Instructor: Jerome Schubert  
Office: Room 501-K, Richardson Building  
Office Hours: M and W; 10:00 – 11:00 a.m.  
Office Phone: 979-862-1195, (E-Mail) jerome.schubert@pe.tamu.edu  

Catalogue Description: 
Introduction to drilling systems; wellbore hydraulics; casing design; identification and solution of drilling problems; well cementing; drilling of directional and horizontal wells; wellbore surveying; abnormal pore pressure; fracture gradients; well control; offshore drilling; underbalanced drilling.


Class Schedule: 
Lecture: TTr, 11:10 – 12:25 p.m., room 208 RICH

Basis for grade:
Homework ........................................................................................... 20%
Exam 1 ................................................................................................. 20%
Exam 2 ................................................................................................. 20%
Exam 3...................................................................................................20%
Project ..................................................................................................20%
100%

Grading Policy:
>89.5 = A
79.5 – 89.4999 = B
69.5 – 79.4555 = C
59.5 – 69.4999 = D
<59.5 = F

Schedule:
Week 1: Introduction, the Rotary Drilling Process, the Rig, Drilling Equipment, Drilling Fluids
Week 2: Drilling Problems, Wellbore Hydraulics, Pressure Drop Calculations
Week 3: Casing Design Procedures, Burst, Collapse, Tension
Week 4: Abnormal Pore Pressure Prediction, Fracture Gradients
Week 5: Abnormal Pressure, Well Control, Exam 1
Week 7: Well Control, cont’d, Kick Tolerance
Week 8: Cements and Cementing, Primary & Secondary Cementing
Week 9: Squeeze Operations, Cement Plugs
Week 10: Directional Drilling, Wellbore Surveying Techniques, Exam 2
Week 11: Horizontal Drilling Technology, Coiled Tubing Drilling, Buckling, Torque and Drag
Week 12: Offshore Drilling
Week 13: Deep-Water Drilling, Dual-Gradient Drilling
Week 14: Underbalanced Drilling, Exam 3
Week 15: Underbalanced Drilling
Projects due: Last Day of Classes, 5 p.m. (Rich 501K)

References:
- Applied Drilling Engineering, by Bourgoyne, Chenevert, Milheim, Young, SPE Textbook Series, 1991
- IADC Deepwater Well Control Guidelines, Published by the International Association of Drilling Contractors, Houston, TX, 1998.

Americans with Disabilities Act (ADA) Policy Statement
The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University Curriculum Committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information.

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of
their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.

*Academic Integrity Statement*

“An Aggie does not lie, cheat, or steal or tolerate those who do.”

All syllabi shall contain a section that states the Aggie Honor Code and refers the student to the Honor Council Rules and Procedures on the web

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