

Bossier Parish Community College  
Master Syllabus

**Course Prefix and Number:** OGPT 103

**Credit Hours:** 3-3-0

**Course Title:** Drilling Complex Wells

**Prerequisites:** OGPT 101

**Prerequisites or Corequisites:** MATH 102 and OGPT 153 or TEED 153

**Textbook(s):** Deveraux, Steve. Drilling Technology in Nontechnical Language, 2<sup>nd</sup> Edition. PennWell Corp., 1999. ISBN: 9781593702649.

**Course Description:** This course is a study of practices and procedures involved in complex drilling operations. The course is also an introduction to the fracturing process, including its mechanics and evaluation of success. Practice is provided in volume calculations, hydrostatic pressures, formations pressures, and analyzing problems in downhole drilling operations.

**Learning Outcomes:**

At the end of this course, the student will:

- A. understand geology related to drilling processes;
- B. understand the fundamentals of exploration, including technical data, prospect/leasing, and other exploration techniques;
- C. understand drilling phases, design, techniques, operations;
- D. understand rig classification and associated equipment;
- E. understand the function of drilling fluid, classification, design, casing and cementing;
- F. understand well evaluation techniques, including sampling and logging; and
- G. understand well control types and equipment;

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. develop understanding of geology related to drilling processes; (A)
- 2. develop fundamentals related to oil and gas exploration techniques, including types of data, leasing, and other techniques; (B)
- 3. develop basic understanding of drilling design, various drilling phases, and related drilling operations; (C)
- 4. develop understanding of rig classification and associated equipment; (D)
- 5. develop understanding of drilling equipment, fluid, fluid design and classification; (E)
- 6. develop basic understanding of the importance and evaluation of casing and cementing processes; (E)
- 7. develop basic understanding of well evaluation techniques, including sampling, testing, and logging; (F) and
- 8. develop fundamentals of well control, including types and equipment necessary. (G)

**Course Requirements:** Textbook, Scientific Calculator

**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:** N/A

**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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