



Bachelor of Science  
**PETROLEUM ENGINEERING**  
 Degree Map | 2020-2021

	<b>YOUR CLASS SCHEDULE</b>	<b>ACADEMIC ADVISING</b>	<b>ENRICHING EXPERIENCES</b>	<b>LIFELONG SUCCESS</b>
<b>Freshman</b>	<ul style="list-style-type: none"> <li>Focus on General Education, Math, and Science courses</li> <li>Enroll in 15 and 17 credit hours in Fall and Spring semesters, respectively</li> </ul>	<ul style="list-style-type: none"> <li>Participate in New Student Orientation</li> <li>Meet with your Academic Advising Center Freshman Advisor before registration</li> <li>Ask your Advisor about the recommended course sequencing for your degree plan</li> </ul>	<p><b>Prioritize Your Wellness</b></p> <ul style="list-style-type: none"> <li>Participate in campus recreation</li> <li>Attend Financial Literacy seminars</li> <li>Form healthy study habits</li> </ul> <p><b>Build Your Community</b></p> <ul style="list-style-type: none"> <li>Use FalconLink &amp; attend Club Day</li> <li>Volunteer</li> <li>Attend campus events</li> <li>Explore student chapters of professional societies: SPE, AADE, ARMA, TSPE</li> </ul> <p><b>Explore Your World</b></p> <ul style="list-style-type: none"> <li>Attend an athletics event, musical performance, or visit the art gallery</li> </ul>	<p><b>Build Your Brand</b></p> <ul style="list-style-type: none"> <li>Draft your resume</li> <li>Register for the Job Board</li> <li>Seek freshman research opportunities</li> </ul> <p><b>Craft Your Future</b></p> <ul style="list-style-type: none"> <li>Explore career options</li> <li>Have coffee with a faculty member</li> <li>Seek summer internship opportunities</li> </ul>
<b>Sophomore</b>	<ul style="list-style-type: none"> <li>Complete basic math and science courses</li> <li>Start core engineering courses</li> <li>Enroll in 15 and 16 credit hours in Fall and Spring semesters, respectively</li> </ul>	<ul style="list-style-type: none"> <li>Meet with your Academic Advising Center Freshman Advisor before registration</li> <li>Verify course sequencing with your academic advisor</li> </ul>	<ul style="list-style-type: none"> <li>Actively participate in the professional society of your choice</li> </ul> <p><b>Prioritize Your Wellness</b></p> <ul style="list-style-type: none"> <li>Enjoy outdoor spaces on campus</li> </ul> <p><b>Build Your Community</b></p> <ul style="list-style-type: none"> <li>Join an organization</li> <li>Explore campus leadership (SGA, Orientation Leader, Resident Asst.)</li> <li>Participate in a professional society</li> </ul> <p><b>Explore Your World</b></p> <ul style="list-style-type: none"> <li>Consider study abroad</li> <li>Attend a lecture series</li> </ul>	<p><b>Build Your Brand</b></p> <ul style="list-style-type: none"> <li>Update your resume</li> <li>Join LinkedIn</li> <li>Consider student employment</li> </ul> <p><b>Craft Your Future</b></p> <ul style="list-style-type: none"> <li>Participate in mock interviews</li> <li>Explore professional licensing of engineers</li> <li>Attend an internship/career fair</li> <li>Continue summer internship program</li> </ul>
<b>Junior</b>	<ul style="list-style-type: none"> <li>Complete core engineering courses</li> <li>Start petroleum engineering courses</li> <li>Enroll in 17 and 15 credit hours in Fall and Spring semesters, respectively</li> </ul>	<ul style="list-style-type: none"> <li>Meet with your engineering academic advisor before registration</li> <li>Verify course sequencing with your engineering academic advisor</li> </ul>	<p><b>Prioritize Your Wellness</b></p> <ul style="list-style-type: none"> <li>Attend a health fair</li> </ul> <p><b>Build Your Community</b></p> <ul style="list-style-type: none"> <li>Run for organization officer role</li> <li>Apply to be a Falcon Ambassador</li> </ul> <p><b>Explore Your World</b></p> <ul style="list-style-type: none"> <li>Consider study abroad</li> <li>Participate in service learning</li> </ul>	<p><b>Build Your Brand</b></p> <ul style="list-style-type: none"> <li>Update your resume</li> <li>Attend workshops on job hunting and interviewing</li> <li>Conduct research with faculty</li> </ul> <p><b>Craft Your Future</b></p> <ul style="list-style-type: none"> <li>Commit to preparing for the Fundamentals of Engineering Examination in the semester prior to graduation</li> <li>Continue with summer internship program</li> </ul>
<b>Senior</b>	<ul style="list-style-type: none"> <li>Complete petroleum engineering courses</li> <li>Complete industrial track courses</li> <li>Enroll in 15 and 16 credit hours in Fall and Spring semesters, respectively</li> </ul>	<ul style="list-style-type: none"> <li>Meet with your engineering academic advisor before registration</li> <li>Finalize course selections for spring graduation</li> </ul>	<p><b>Prioritize Your Wellness</b></p> <ul style="list-style-type: none"> <li>Attend financial literacy seminars</li> </ul> <p><b>Build Your Community</b></p> <ul style="list-style-type: none"> <li>Attend your ring ceremony</li> <li>Join Alumni Association upon graduation</li> </ul> <p><b>Explore Your World</b></p> <ul style="list-style-type: none"> <li>Consider study abroad (summer prior to senior year)</li> </ul>	<p><b>Build Your Brand</b></p> <ul style="list-style-type: none"> <li>Update your resume</li> <li>Present research</li> </ul> <p><b>Craft Your Future</b></p> <ul style="list-style-type: none"> <li>Prepare for the Fundamentals of Engineering Examination in the spring semester</li> <li>Attend career fairs</li> <li>Apply for full time jobs</li> </ul>

