

**CE207L
Spring 2016**

Introduction to Design of Structural Systems

Prof. Navid Nastar
nastar@usc.edu

Professor: Navid Nastar, Ph.D., P.E., S.E. (nastar@usc.edu)
Office: KAP 230A

TA/Lab Instructor: TBA
Office: TBA
Office Hours: TBA

Class Website:

Blackboard (<https://blackboard.usc.edu/>) is used as the main source of communication between the instructor and students. Class material including announcements, notes, handouts, assignments, solutions, lab material, etc. will be available on Blackboard during the semester. Students are responsible for downloading the material in a timely manner and printing their own hardcopies if desired. Students are expected to visit the class Blackboard site frequently for updates.

Textbook:

Main text (mandatory):

“Principles of Structural Design; Wood, Steel, and Concrete”. Second Edition. Ram Gupta. CRC Press (ISBN 978-1-4665-5231-9).

Optional text:

"Simplified Engineering for Architects and Builders". James Ambrose, and Patrick Tripeny. John Wiley & Sons, Inc.

Grading:

Breakdown of the course final grade is as follows:

15%	Lab attendance and performance
20%	Assignments and project
30%	Midterm exam
35%	Final exam

	<u>Location</u>	<u>Time</u>
Lecture	THH 208	Monday 5:00-7:20 PM
Lab	TBD	Tuesday 2:00-3:20 PM
	SAL 127	Wednesday 5:00-6:20 PM

**CE207L
Spring 2016**

Introduction to Design of Structural Systems

Prof. Navid Nastar
nastar@usc.edu

CLASS SCHEDULE

Note: The following schedule is tentative and is subject to change during the semester.

<u>Week</u>	<u>Date</u>	<u>Topic</u>	<u>Assignment (tentative)</u>	<u>Reading</u>
1	Jan. 11	Introduction, Structural Engineering Learning from structural failures		Class handouts
2	18	No Class (MLK Day, University Holiday)		
3	25	Statics / ASD / LRFD Shear and bending moment diagrams	HW#1	Chapter 1 Class handouts
4	Feb. 1	Loads and framing systems, dead and live loads	HW#2	Chapters 1, 2 Class handouts
5	8	Introduction to bending and shear stresses Timber design and timber framing systems	HW#3	Chapters 6, 7 Class handouts
6	15	No Class (Presidents' Day, University Holiday)		
7	22	Timber beams, timber columns/posts	HW#4	Chapters 6, 7 Class handouts
8	29	Steel design and steel framing systems Review	HW#5	Chapters 9, 11 Class handouts
9	Mar. 7	Midterm exam	HW#6	
10	14	No Class (Spring Recess)		
11	21	Steel beams, steel columns	HW#7	Chapter 10 Class handouts
12	28	Concrete design and concrete framing systems	HW#8	Chapter 14 Class handouts
13	Apr. 4	Concrete beams, concrete slabs	HW#9	Chapter 14 Class handouts
14	11	Lateral forces and lateral force resisting systems (LFRS) Wind forces and introduction to wind design	HW#10	Chapter 4 Class Handouts
15	18	Seismic forces and LFRS, seismic design	HW#11	Chapter 5 Class handouts
16	25	Seismic forces for multi-story buildings High-rise structural systems	HW#12	Chapter 5 Class handouts
17	May 2	No Class (Study Days)	Design Project	
18	9	Final Exam Monday 4:30-6:30 p.m. Please note the exam start time of 4:30 p.m. (not 5 p.m.!)		

**CE207L
Spring 2016**

Introduction to Design of Structural Systems

Prof. Navid Nastar
nastar@usc.edu

Statement for Return of Course Assignments:

Returned paperwork, unclaimed by a student, will be discarded after 4 weeks and hence will not be available should a grade appeal be pursued following receipt of his/her grade.

Statement for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to the TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. [Website for DSP](#) and contact information: (213) 740-0776 (Phone), (213) 740-6948 (TDD only), (213) 740-8216 (FAX) ability@usc.edu.

Statement on Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. *Scampus*, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: <http://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.