

Bossier Parish Community College

Master Syllabus

Course Prefix and Number: OGPT 227

Credits: 3-3-0

Course Title: Process Technology III: Operations

Course Prerequisite: OGPT 225

Textbook(s): NAPTA. Process Technology Equipment. Pearson Education, 2018. ISBN-13: 978-0-13-700410-2

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. describe startup procedures and plant operations under normal operating conditions using process diagrams;
- B. describe major steps performed during a startup (initial commissioning, routine startup, and startup following a turnaround) of a process to meet normal operating conditions, including safety and environmental regulations;
- C. demonstrate roles and responsibilities during normal operating activities (shift change, monitoring controls and equipment, sampling, communications, etc.);
- D. identify appropriate corrective actions to return the process to either steady-state operation or perform a safe emergency shutdown given an abnormal situation;
- E. describe the major steps performed during normal shutdown activities, including meeting safety and environmental regulations;
- F. describe steps taken to safely prepare equipment for both routine and shutdown maintenance activities (e.g. isolation, decontamination, permitting) and then returning equipment to service.

Course Objectives:

To achieve the learning outcomes, the student will:

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

1. Demonstrate startup procedures and plant operations under normal operating conditions using process diagrams; (A)
2. Identify 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. (B)
3. Recognize the roles and responsibilities during normal operating activities (shift change, monitoring controls and equipment, sampling, communications, etc.); (C)
4. Identify appropriate corrective actions to return the process to either a steady-state operation or perform a safe emergency shutdown in the event of an abnormal situation. (D)

5. Explain the major steps performed during normal shutdown activities, including meeting safety and environmental regulations. (E)
6. Demonstrate steps taken to safely prepare equipment for both routine and shutdown maintenance activities (e.g. isolation, decontamination, permitting) and then returning equipment to service.

Course Requirements: Complete all homework assignments, lectures, tests, and final exam.

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: None

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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