

Bossier Parish Community College Master Syllabus

Course Prefix and Number: OGPT 226

Credits: 3-3-0

Course Title: Process Technology II: Systems

Course Prerequisite: OGPT 225

Textbook(s): NONE

Course Description: This course is a study of major systems used within the process technology industry. The course includes process drawings, process controls, energy/material balances, utility systems, equipment operations and interaction, and troubleshooting related to process equipment while considering environmental, health, and safety issues related to common process equipment.

Learning Outcomes:

At the end of the course, the student will:

- A. utilize process drawings, process controls, and energy/material balances associated with process systems;
- B. identify and explain the combinations of equipment into typical unit operations (reaction and separation systems) and the relationships among the different pieces of the equipment;
- C. identify and explain the combinations of equipment into common utility systems (cooling, heating, gas, etc.) and how they support the various unit operations within a plant;
- D. discuss the specific safety, health, and environmental concerns associated with process systems;
- E. demonstrate an understanding of the operator's responsibilities for the safe and efficient operation of systems, including the interaction among the various pieces of equipment within these systems.
- F. demonstrate an understanding of the procedures related to startup, normal operating conditions, routine maintenance and shutdown.

To achieve the learning outcomes, the student will:

(The letter designations at the end of each statement refer to the learning outcome(s).)

- 1. develop basic understanding of process drawings, process controls, and energy/material balances associated with process systems; (A)
- 2. develop basic ability to identify and explain the combinations of equipment into typical unit operations (reaction and separation systems) and the relationships among the different pieces of the equipment; (B)
- 3. develop basic ability to identify and explain the combinations of equipment into common utility systems (cooling, heating, gas, etc.) and how they support the various unit operations within a plant; (C)
- 4. develop basic understanding of specific safety, health, and environmental concerns associated with process systems; (D)

5. develop basic understanding of the operator's responsibilities for the safe and efficient operation of systems, including the interaction among the various pieces of equipment within these systems. (E)
6. Describe the major steps performed during startup (initial commissioning, routine startup, and startup following a turnaround) of a process to meet normal operating conditions, including safety and environmental regulations. (F)
9. Given an abnormal situation, identify appropriate corrective actions to return the process to either a steady-state operation or perform a safe emergency shutdown. (F)
10. Describe the major steps performed during normal shutdown activities, including meeting safety and environmental regulations. (F)

Revised on 3/13/2017

Course Requirements: Scientific Calculator

Course Grading Scale:

90 – 100 = A
80 – 89 = B
70 – 79 = C
60 – 69 = D
0 – 59 = F

Attendance Policy: The college attendance policy is available at
<http://www.bpcc.edu/catalog/current/academicpolicies.html>

Course Fees: (if applicable)

Nondiscrimination Statement: Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

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