CE457 - Spring 2015
Reinforced Concrete Design

COURSE OUTLINE

WEEK | CHAPTERS  | TOPICS                                      
-----|-----------|---------------------------------------------
1/13,15 | 1,2       | Introduction, Flexural Analysis of Beams    
1/20,22* | 3         | Strength Analysis of Beam, ACI Code        
1/27,29 | 4,5       | Rectangular Beams, One-Way Slabs, T-Beams   
2/3*,5  | 5,6       | Doubly Reinforced Beams, Serviceability    
2/10,12 | 6,7       | Bond, Development Lengths, and Splices     
2/17,19**| 8         | Shear and Diagonal Tension                  
2/24,26 | 9,10      | Columns, Short Columns, Axial Load and Bending  
3/3,5* | 10,11     | Slender Columns                             
3/10,12 | 12        | Footings                                    
3/24,26*| 13        | retaining Walls                            
3/31,4/2| 14,15     | Continuously Reinforced Concrete, Torsion   
4/7**,9 | 16        | Two-Way Slabs (Direct Design method)        
4/14,16 | 17,18     | Two-Way Slabs (Equivalent Frame method), Walls 
4/21,23*| 19        | Prestressed Concrete                        
4/28,30 | 20        | Reinforced Concrete Masonry                 

* ⇒ Quiz on that day (1/22, 2/3, 3/5, 3/26, 4/23).
** ⇒ Midterm on that day (2/19, 4/7).

Final Examination – Tuesday, May 12, 2015, 8-10am.

Grading Policy:
5 equally weighted quizzes (5% each) 25%
3 equally weighted examinations (20% each) 60%
Written homework and computer assignments 15%

Reference Textbooks:

Course Website: http://www-classes.usc.edu/engr/ce/457