

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: OGPT 203

Credits: 4-3-3

Course Title: Oil and Gas Instrumentation and Lab

Course Prerequisite: OGPT 131 or OGPT 102

Textbook(s): NAPTA. Instrumentation (2nd Edition), Pearson Education.
ISBN: 978-0-13-700413-3

Course Description: A study of the selection, application, calibration, and usage of modern measurement and instrumentation systems, terminology, process variables, and control loops as commonly used in an oil and gas environment. Measurement and transducer types, signal conditioning, recording, and analysis are also covered.

Learning Outcomes:

At the end of this course, the student will:

- A. understand the evolution of instrumentation, process variables, measuring devices, control loops, controllers and identify different applications for each;
- B. identify commonly used instruments and understand their role in modern process control today;
- C. demonstrate the calculation process for settings and set points;
- D. identify devices and demonstrate basic skills required to troubleshoot an issue within the process.

To achieve the learning outcomes, the student will or will be able to:

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

1. understand the evolution of instrumentation in process industries from earlier versions through the many technological advances. (A)
2. identify process variables, elements and instruments related to pressure, temperature, level, flow and analytical (A)
3. identify measuring devices that measure vibration and speed applications. (B)
4. identify control loops as related to simple loop theory, primary sensors, transmitters, final control element, control valves and regulators. (B)
5. define instrument drawings; (B)
6. demonstrate basic troubleshooting techniques; (B)

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

Course Grading Scale:

90% to 100% = A
80% to < 90% = B
70% to < 80% = C
60% to < 70% = D
< 60% = F

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

Course Fees: This course is accompanied with an additional fee for supplemental materials and a lab fee.

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.

Title VI, Section 504, and ADA Coordinator

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