For more info about PETEX, check out our Web site at www.utexas.edu/ce/petex

PETEX
Natural Gas Measurement Courses

➤ NGM—Fundamentals
➤ NGM—Design/Application/Inspection
➤ NGM—Electronic Flow Measurement
➤ NGM—Sampling and Analysis

These courses are endorsed by the GPA and Canadian School of Hydrocarbon Measurement!

Enrollment Information
Your company is invited to participate in these training programs. For additional information, contact—

Houston Training Center
The University of Texas
2700 W. W. Thorne Blvd.
Houston, TX 77073
Tel: 800.687.7052
or 281.443.7144
FAX: 281.443.8722
Email: petexhtc@www.utexas.edu

Other PETEX Courses
Advanced Petroleum Measurement
Basic Petroleum Measurement
Completion and Workover
Economics of the Petroleum Industry—Risk and Uncertainty
Electrical Maintenance Fundamentals
Electrical Maintenance—Equipment and Application
Elementary Drilling
Elementary Electronics for Nonelectrical Personnel
Engine and Compressor Operations
Field Handling and Plant Processing of Natural Gas
Gauging, Testing, and Running of Lease Tanks
Hydraulics for Pipeline Engineers
Hydraulics for Pipeline Operators
Instruments and Controls
Introduction to Offshore Operations
Introduction to Programmable Logic Controllers
LNG—Basics of Liquefied Natural Gas
Mass Measurement of Hydrocarbon Fluids
Petroleum Fundamentals
Pipeline Technology
Production Technology
Reciprocating Compressor/Prime Mover Operations
Supervisory Control and Data Acquisition Systems (SCADA)
Valves and Actuators (Operation and Maintenance)
PETEX Natural Gas Measurement Courses

Natural Gas Measurement—Fundamentals
2.3 CEUs
Length: 3 Days
Covers the basics of physical and chemical makeup of gas mixtures, how the mixtures are affected by temperature and pressure. How to analyze and determine good measurement and how to obtain it; also covers the fundamentals of volume determination devices. Participants receive handouts and a PETEX book—*Gas and Liquid Measurement*.

UNITS OF MEASUREMENT
- Base conditions
- Standard cubic feet
- Heating value
- Mass

FUNDAMENTALS
- Natural gas chemistry
- Physical behavior

VOLUME DETERMINATIONS
- Flow meters
- Orifice meter—general
- Orifice meter—gas
- Turbine meter—gas
- Ultrasonic gas meter
- Rotary/positive displacement meter
- Coriolis mass force gas meter

Recommended For
Gas measurement technicians, analysts, engineers, and personnel who witness or audit natural gas measurement

Natural Gas Measurement—Electronic Flow Measurement
2.3 CEUs
Length: 3 Days
Covers the basics of electronic flow measurement including the installation and calibration of electronic flow devices. Provides an overview of basic electrical/electronics theory, instruction on the installation, operation, and calibration of electronic transmitters in both the classroom and practical lab exercises. The proper application of electronic flow computers including their installation, operation, and troubleshooting is addressed. The integration of electronic flow computers with SCADA applications is covered along with the various communication methods. Covers the audit trail and data integrity requirements when using electronic flow computers. Participants receive handouts and a PETEX book—*Gas and Liquid Measurement*.

BASIC ELECTRONICS/ELECTRICITY

ELECTRONIC TRANSMITTERS

EFM UTILIZING MULTIVARIABLE TRANSDUCERS

LABORATORY EXERCISES—TRANSMITTERS

APPLICATION OF FLOW COMPUTERS

AUDIT TRAIL/DATA INTEGRITY

ECONOMICS OF EFM

SCADA APPLICATIONS/COMMUNICATION METHODS

Recommended For
Gas measurement technicians, analysts, engineers, and personnel who witness or audit natural gas measurement

Natural Gas Measurement—Design/Application/Inspection, cont.
TheSE CourSeS Are endorSed by THe GAS ProCeSSorS ASSoCiATion And CAnAdiAn SCHool of HydroCArbon MeASureMenT and may assist in meeting requirements for DOT Operator Certification.