

## WANT TO BE A PART OF THE WORLD'S FUTURE IN ENERGY?

### PROSPECTS ARE GUSHING FOR PETROLEUM ENGINEERS!

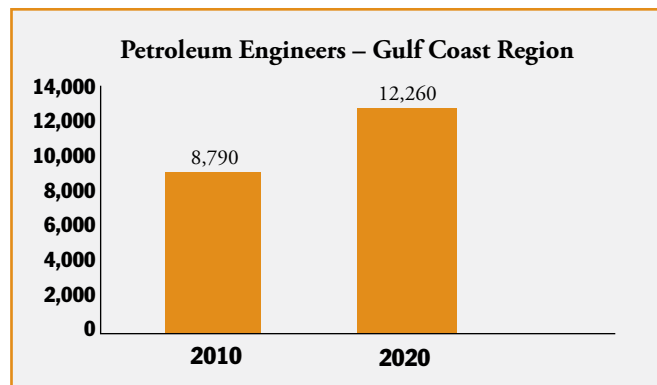
Petroleum engineers are in short supply and starting salaries are among the highest of any engineering occupations. Work in this field is high-tech and exciting.

#### Factors contributing to the shortage:

- the oil bust of the 1980s has left a negative impression on the industry
- a workforce that is approaching retirement age
- limited training programs available



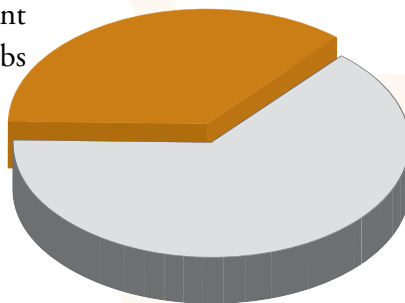
### THE GULF COAST REGION NEEDS TO TRAIN 540 PETROLEUM ENGINEERS EVERY YEAR FROM 2010 TO 2020 TO KEEP UP WITH DEMAND!



### PETROLEUM ENGINEERS EARN TOP WAGES, AVERAGING ANNUAL SALARIES OF MORE THAN \$145,000 IN 2011!

Due to Replacement  
195 Jobs

Due to Growth  
345 Jobs



Annual Job Openings – Gulf Coast Region

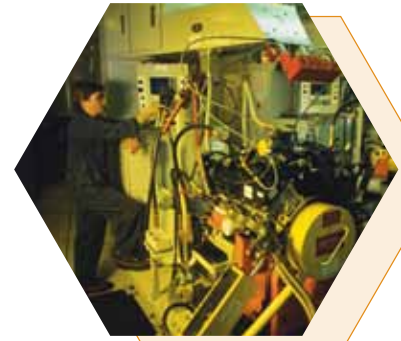
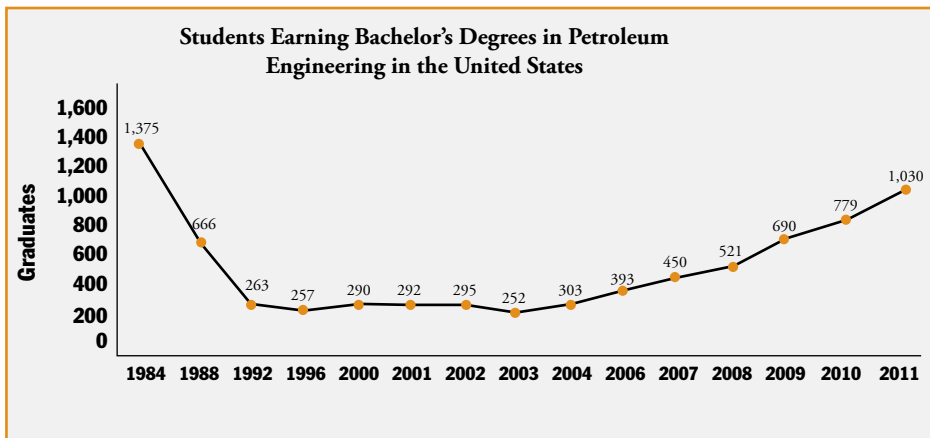
Brought to you by the Education Committee of The Gulf Coast Workforce Board.  
For more information visit us on the web at [www.wrksolutions.com](http://www.wrksolutions.com)  
Latest data available. June 2013.

\*Includes the following counties: Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton.

# FOCUS ON PETROLEUM ENGINEERING

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## THE NUMBER OF GRADUATES HAS PLUMMETED SINCE THE 1980s



Source: US Department of Education, National Center for Education Statistics.

## PATHWAY TO EARNING A DEGREE IN PETROLEUM ENGINEERING

- A Bachelor of science degree in petroleum engineering
- A Master's degree in petroleum engineering

After completing a B.S. in petroleum engineering, you could be assigned to an office position for orientation before being sent out for field experience. Some entry-level experiences include well-work operations, facilities productions, surveillance activities, or even drilling. Large numbers of petroleum engineers can be found in our region, as well as, Louisiana, Alaska, California, and the Rocky Mountain States. Petroleum Engineers have opportunities for work throughout the world on land, offshore and in deep water.

