

PNGE 710 ADVANCED DRILLING ENGINEERING

Outline

Instructor: H. Ilkin Bilgesu¹
Office: MER 345C
Office Hours: Open door or by appointment (304-293-7682)
Class Schedule: T Th 2:00 p.m. - 3:15 p.m. MER 107 and MER 243

Prerequisites: PNGE 310 Drilling Engineering.

Course Objectives: To acquaint the students with the advances and new techniques, equipment, and engineering design calculations used in the oil and natural gas well drilling operations.

Examination Schedule: One Mid-Term and one Optional Final exam

Grading Policy:

Homework and Assignments	30%
Projects	40%
Exams	30%

The grades for late homework and project will be deducted by 20 points for the first day and 10 points for each additional calendar day.

Grades:

90 and above	A
80-89	B
70-79	C
60-69	D
59 and below	F

Attendance: Students are expected to attend all scheduled classes.

Textbook : Advanced Oil Well Drilling Engineering Handbook, by Bill Mitchell, Mitchell Engineering, Tenth Edition, (1995). (Optional)

Tentative Course Outline

- Introduction
- Tubular Design
- Drilling Optimization Methods
- Kick Removal
- Rig Hydraulics
- Directional Drilling
- Horizontal Drilling
- Bottomhole Assemblies
- Air Drilling
- Coiled Tubing Drilling
- Logging While Drilling (LWD)
- Fishing

¹ West Virginia University is committed to social justice. The instructor of this course concurs with West Virginia University's commitment and expects to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with Disability Services (304-293-6700).