Introduction to Chemical Manufacturing
Processes and Process Control

Course Objectives

1. Define a process.
2. Distinguish between a batch process and a continuous process.
3. Define process variable.
4. Define process control.
5. Explain the operation of a simple closed control loop, including its key components.
6. List the benefits of feedback control.
7. Describe the difference between local/field and remote control
8. Relate target values, control limits, operating parameters and set points to process control.
9. Explain the purpose of a distributed control system (DCS).
10. List the elements that are incorporated in process design.

Key Terms (Define the following)

process - _____

_____

batch process - _____

_____

continuous process - _____

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parameter - _____

_____

process variable - _____

_____

set point - _____

_____

controller - _____

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Distributed Control System (DCS) - _____

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Questions

1. List the components of a process.

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2. List the order of events in a simple control loop.

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3. A controller compares the current reading to the _____ .

4. What are some advantages of an automated control loop?

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5. List two functions of a DCS.

1) _____

2) _____

6. List the elements that are incorporated in process design. Give an example of a process design which addresses each element.