

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

TA/Lab Instructor: Amit Jain (jain651@usc.edu)
Office: KAP 225
Office Hours: Monday 1:00-2:30 PM ; Wednesday 1:00-2:30 PM

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 needed. 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	KAP 163	Monday 5:00-7:20 PM
Lab	SAL 109	Tuesday 2:00-3:20 PM
	SAL 127	Thursday 6:00-7:20 PM

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. 8	Introduction, Structural Engineering Learning from structural failures		Class handouts
2	15	No Class (MLK Day, University Holiday)		
3	22	Statics / ASD / LRFD Shear and bending moment diagrams	HW#1	Chapter 1 Class handouts
4	29	Loads and framing systems, dead and live loads	HW#2	Chapters 1, 2 Class handouts
5	Feb. 5	Introduction to bending and shear stresses Timber design and timber framing systems	HW#3	Chapters 6, 7 Class handouts
6	12	Timber beams, timber columns/posts	HW#4	Chapters 6, 7 Class handouts
7	19	No Class (Presidents' Day, University Holiday)		
8	26	Steel design and steel framing systems Review	HW#5	Chapters 9, 11 Class handouts
9	Mar. 5	Midterm exam	HW#6	
10	12	No Class (Spring Recess)		
11	19	Steel beams, steel columns	HW#7	Chapter 10 Class handouts
12	26	Concrete design and concrete framing systems	HW#8	Chapter 14 Class handouts
13	Apr. 2	Concrete beams, concrete slabs	HW#9	Chapter 14 Class handouts
14	9	Lateral forces and lateral force resisting systems (LFRS) Wind forces and introduction to wind design	HW#10	Chapter 4 Class Handouts
15	16	Seismic forces and LFRS, seismic design	HW#11	Chapter 5 Class handouts
16	23	Seismic forces for multi-story buildings High-rise structural systems	HW#12	Chapter 5 Class handouts
17	30	No Class (Study Days)	Design Project	
18	May 7	Final Exam Monday 4:30-6:30 p.m. Please note the exam start time of 4:30 p.m. (not 5 p.m.!)		

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 the student's 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 and Conduct

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 University Student Conduct Code (see University Governance, Section 11.00), while the recommended sanctions are located in Appendix A.

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Support Systems

Student Counseling Services (SCS) – (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. engemannshc.usc.edu/counseling

National Suicide Prevention Lifeline – 1 (800) 273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. engemannshc.usc.edu/rsvp

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: sarc.usc.edu

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. equity.usc.edu

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. studentaffairs.usc.edu/bias-assessment-response-support

The Office of Disability Services and Programs

Provides certification for students with disabilities and helps arrange relevant accommodations. dsp.usc.edu

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. studentaffairs.usc.edu/ssa

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. diversity.usc.edu

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. emergency.usc.edu

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime.

Provides overall safety to USC community. dps.usc.edu