# Fall Semester 2015:  PTE 502: Advanced Reservoir Characterization

**Petroleum Engr. Program  Mork Family Department of Chemical Eng. and Materials Science**  
**University of Southern California**  

**Mondays 3:30-6:10 PM OHE 136**

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**Fall Semester 2015**

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**TA: Qianru Qi**

**Aug. 24- 31**  
Petroleum Systems-Geological Control on Reservoir Systems- Case Studies Depositional Models

**7-Sep**  
Labor Day Holiday

**The Class will not be held at regular time but a make-up session will be arranged**

**14-Sep**  
Depositional Environments/Continental, Transitional,

**21-Sep**  
Depositional Environments/ Marine, Evaporates, Glacial

**ATCE Meeting- No class on Sept 28th attend make up session on Sept 25th**

**28-Sep**

**25-Sep**  
Facies Interpretation/Facies and Lithology/Sequence Stratigraphy

**5-Oct**  
Tools of Reservoir Characterization-Review of Petrophysics

**12-Oct**  
Introduction-Uncertainty in Reservoir Description/Geomodeling

**19-Oct**  
Flow units/Reservoir Rock Properties/Structural control on Heterogeneity

**26-Oct**  
Midterm Exam

**2-Nov**  
Review of Basin Modeling/Tectonic History/ Compartmentalized Reservoirs

**9-Nov**  
Seismic Data Processing and Imaging, Analysis of Production, Tracers and Well Test data for Geological Modeling

**16-Nov**  
Stress Impact/ Fracture models/Carbonate, Chalk and Chert Reservoir Systems

**23-Nov**  
Integration of Geology, Petrophysics, Geophysics, and Reservoir Engineering for Reservoir Characterization Studies

**30-Nov**  
Project Presentation

**14-Dec**  
Final Exam 2-4 PM

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**References**

**Grading System**

**By Harold G. Reading - Sedimentary Environments: Processes, Facies and Stratigraphy: Third Edition**  
Paperback – January 1, 1997 Wiley and Sons

**HW**  
20%

**Mid Term**  
30

**Project**  
10

**Final Exam**  
40

**100%**