

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

## Degree Requirements

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] ( <a href="http://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/">http://catalog.tamui.edu/appendix-a-core-curriculum-optional-course-information/</a> )		
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
<b>Major</b>		
<i>Engineering</i>		
ENGR 1201	Foundations of Engineering I	2
ENGR 2303	Statics & Dynamics	3
ENGR 2103	Eng Mech Statics & Dynamic Lab	1
ENGR 2236	Programming for Engineers	2
ENGR 2376	Cons Prin in Thermal Engr	3
ENGR 2380	Fluid Mechanics	3
ENGR 2390	Mechanics of Materials	3
ENGR 3301	Engineering Ethics	3
<i>Petroleum Engineering</i>		
PETE 3300	Petroleum Economics	3
PETE 3301	Drilling Engineering I	3
PETE 3101	Drilling Engineering I Lab	1
PETE 3310	Res Rock & Fluid Properties	3
PETE 3110	Res Rock & Fluid Propert Lab	1
PETE 3307	Reservoir Engineering I	3
PETE 3311	Formation Evaluation	3
PETE 3111	Formation Evaluation Lab	1
PETE 3320	Petroleum Production Eng I	3
PETE 3120	Petroleum Production Eng I Lab	1
PETE 4370	Well Testing	3
PETE 4380	Shale Oil & Gas Engineering	3
PETE 4382	Reserv Modeling & Simulation	3
PETE 4190	Senior Eng Capstone Proposal	1
PETE 4290	Senior Eng Capstone Design	2
<b>Math and Sciences</b>		
GEOL 1303	Intro to Physical Geology	3
GEOL 1103	Intro to Physical Geology Lab	1
GEOL 3320	Petroleum Geology	3
PHYS 2125	University Physics I Lab	1

PHYS 2326	University Physics II	3
PHYS 2126	University Physics II Lab	1
MATH 2414	Calculus II	4
MATH 2415	Calculus III	4
MATH 3330	Ordinary Diff Equations	3
Select 1 SCH surplus from core		1
<b>Petroleum Engineering Electives</b>		
Select 9 SCH from the following:		9
PETE 4302	Drilling Engineering II	
PETE 3340	Geophysics for Petro Engineers	
PETE 4312	Reservoir Engineering II	
PETE 4313	Integrated Reservoir Mngt	
PETE 4321	Petroleum Production Eng. II	
PETE 4322	Artificial Lift	
PETE 4332	Env Hlth & Saf in Oil Indus	
PETE 4355	Drilling Optimization	

**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. (<http://catalog.tamui.edu/undergraduate-information/academic-regulations/>)

### Freshman

Fall	Semester Credit Hours	
ENGL 1301	English Composition I	3
CHEM 1311	General Chemistry I	3
CHEM 1111	General Chemistry I-Lab	1
ENGR 1201	Foundations of Engineering I	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
MATH 2414	Calculus II	4
PHYS 2325	University Physics I	3
PHYS 2125	University Physics I Lab	1
UNIV 1302	Signature Course	3

**Semester Credit Hours** 17

### Sophomore

Fall	Semester Credit Hours	
PSCI 2305	American National Government	3
ENGR 2303	Statics & Dynamics	3
ENGR 2103	Eng Mech Statics & Dynamic Lab	1
GEOL 1303	Intro to Physical Geology	3

GEOL 1103	Intro to Physical Geology Lab	1
MATH 2415	Calculus III	4
Language, Philosophy & Culture		3
<b>Semester Credit Hours</b>		<b>18</b>

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

*Some courses may require prerequisites not listed.*

**Spring**

ENGR 2376	Cons Prin in Thermal Engr	3
ENGR 2390	Mechanics of Materials	3
GEOL 3320	Petroleum Geology	3
PHYS 2326	University Physics II	3
PHYS 2126	University Physics II Lab	1
Social Behavioral Science		3
<b>Semester Credit Hours</b>		<b>16</b>

**Junior**
**Fall**

ENGR 2380	Fluid Mechanics	3
PETE 3310	Res Rock & Fluid Properties	3
PETE 3110	Res Rock & Fluid Propert Lab	1
PETE 3311	Formation Evaluation	3
PETE 3111	Formation Evaluation Lab	1
MATH 3330	Ordinary Diff Equations	3
Creative Arts		3
<b>Semester Credit Hours</b>		<b>17</b>

**Spring**

ENGR 2236	Programming for Engineers	2
PETE 3307	Reservoir Engineering I	3
PETE 3301	Drilling Engineering I	3
PETE 3101	Drilling Engineering I Lab	1
PSCI 2306	American State Government	3
PETE - Adv Elective		3
<b>Semester Credit Hours</b>		<b>15</b>

**Senior**
**Fall**

ENGR 3301	Engineering Ethics	3
PETE 3300	Petroleum Economics	3
PETE 3320	Petroleum Production Eng I	3
PETE 3120	Petroleum Production Eng I Lab	1
PETE 4190	Senior Eng Capstone Proposal	1
PETE 4380	Shale Oil & Gas Engineering	3
<b>Semester Credit Hours</b>		<b>14</b>

**Spring**

PETE 4290	Senior Eng Capstone Design	2
PETE 4370	Well Testing	3
PETE 4382	Reserv Modeling & Simulation	3
PETE - Adv Elective		3
PETE - Adv Elective		3
<b>Semester Credit Hours</b>		<b>14</b>

**Total Semester Credit Hours 129**