CE538
Spring 2013

Prestressed Concrete

Prof. Navid Nastar
nastar@usc.edu

Professor: Navid Nastar, PhD, PE, SE (nastar@usc.edu)
Office: KAP 230A

TA: TBA

Class Website:

Blackboard (https://blackboard.usc.edu/) is used as the main source of communication between instructors and students. Class material including announcements, notes, handouts, assignments, solutions, 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.

Text:

Main text (mandatory):

> "Prestressed Concrete, A Fundamental Approach". Edward G. Nawy. 5th Edition Update ACI, AASHTO, IBC 2009 Codes Version. Prentice Hall.

Optional:

> ACI 318-08: "Building Code Requirements for Structural Concrete and Commentary". 2008. American Concrete Institute.

Grading:

Breakdown of the course final grade is as follows:

25%	HW assignments and projects
35%	Midterm exam
40%	Final exam

	Location	**Time**
Lecture	KAP 165	Thursday 6:30-9:10 PM

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CLASS SCHEDULE

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

Week	Date		Topic
1	Jan.	17	Introduction, Basic concepts (Chapter 1)
2		24	Materials and systems for prestressing (Chapter 2)
3		31	Partial loss of prestress (Chapter 3)
4	Feb.	7	Flexural design of prestressed concrete elements (Chapter 4)
5		14	Flexural design of prestressed concrete elements (cont'd)
6		21	Flexural design of prestressed concrete elements (cont'd)
7		28	Flexural design of prestressed concrete elements (cont'd) Review
8	**Mar.**	**7**	**Midterm exam**
9		14	Shear and torsional strength design (Chapter 5)
10		21	No Class (Spring Recess)
11		28	Indeterminate prestressed concrete structures (Chapter 6)
12	Apr.	4	Indeterminate prestressed concrete structures (cont'd)
13		11	Camber, deflection, and crack control (Chapter 7)
14		18	Camber, deflection, and crack control (cont'd) Two-way prestressed concrete floor systems (Chapter 9)
15		25	Two-way prestressed concrete floor systems (cont'd)
16	May	2	Advanced and special topics Review
17		**9**	**Final Exam Wednesday 7:00-9:00 p.m.**

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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. The phone number for DSP is (213) 740-0776.

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/.