EXCELSIOR COLLEGE

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CENTER FOR PROFESSIONAL DEVELOPMENT

CHEMICAL PLANT OPERATIONS

400 Hours/12 Months/Instructor-Facilitated
Course Code: **CPD048** || Course Cost: **$2595**

OVERVIEW

In the more than 15,000 chemical plants in the U.S., chemical plant operators play a significant and valuable role. Responsible for maintaining the smooth operation of all systems, chemical plant operators must be able to think on their feet, problem-solve, and communicate effectively with all levels of personnel, from line operators to senior managers. Given the hazardous quality of many chemicals, chemical plant operators must be skilled in all aspects of on-the-job safety and security.

There is currently a great need for trained chemical plant operators. This fully comprehensive online program in Chemical Plant Operations will help you to gain entry into this well-paying career that can serve as a stepping stone to positions in management.

Unlike similar training programs, this program goes beyond the basics of monitoring instrumentation and equipment and teaches you how to detect potential problems and take action. You will learn how to problem-solve without interrupting systems operations, and you will study all aspects of safety and security. Upon program completion, you will earn a certificate from Excelsior College that will help open doors in a very stable work environment.

OBJECTIVES

Upon completion of this course, you will know how to:

- Operate a chemical plant with safety as the primary consideration.
- Monitor instruments and the operation of equipment.
- Make adjustments to keep system process variables such as flows, temperatures, and pressures within acceptable ranges.
- Detect potential and actual problems and take corrective action to prevent the interruption of system operations.
- Analyze operational trends and take corrective actions.
- Use standard operating procedures to start/stop production equipment.
- Maintain communication with other operators, maintenance, and management.

OUTLINE

- Basic Safety
- Basic Hazard Communication
- Basic Lockout-Tagout

- Math 1000: Basic Math 1
- Math 2000: Basic Math 2
- Math 2500: Basic Math 3
- Applied Physics 1
- Applied Physics 2
- Applied Physics 3
- Heat Exchangers
- Lubrication and Bearings
- Electrical Safety
- Electricity for Operators and Technicians
- Industrial Valves
- Compressed Air
- How to Read Process Drawings
- Basic Process Instrumentation and Control
- Pump Fundamentals
- Centrifugal Pumps – Operation
- Chemistry Fundamentals
- Chemical Reactions
- Chemical Reactors

COMPUTER REQUIREMENTS

- PC - Windows XP or later
- Internet connection (high-speed recommended) and a working e-mail account

INSTRUCTOR BIO

Dr. John Galiotos is the on-line instructor for this course. He has extensive experience as professor and chair for Process Technology department at one of the largest community colleges in the country.