**UTPB students will graduate with these skills:**

- Leadership
- Problem-solving
- Communication
- Engineering Design
- Social Responsibility
- Confidence
- Global Awareness
- Teamwork
- Critical Thinking

**Career opportunities:**

- Petroleum Engineer
- Technical Sales
- Project Manager
- Reservoir Engineering
- Production Engineering
- Drilling Engineering
- Unconventional Resources



## BACHELOR OF SCIENCE IN PETROLEUM ENGINEERING REQUIREMENTS

### Semester 1

ENGL 1301 English Composition I  
MATH 2413 Calculus I  
CHEM 1311 General Chemistry I  
CHEM 1111 General Chemistry lab I  
GEOL 1301 Physical Geology  
GEOL 1101 Physical Geology Lab

**15 hours**

### Semester 2

ENGL 1302 English Composition II  
MATH 2414 Calculus II  
PHYS 2325 University Physics I  
PHYS 2125 University Physics I Lab  
PLSC 2305 American National Politics  
COMM Communication elective

**17 hours**

### Semester 3

PHYS 2326 University Physics II  
PHYS 2126 University Physics II Lab  
ENGR 2403 Statics and Dynamics  
MATH 3320 Differential Equations  
PENG 2101 Petroleum Fundamentals

Lang/Phil/Cult. Elective

**15 hours**

### Semester 4

MATH 2415 Calculus III  
MATH 3301 Introduction to Probability  
GEOL 3212 Sedimentary Rocks  
GEOL 3112 Sedimentary Rocks Lab  
PENG 3302 Res. Rock and Fluids Prop.

PENG 3307 Formation Evaluation

**16 hours**

### Semester 5

HIST 1301 US History to 1877  
PENG 3354 Petr. Fluid Mechanics  
ENGR 3332 Mechanics of Materials  
PENG 3301 Drilling Engineering  
PENG 3101 Drilling Fluids Lab  
PENG 3304 Reservoir Engineering  
PENG 3104 Res. Engineering Lab

**17 hours**

### Semester 6

ARTS Arts Elective  
PENG 3375 Pet. Fl. & Thermodynamics  
PENG 3305 Well Design  
PENG 3326 Pet. Res. Econ. & Val.  
PENG 4301 Production Engineering

**15 hours**

### Semester 7

PLSC 2306 State and Local Politics  
PENG 4309 Pet. Data Analytics  
PENG 4302 Well Testing  
PENG 4305 Reservoir Engineering II  
PENG 43xx PENG Elective

**15 hours**

### Semester 8

Soc/Behv Sci. Elective  
HIST 1302 US History since 1877  
PENG 4303 Reservoir Description  
PENG 43xx PENG Elective  
PENG 4410 Senior Design

**16 hours**