

**CENTER FOR PROFESSIONAL DEVELOPMENT****NATURAL GAS PLANT OPERATIONS**

400 Hours/12 Months/Instructor-Facilitated

Course Code: **CPD095** || Course Cost: **\$2595****OVERVIEW**

Natural gas plant operators monitor and control the systems and equipment that take gas from its natural state and convert it into a useable product. Your job is to ensure that the gas produced is free of impurities. The purified gas is then separated into products such as ethane, propane, butane, and methane. You'll also be responsible for the flow of this processed gas into the pipelines that carry it to the various industries and homes that use it for fuel. In addition, you'll make gas flow changes to the supply system to keep pace with customer demands.

Natural gas plant operators earn above-average wages and enjoy good job security and potential to advance into supervisory or management positions.

This is a user-friendly program, designed for people who have no prior exposure to technical aspects of hydrocarbons, energy, or industrial processes. No prior science or math education is necessary; the program includes all of the necessary basic science and technology elements.

**OBJECTIVES**

Upon successful completion of this program, you'll:

- Describe basic math, physics, and chemistry knowledge necessary for a gas plant operator
- Understand safety as it relates to gas plant production
- Describe basic elements of electricity
- Read technical process drawings
- Describe basic operational elements of lubrication and centrifugal pumps
- Understand how natural gas is found in nature and how gas wells are developed
- Describe how natural gas compression and refrigeration systems work
- Determine various methods used to purify natural gas

**OUTLINE**

1. Basic Hazard Communication
2. Basic Safety
3. Basic Lockout-Tagout
4. Math 1000: Basic Math 1
5. Math 2000: Basic Math 2

6. Math 2500: Basic Math 3
7. Applied Physics 1
8. Applied Physics 2
9. Applied Physics 3
10. Heat Exchangers
11. Lubrication and Bearings
12. Electrical Safety
13. Electricity for Operators and Technicians
14. Industrial Valves
15. Compressed Air
16. How to Read Process Drawings
17. Basic Process Instrumentation and Control
18. Pump Fundamentals
19. Centrifugal Pumps: Operation
20. Natural Gas 1000: An Introduction
21. Natural Gas 1500: Natural Gas Geology
22. Natural Gas 2000: Natural Gas Wells
23. Natural Gas 2500: Natural Gas Process Compressors
24. Natural Gas 2600: Natural Gas Process Refrigeration
25. Natural Gas 3000: Natural Gas Field
26. Natural Gas 4000: Natural Gas Purification Processes

### **MATERIALS INCLUDED**

To take this program, you'll need access to a computer with Internet and e-mail. No textbooks are required for this program; all your learning will take place online.

### **COMPUTER REQUIREMENTS**

This program is compatible with the Windows XP and later operating systems and IE 7 and later browsers.

## **INSTRUCTOR BIOS**

**Max Ansari**, MSEE, P. Eng., is a first-class steam engineer. He has experience in the operation of large hydrocarbon facilities, such as refineries, and the development of training systems for a multitude of large corporations engaged in complex industrial production processes. Max also has many years of experience as a professor at a community college. He's taught a multitude of programs in a number of energy fields.