

**UNIVERSITY OF SOUTHERN CALIFORNIA**  
**Sonny Astani Department of Civil and Environmental Engineering**

FALL 2014

**CE 541a                      DYNAMICS OF STRUCTURES**

Instructor:                      Sami F. Masri  
KAP 206A; Telephone: (213) 740-0602, 740-0603  
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Office Hours:                      Tuesday/Thursday 2:00 - 4:00 pm

Teaching Assistant:              Preetham Aghalaya Manjunatha; KAP 239  
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T.A. Office Hours:              Monday: 2:00-5:00 pm; Wednesday: 2:00-5:00 pm; Thursday: 4:00-5:00 pm

Class No.                              29779R, 29780D

Class time & Place:              Monday 6:40 - 9:20 pm; Room: OHE 100C

Textbook:                              “Fundamentals of Vibrations,” by L. Meirovitch (Waveland Press), 2010  
“Mathematica Navigator,” (3rd Edition) by Heikki Ruskeepaa, Academic Press, 2009

Prerequisite:                              (Graduate Standing)

Drop Dates:                              12-SEP-2014 without “W”; 14-NOV-2014 with “W”

Final Exam:                              Monday, 08 December 2014, 7:00-9:00 pm

Grades:                                      Homework/Midterm/Final: 20%/30%/50%

Remarks:                              Weekly assigned homework problems

**Late Homework will not be accepted.**  
**No make-up on any examinations.**

**COURSE OUTLINE**

1. Single-Degree-of-Freedom Systems
2. Systems With Several Degrees-of-Freedom
3. Energy Methods
4. Elements of Analytical Dynamics
5. Vibration of Continuous Systems (Exact Methods)
6. Vibration of Continuous Systems (Approximate Methods)
7. Computational Techniques