

Fall 2019

PTE 502 Advanced Reservoir Characterization

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Date							
26-Aug	Subsurfcae Engineering : Definitions- Patterns- Tools and Techniques						
	for Reservoir Characterization						
	Petroleum Systems-Major Petroleum Systsems of The World-Tools of						
	Reservoir Characterization						
9-Sep	Depositional Environments and Models;Physics of Sedimentation						
	Facies Modesl, Sequence Stratigraphy; Fluvial, Eolian, and Non Deltaic						
	Shallow Marine Deposits						
16-Sep	Geologic Control on Reservoir Quality-Petrophysics						
23-Sep	Production Geology						
27-Sep	Make Up Lecture- for Sept 29th ATCE Meeting Deltaic and Deep water Deposits						
30-Sep	SPE ATCE	no class					
7-Oct	First Exam						
14-Oct	Flow units; Structural Control; Sequence Stratigraphy-Basin Modeling						
21-Oct	Carbonates and Evaporite Systems and Fractured Reservoirs						
28-Oct	Rock Mechanics, Stress Mapping and Analysis; Geophysical Methods						
4-Nov	Characterization and Flow Systems in Fractured and Faulted Structures						
11-Nov	Basinal Models/Geochemical Methods/Uncertainty in Reservoir Description						
18-Nov	2nd Exam						
25-Nov	Forward and Inverse Methods for Reservoir Characterization;						
	3D Geologic Modeling Methods						
2-Dec	Unconventional Reservoirs- Geologic Control						
9-Dec	Project Presentation						
16-Dec	Final Exam 2-4 PM						

HW	20%
First Exam	25%
Second Exam	25%
Final Exam	25%
Project	5%
Toal	100%

Reference Books: available from USC elibrary

Fundamentals of basin and petroleum system modeling

Seismic stratigraphy and depositional facies models

Stratigraphic reservoir characterization for petroleum geologists