

Spring 2021

**PTE 517 Dr. Ershaghi [ershaghi@usc.edu](mailto:ershaghi@usc.edu) 2-4:40 Thursdays**

## **Testing of wells and Aquifers**

<b>Date</b>	<b>Topic</b>
21-Jan	Introduction to the Well Testing Concepts
28-Jan	Solution to the Diffusivity Equation
4-Jan	Superposition in Time and Space
11-Feb	Pressure Buildup, Drawdown and Formation Damage
18-Feb	Layered Composite and Faulted Reservoirs
25-Feb	<b>First Exam</b>
4-March	Gas Well Testing/Isochronal Tests
11-March	Naturally Fractured Reservoirs -Hydraulically Fractured Wells
18- March	Horizontal Wells/Tight Sands/Unconventional Reservoirs
25-March	Interference and Pulse Tests/Ground Water Pressure Testing
1-Apr	<b>Second Exam</b>
8-Apr	Injection Well Testing/DST/Pumping Wells
15-Apr	Convolution/ Deconvolution
22-Apr	Numerical Well Te4sting/ Computer Aided Methods/Use of Artificial Intelligence
29-Apr	Project Presentation
6-May	<b>Final Exam 2-4 PM</b>

### **Grading**

HW 20% Exams 25% each Project 5 % Reading materials including book chapters will be assigned as supplemental references.