

PTE 517

Spring Semester	2022	
Dr. Ershaghi	Petroleum Engr, Program- Mork Family Department -University of Southern California ershaghi@usc.edu	
Thursdays	2:00-4:40 PM	
	13-Jan	Basic Concepts-Operational Aspects-flow Equation
	20-Jan	Forward Methods/Single Phase Flow Models/Boundary Effects
	27-Jan	Wellbore and Near Wellbore Effects
	3-Feb	Pressure Buildup and Drawdown tests and Reservoir Limit Tests
	10-Feb	First Exam
	17-Feb	Diagnostic Plots-Computer Aided Solution/Multi Phase Solution
	24-Feb	Multi layered/Composite/Multiple Well test/pulse and interference tests
	3-Mar	Fractured Reservoirs
	10-Mar	Heterogeneity and Anisotropy Determination
	17-Mar	Spring Break- No Class
	24-Mar	Second Exam
	31-Mar	Horizontal Wells/Injection Well Testing
	7-Apr	Gas Wells Testing/Unconventional Reservoirs/Minifrac tests
	14-Apr	Measurement systems/Test Design/DST/Pumping Wells
	21-Apr	Aquifer Tests/Numerical Well Testing/Convolution/Deconvolution/Trap
	28-Apr	Project Presentations
	5-May	Final Exam- 2-4 PM
Course Grade		
	Weekly Homework	15
	Exam 1	25
	Exam 2	25
	Final Exam	25
	Project	10

During the semester technical papers will be assigned for reading and analysis purposes

Books

text

Pressure Buildup and Flow Tests in Wells

C.S. Matthews and D. G. Russell
 163 pp.; Softcover
 SPE Monograph Series Vol. 1
 ISBN: 978-0-89520-200-0

text

Reference

Pressure Transient Testing

John Lee, John B. Rollins and John P. Spivey
 376 pp.; Softcover
 SPE Textbook Series, Vol. 9
 ISBN: 978-1-55563-099-7

Transient Well Testing

Medhat M. Kamal
 850 pp; Softcover
 Monograph Series Vol. 23
 ISBN: 978-1-55563-141-3
 Society of Petroleum Engineers