## START EARLY AND BE PREPARED!

Admission requirements for undergraduate engineering schools include a solid background in mathematics (algebra, geometry, and calculus) and science (biology, chemistry, and physics), with courses in English, social studies, and humanities. Bachelor's degree programs in engineering typically are designed to last four years, but many students find that it takes between four and five years to complete their studies. Strive to get good grades throughout high school and seek college preparatory and advanced placement programs. Make notes of admission application deadlines to take necessary action and apply in time.

# FOCUS ON PETROLEUM ENGINEERING

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## WHAT DO PETROLEUM ENGINEERS DO?

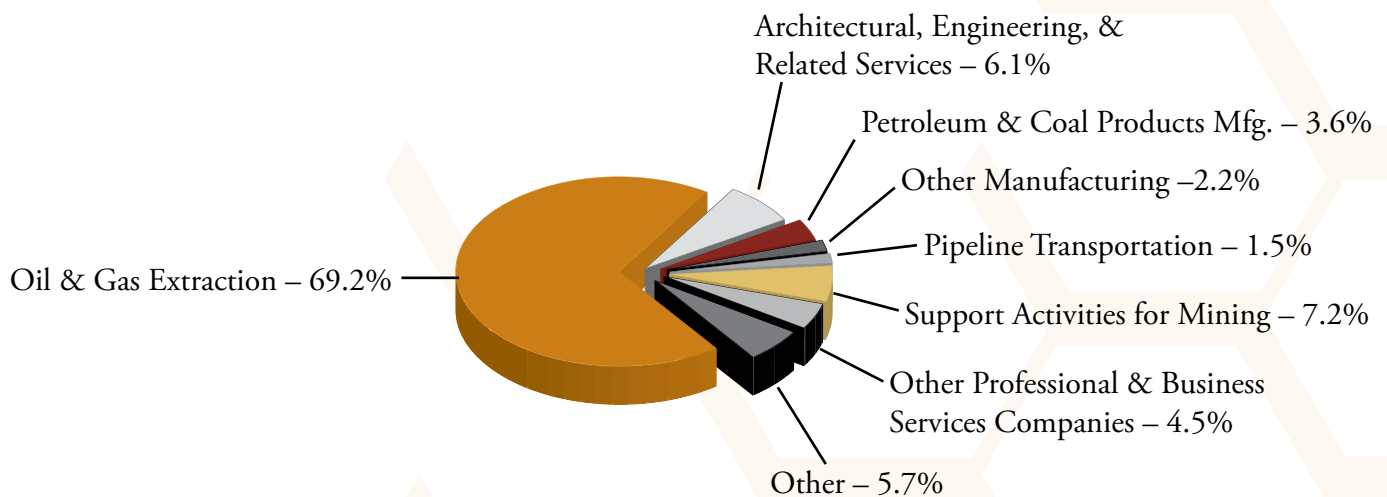
- Work with the latest technology
- Analyze oil and gas fields to determine their size
- Determine drilling methods
- Monitor drilling and production of oil and gas wells
- Design equipment and processes to maximize how much oil and gas is recovered

## TYPES OF PETROLEUM ENGINEERING JOBS

- Drilling engineer
- Production engineer
- Reservoir engineer
- Completion engineer
- Environmental engineer
- And many more!



## Petroleum Engineering Jobs – Gulf Coast Region 2020



# FOCUS ON PETROLEUM ENGINEERING

## PREPARING FOR A PETROLEUM ENGINEERING CAREER\*

9th Grade		Suggested Coursework	
	English I	World Geography	<b>Career-Related Electives:</b> Technology Systems (Modular Lab Based) or Research and Technical Writing or Communications Systems
	Algebra I	Languages other than English I	
	Biology	Health/PE or Equivalent	
10th Grade		Suggested Coursework	
	English II	World History	<b>Career-Related Electives:</b> Engineering Principles
	Geometry	Languages other than English II	
	Chemistry	Technology Applications	
11th Grade		Suggested Coursework	
	English III	United States History	<b>Career-Related Electives:</b> Energy, Power, and Transportation Systems or Manufacturing Systems AND Languages other than English III
	Algebra II	Communication Applications	
	Physics	PE or Equivalent	
12th Grade		Suggested Coursework	
	English IV	Government/Economics	<b>Career-Related Electives:</b> Research Design and Development or Communication Graphics or Computer Multimedia and Animation AND Languages other than English IV
	Precalculus	Fine Arts	
	Engineering		

\*Source: AchieveTexas.org

# FOCUS ON PETROLEUM ENGINEERING

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## PETROLEUM ENGINEERING PROGRAMS

### UNIVERSITIES

- Louisiana State University
- Texas A&M University
- Texas Tech University
- University of Houston
- University of Louisiana
- University of Oklahoma
- University of Texas at Austin



### MAJOR EMPLOYERS IN THE GULF COAST REGION

- Anadarko Energy Service Co.
- Marathon Oil Co.
- Schlumberger Companies
- Spirit Energy
- Unocal
- Anadarko Petroleum Corp.
- Amerada Hess Corp.
- Apache Corp.
- Oxy USA, Inc.
- Calpine Natural Gas Co.
- Citation Oil & Gas Corp.
- ConocoPhillips
- Devon Energy Corp.
- El Paso Production
- Enterprise Products Partners
- Hilcorp Energy
- Occidental
- Panhandle Eastern

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