

2010/2011 Petroleum Technology

*This is a schedule of Continuing Education courses offered from Fall of 2010 thru Fall of 2011.
All courses are continuing education and are not for college academic credit.*

Courses are held at the Bert E. Woodruff Adult Education Center located at 220 N. Henderson Blvd., Kilgore, TX 75662.

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You may visit our website at www.kilgore.edu.

Please contact Continuing Education at (903) 983-8661 for registration.

AT-LINE GAS CHROMATOGRAPHY

Description: This 24 hour class is a thorough course in the fundamentals of at-line process or portable chromatography for field gas measurement technicians who are responsible for gas quality and/or energy measurement. This course concentrates on the subjects of natural gas properties, measurement calculations, industry standards, chromatography audit information, and gas calibration standards for the support of custody transfer gas measurement, fundamentals of installation, troubleshooting, remote telemetry and hydrocarbon. Dew Point issues are also covered. 2.4 CEUs will be awarded.

Tuition: \$900

Dates: Nov. 2-4, 2010

Apr. 4-6, 2011

Oct. 31-Nov. 2, 2011

Major topics:

- Natural Gas chemistry basics
- How to calculate BTU and energy
- Understand the governing measurement standards
- What the heating value terms mean
- How to plan for installation of the GC
- How to design efficient sampling systems
- How to calculate sample transport lag
- How to check adherence to contacts
- How to avoid audit problems
- What is Hydrocarbon Dew Point
- How to avoid Dew Point issues
- How to troubleshoot a problem GC

DRILLING OPERATIONS

Description: 16 hours of classroom study; 1.6 CEUs. This two day class covers the aspects of a typical on land drilling operation. This course is intended for the new employee just getting started in

the industry or for anyone who wants to learn about the drilling industry. Basic drilling principles, terminology and components will be discussed.

Tuition: \$500

Dates: Nov. 8-9, 2010

Mar. 21-22, 2011

Nov. 7-8, 2011

Major Topics:

- How oil & gas is formed and found
- Power and power distribution system
- The hoisting system
- The rotating system
- The circulating system
- The blowout preventer system
- Special drilling techniques
- Well completions

HYDRAULICS FOR PIPELINE OPERATIONS

Description: This 2.5 day class covers the theory of hydraulics, flow equations used to determine efficient operations, and fluid properties and a total system design of a pipeline. 2.0 CEUs will be awarded.

Tuition: \$900

Dates: Oct. 4-6, 2010

Mar. 8-10, 2011

Oct. 3-5, 2011

Major Topics:

- Fluid Properties
- Pump concepts
- Fundamental Valve concepts
- Steady State Flow
- Transient State flow
- Pumps and Pump Operation
- Station Operations

INTRODUCTION TO OIL & GAS LAW

Description: This 7 week, 21 hour course introduces the student to general concepts in oil and gas law. Topics covered include: oil and gas property interests; conservation laws; surface owners' rights; mineral interest owners' rights; the oil and gas lease and concurrent and successive ownership. This class is intended for those involved with landman work, who need to better understand the concepts behind some of the things that the oil and gas exploration companies do and those responsible for the buying and selling of real property. This class will be held on Tuesday nights from 6:30-9:30 p.m.

Prerequisite: Petroleum Landman Fundamentals

Tuition: \$550

Dates: Oct. 5-Nov. 16, 2010

Mar. 22-May 3, 2011

Sept. 20-Nov. 1, 2011

Major Topics:

- Defining the oil and gas property interests
- Defining rights under the conservation laws
- Rights in the oil and gas property interest
 - A. The surface and mineral estates
 - B. The mineral estate
 - C. Right to use surface to develop minerals
- Defining “other minerals”
- The distinction between oil and gas
- Common oil and gas property interests
- Concurrent and successive ownership
- Commonly encountered interpretive problems
- Protecting the oil and gas property interest
- The oil and gas lease
- Implied covenants
- Lease assignments

NATURAL GAS MEASUREMENT

Description: This four-day class covers the theory of natural gas, the gas laws and how to calculate volumes, and the equipment used to measure natural gas. API and GPA industry standards will be discussed. Gas Sampling, odorizing and quality determination of the gas will be covered. 2.8 CEUs will be awarded.

