



Oil and Gas Production I/Lab
Foundations of Energy

Level 1

Oil and Gas Production II/Lab
Occupational Safety and
Environmental Technology I

Level 2

Oil and Gas Production III
Occupational Safety and
Environmental Technology II
Career Preparation

Level 3

Oil and Gas Production IV
Project Based Research
Applied Mathematics for Technical
Professionals
Practicum in Energy (TBD)

Level 4

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
	Above Ground Storage Tanks Inspector Certification	Petroleum Engineering	Petroleum Engineering	Petroleum Engineering
	Pressure Vessels Inspector Certification	Chemical Engineering	Chemical Engineering	Chemical Engineering
	Piping Inspector Certification	Petroleum Technology/ Technician	Mechanical Engineering	Mechanical Engineering
	API QUTE – Qualification of Ultrasonic Testing Examiners	Industrial Mechanics and Maintenance Technology	Industrial Engineering	Industrial Engineering

**Includes Level I and Level II Certificates*

Occupations	Median Wage	Annual Openings	% Growth
Extraction Workers- All Other	\$44,616	145	25%
Extraction Workers	\$34,570	1,000	7%
Drill Operators, Oil and Gas	\$52,083	925	14%

**WORK BASED LEARNING AND EXPANDED
LEARNING OPPORTUNITIES**

Exploration Activities:	Work Based Learning Activities:
Intern at an oil or gas company. American Petroleum Institute Certification	Read trade publications to understand economic and political issues

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org

The Oil and Gas Exploration and Production program of study focuses on processing, refining, and distributing petroleum and gas. It introduces CTE learners to the process of regulating the flow of oil into pipelines, controlling pumping systems, and operating and maintaining machinery to generate electric power.



The Energy Career Cluster prepares individuals for careers in the designing, planning, maintaining, generating, transmission, and distribution of traditional and alternative energy.

Successful completion of the Oil and Gas Exploration and Production program of study will fulfill requirements of the Business and Industry Endorsement or STEM endorsement if math and science requirements are met. Revised - July 2020



COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	Grade
Oil and Gas Production I/Lab	13001250 (1 credit) 13001255 (2 credits)	None	9-12
Foundations of Energy	13040503 (1 credit)	None	9-12
Oil and Gas Production II/Lab	13001260 (1 credit) 13001265 (2 credits)	PREQ: Oil and Gas Production I	10-12
Occupational Safety and Environmental Technology I	N1303680 (1 credit)	None	9-12
Oil and Gas Production III	13040500 (1 credit)	PREQ: Oil and Gas Production II	11-12
Occupational Safety and Environmental Technology II	N1303681 (1 credit)	None	9-12
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	11-12
Oil and Gas Production IV	13040501 (1 credit)	PREQ: Oil and Gas Production III	11-12
Project-Based Research	12701500 (1 credit)	None	11-12
Applied Mathematics for Technical Professionals	12701410 (1 credit)	None	11-12
Practicum in Energy	TBD	TBD	TBD

FOR ADDITIONAL INFORMATION ON THE ENERGY CAREER CLUSTER,
PLEASE CONTACT: CTE@tea.texas.gov
<https://tea.texas.gov/cte>