

BACHELOR OF SCIENCE WITH A MAJOR IN PETROLEUM ENGINEERING (BS)

Degree Requirements

CIP:14.2501.00

Hours Required

A minimum of 129 semester credit hours (SCH): 45 hours must be advanced, and fulfillment of degree requirements as specified in the "Requirements for Graduation (<http://catalog.tamui.edu/undergraduate-information/academic-regulations/>)" section of this catalog.

Code	Title	Semester Credit Hours
[University Core Curriculum] (https://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/)		
Select 42 SCH as outlined in the suggested plans and as specified in the "Requirements for Graduation." MATH 2413 and PHYS 2325 must be taken as part of the core.		42
Major		
<i>Engineering</i>		
CSCE 1136	Funds of Programming Lab	1
CSCE 1336	Fundamentals of Programming	3
ENGR 1201	Foundations of Engineering	2
ENGR 1304	Computer-Aided Design	3
ENGR 2103	Statics & Dynamics Lab	1
ENGR 2303	Statics & Dynamics	3
ENGR 2105	Principles of Elec Engr Lab	1
ENGR 2305	Principles of Elec Engineering	3
ENGR 2360	Thermodynamics & Fluid Mech	3
ENGR 2372	Engineering Statistics	3
ENGR 2390	Mechanics of Materials	3
<i>Petroleum Engineering</i>		
ENGR 3300	Engineering Economics	3
PETE 3101	Drilling Engineering I Lab	1
PETE 3301	Drilling Engineering I	3
PETE 3307	Reservoir Engineering I	3
PETE 3110	Petrophysics Lab	1
PETE 3310	Petrophysics	3
PETE 3111	Well Log & Formation Eval Lab	1
PETE 3311	Well Log & Formation Eval	3
PETE 3120	Petroleum Production Eng I Lab	1
PETE 3320	Petroleum Production Eng I	3
PETE 3330	Reservoir Fluids	3
PETE 4321	Petroleum Production Eng. II	3
PETE 4370	Well Testing	3
PETE 4382	Reserv Modeling & Simulation	3

PETE 4190	Senior Design I	1
PETE 4290	Senior Design II	2
Math and Sciences		
GEOL 3420	Petroleum Geology	4
PHYS 2125	University Physics I Lab	1
PHYS 2126	University Physics II Lab	1
PHYS 2326	University Physics II	3
MATH 2414	Calculus II	4
MATH 2415	Calculus III	4
MATH 3330	Ordinary Diff Equations	3
Select 1 SCH surplus from core		1
Petroleum Engineering Electives		
Select 3 SCH from the following:		3
PETE 3340	Geophysics for Petro Engineers	
PETE 4302	Drilling Engineering II	
PETE 4312	Reservoir Engineering II	
PETE 4313	Integrated Reservoir Mngt	
PETE 4322	Artificial Lift	
PETE 4330	Petroleum Data Analytics & ML	
PETE 4332	Env Hlth & Saf in Oil Indus	
PETE 4152	Internship in PETE	
PETE 4252	Internship in PETE	
PETE 4352	Internship in PETE	
PETE 4355	Drilling Optimization	
PETE 4380	Shale Oil & Gas Engineering	
PETE 4185	Special Topics in PETE	
PETE 4285	Special Topics in PETE	
PETE 4385	Special Topics in PETE	
PETE 4195	Undergraduate Research in PETE	
PETE 4295	Undergraduate Research in PETE	
PETE 4395	Undergraduate Research in PETE	
PETE 4199	Directed Study in PETE	
PETE 4299	Directed Study in PETE	
PETE 4399	Directed Study in PETE	

Total Semester Credit Hours 129

Four-Year Degree Plan

Following is a suggested four-year degree plan. Students are encouraged to see their advisor each semester for help with program decisions and enrollment; responsible for reviewing the **Program of Study Requirements**, meeting all course prerequisites, and **writing intensive course (WIN)** requirements for graduation. See Academic Regulations-Undergraduate online. (<https://catalog.tamui.edu/undergraduate-information/academic-regulations/>)

Freshman

Fall		Semester Credit Hours
CHEM 1111	General Chemistry I-Lab	1
CHEM 1311	General Chemistry I	3
ENGL 1301	English Composition I	3
ENGR 1201	Foundations of Engineering	2

HIST 1301	The US to 1877	3
MATH 2413	Calculus I	4
UNIV 1201	Learn a Global Context I	2

Semester Credit Hours **18**

Spring

ENGL 2311	Technical Communication-WIN	3
HIST 1302	The US Since 1877	3
PHYS 2125	University Physics I Lab	1
PHYS 2325	University Physics I	3
MATH 2414	Calculus II	4
UNIV 1302	Signature Course	3

Semester Credit Hours **17**

Sophomore
Fall

ENGR 2103	Statics & Dynamics Lab	1
ENGR 2303	Statics & Dynamics	3
ENGR 2360	Thermodynamics & Fluid Mech	3
MATH 2415	Calculus III	4
PSCI 2305	American National Government	3
PHYS 2126	University Physics II Lab	1
PHYS 2326	University Physics II	3

Semester Credit Hours **18**

Spring

ENGR 2105	Principles of Elec Engr Lab	1
ENGR 2305	Principles of Elec Engineering	3
ENGR 2372	Engineering Statistics	3
ENGR 2390	Mechanics of Materials	3
GEOL 3420	Petroleum Geology	4
PSCI 2306	American State Government	3

Semester Credit Hours **17**

Junior
Fall

PETE 3110	Petrophysics Lab	1
PETE 3310	Petrophysics	3
PETE 3111	Well Log & Formation Eval Lab	1
PETE 3311	Well Log & Formation Eval	3
PETE 3330	Reservoir Fluids	3
MATH 3330	Ordinary Diff Equations	3

Semester Credit Hours **14**

Spring

CSC 1136	Funds of Programming Lab	1
CSC 1336	Fundamentals of Programming	3
PETE 3101	Drilling Engineering I Lab	1
PETE 3301	Drilling Engineering I	3
PETE 3307	Reservoir Engineering I	3
PETE 3120	Petroleum Production Eng I Lab	1
PETE 3320	Petroleum Production Eng I	3

Semester Credit Hours **15**

Senior
Fall

ENGR 1304	Computer-Aided Design	3
ENGR 3300	Engineering Economics	3
PETE 4190	Senior Design I	1
PETE 4321	Petroleum Production Eng. II	3
PETE 4382	Reserv Modeling & Simulation	3
Lang., Phil., & Culture		3

Semester Credit Hours **16**

Spring

PETE 4290	Senior Design II	2
PETE 4370	Well Testing	3
Advanced PETE Elective*		3
Creative Arts		3
Social & Behavioral Sciences		3

Semester Credit Hours **14**

Total Semester Credit Hours **129**

*Advanced PETE Electives: select 3 semester credit hours from PETE 3340, PETE 4302, PETE 4312, PETE 4313, PETE 4322, PETE 4330, PETE 4332, PETE 4152-4352, PETE 4355, PETE 4380, PETE 4185-4385, PETE 4195-4395, or PETE 4199-4399.

Actual degree plans may vary depending on the availability of courses in a given semester.

Some courses may require prerequisites not listed.