to Petroleum Engineering	3
PTRE 301	Reservoir Rock Properties	3
PTRE 311	Petroleum Fluid Properties	3
PTRE 361	Petroleum Engineering Laboratory I	1
PTRE 401	Well Logging	3
PTRE 405	Petroleum Eng. Economy and Law	3
PTRE 411	Drilling Engineering	3
PTRE 421	Production Engineering	3
PTRE 431	Reservoir Engineering	3
PTRE 445	Well Testing	3
PTRE 451	Advanced Drilling Engineering	3
PTRE 462	Petroleum Engineering Laboratory II	1
PTRE 465	Petroleum Geomechanics	3
PTRE 471	Numerical Reservoir Simulation	3
PTRE 475	Well Completions	3
PTRE 484	Research Design	3
PTRE 485	Senior Design	3
<b>Total Credits</b>		<b>47</b>

III. Program Required Electives

Code	Title	Credits
<b>Technical Electives</b>		<b>6</b>
PTRE 461	Natural Gas Engineering	3
PTRE 493	Selected Topics in Petroleum Engineering	1-4
ENGR 490	Topics in Engineering	1-3
GEOL 330	Structural Geology	3
GEOL 411	Sedimentology and Stratigraphy	3
GEOL 414	Applied Geophysics	3
GEOE 417	Hydrogeology	3

IV. College of Engineering and Mines Requirements:

Code	Title	Credits
ENGR 200	Computer Applications in Engineering	2
ENGR 201	Statics	3
ENGR 203	Mechanics of Materials	3
ENGR 340	Professional Integrity in Engineering	3
GEOE 210	Earth Dynamics Geophysics	4
GEOL 407	Petroleum Geology	3
CHE 315	Engineering Statistics and Design of Experiments	3
or MATH 321	Applied Statistical Methods	
ME 306	Fluid Mechanics	3
ME 341	Thermodynamics	3
<b>Total Credits</b>		<b>27</b>

V. Requirements outside of the College of Engineering and Mines:

Code	Title	Credits
CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	4

CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4
MATH 165	Calculus I	4
MATH 166	Calculus II	4
MATH 265	Calculus III	4
MATH 266	Elementary Differential Equations	3
PHYS 251	University Physics I	4
or PHYS 251C & 251CL	University Physics I and University Physics I Lab	
PHYS 252	University Physics II	4
or PHYS 252C & 252CL	University Physics II and University Physics II Lab	
<b>Total Credits</b>		<b>31</b>

All courses taken in the College of Engineering and Mines must be completed with a "C" or higher. Students need to meet a minimum of 2.0 GPA within the College of Engineering and Mines.

Students must ensure all appropriate pre-requisites are met prior to registering for all courses in the curriculum.