Tuition: \$900

Dates: Nov. 15-18, 2010 Mar 7-10, 2011 June 6-9, 2011 Nov 14-17, 2011

Major topics:

- Natural gas chemistry
- Gas laws
- Gas volume calculations
- Electronic Flow Measurement
- Gas chromatography
- Sampling & natural gas odorizing
- Turbine meters, PD meters, Ultrasonic meters, orifice meters
- Flow conditioning

OIL & GAS PRODUCTION OPERATIONS (Overview)

Description: 32 hours of classroom study; 3.2 CEUs. This four-day class covers the topics that are important for a novice to understand how oil & gas is found and how it is extracted from the ground, the various processes used to move it to storage and on to the final product. Students will receive a thorough understanding of how oil & gas is moved to a gathering facility as well as an overview of field operations from the gathering site to the plant on to the product pipeline.

Tuition: \$900

Dates: Oct. 4-8, 2010

May 2-5, 2011

Oct. 3-6, 2011

Major topics:

- Lease Operations
- Gas gathering
- Field production equipment
- Plant processing operations and equipment
- Dehydration and sweetening
- Line heaters and treaters
- Instrumentation
- Oil & gas measurement
- Valves, piping and maintenance on the pipeline

PETROLEUM FUNDAMENTALS

Description: 16 hours of classroom study; 1.6 CEUs. This two-day class covers the topics that are important for a novice to understand how oil & gas is found and how it is extracted from the ground, the various processes used to move it to storage and on to the final product. Terminology is important to be able to understand the language used in the oilfield environment. Students will receive a dictionary of terms commonly used in the petroleum industry as well as a text that covers all aspects of the fundamentals.

Tuition: \$500

Dates: Nov. 1-2, 2010

Feb. 28-Mar. 1, 2011

Jun. 20-21, 2011

Nov. 7-8, 2011

Major topics:

- How oil & gas are found (Geology and Exploration)
- How they are extracted from the ground (Drilling Operations)
- Processes used to move them to storage and on to the final product. (Production)
- Leasing aspects
- Recovery and Servicing
- Terminology used in the oilfield environment

PETROLEUM LANDMAN FUNDAMENTALS

Description: This is a 7 week, 21 hour course that will equip the student with the necessary tools to better understand the function of a landman, some of the common mistakes made and a general understanding of the legal issues of oil & gas properties in Texas. Class will be held on Tuesday nights from 6:30-9:30 p.m.

Tuition: \$550

Dates: Aug. 3-Sept. 14, 2010

Feb. 1-Mar. 15, 2011

Aug. 2-Sept 13, 2011

Major topics:

- Oil and Gas law

- Steps to running a mineral title
- Oil and Gas mineral lease
- Deed and warranty lease
- How to do a lease take off

SEISMIC STRATIGRAPHY FUNDAMENTALS (New)

Description: This 8 hours course presents the basic concepts and how to apply the Exxon methodology for seismic stratigraphy. Seismic and sequence stratigraphy is a proven breakthrough for building a stratigraphic framework from seismic and well data. This course is ideal for those who need to understand and use this technology to get stratigraphic information out of seismic data. .8 CEUs will be awarded.

Tuition: \$300

Dates: Aug. 21, 2010

Nov. 20, 2010

Major topics:

- Stratigraphic principles and concepts
- Well-to-seismic ties
- Accommodation & deposition
- Sequences and system tracts
- Seismic facies analysis

USING GEOLOGY IN THE SEARCH FOR OIL (New)

Description: This 8 hour course presents an overview of how geological and geophysical principles and methods are used to explore for new oil and gas fields. The course has been designed for geoscientists who need an overview of the “big picture” as how to apply different skills within the energy industry. .8 CEUs will be awarded.

Tuition: \$300

Dates: Aug. 20, 2010

Nov. 19, 2010

Major topics:

- The essentials for success – the main elements of a play
- Basic log correlations
- Basics of the seismic method
- Seismic-based structural analysis
- Seismic-based stratigraphy analysis