

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): Kirk/Weedon/Kirk. Instrumentation and Process Control, 6th edition. American Technical Publishers. ISBN: 9780826934420

Workbook: Weedon, Thomas A. Instrumentation and Process Control - Workbook, 6th edition. American Technical Publishers. ISBN: 9780826934437. Additional handout materials will be utilized in the course.

Course Description: A study of the selection, application, calibration, and usage of modern measurement and instrumentation systems, terminology, process variables, and control loops as 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. become familiar with process variables and identify different methods of measurement for each;
- B. identify commonly used instruments and understand their role in modern process control today;
- C. become familiar with the calculation process for settings and set points;
- D. be able to identify those devices on documentation; and
- E. have the basic background to able 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 indirect versus direct measurement; (A)
- 2. understand and describe the basic components of a control loop; (A)
- 3. describe the basic instrumentation used in modern process control; (B)
- 4. identify the basic instruments used with temperature, pressure, levels, flow, and analytical applications; (C)
- 5. understand transmitters; (B)
- 6. understand controllers; (B)
- 7. understand final control elements; (B)
- 8. understand instrument drawings; (D)
- 9. practice selecting optimum transducer, amplifier, recording, and readout devices; (B) and
- 10. understand basic troubleshooting techniques; (E)

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 non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams, and/or clinical fees.

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.

COORDINATOR FOR SECTION 504 AND ADA

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