UNIVERSITY OF SOUTHERN CALIFORNIA

AME 204, Strength of Materials

Spring 2016

Time and Location:	MW 12:00 PM to 1:20 PM	MHP 106 (Section 2, 28725)
	MW 2:00 PM to 3:20 PM	MHP 106 (Section 1, 28724)

Instructor: Babak Boloury
bboloury@hotmail.com (preferred) or boloury@usc.edu

Office Hours: MW 8:00 AM to 9:00 AM,
VHE M20

Web site: http://blackboard.usc.edu

TA: 1- Luiz Toledo (ltoledo@usc.edu)
VHE 202
Check Blackboard Contact page for updated office hours

2- Jonathan Gross (grossjr@usc.edu)
VHE 202
Check Blackboard Contact page for updated office hours

Textbook: Ferdinand P. Beer; J. E. Russell Johnston; John T. DeWolf, and David F. Mazurek, Mechanics of Materials, McGraw-Hill, 7th edition, 2014

Pre-requisites: AME 201 or CE 205 (Statics), Grade of C- or better

Grading:

Homework:	20%
2 Midterm Exams:	25% each
Final Exam:	30%

Homeworks will be collected and graded randomly. Late homework will not be accepted.

The midterm exams are at the end of chapters 3, and 6. The tentative dates are Wednesday, February 24, 2016 and Wednesday, March 30, 2016. Notice that these dates are tentative and can be subject to change.

All exams are closed book and closed notes. Make-up exams will not be given under any circumstances.

At the end of the semester the grades will be normalized with respect to the average of the class. Natural groupings will be used to assign the final letter grade. The highest scoring group will receive an A, the next group an A- and so on. Historically, an average score of mid to high 60's (out of 100) has been a C+.

Contesting of grading of all materials (exams and homework) must be done within one week after the graded material is returned. After 7 days, the material in question will not be regraded.

Other Issues:

Be respectful to your classmates and the instructor. Students are expected to be on time for class and to remain once class starts. Cell phones and pagers should be turned off during class.

Lectures are not mandatory. No attendance will be taken, but the material for midterms and final will be covered during lectures. Regular class attendance is obviously recommended.

Final Exam is on Friday, May 6, 2016, from 11:00 AM to 1:00 PM (Section 2, 28725)
Final Exam is on Monday, May 9, 2016, from 2:00 PM to 4:00 PM (Section 1, 28724)

The week of March 14 – 19, 2016 is Spring Recess, so the class will not meet. Also, Monday January 18, 2016 and Monday February 15, 2016 are school holidays.

Topics (Reading)	**Problems Assigned**	**Week**
1. Introduction		1
2. Concept of Stress 1.1 – 1.5	See Blackboard	1, 2
3. Stress and Strain – Axial Loading 2.1 – 2.5, 2.7, 2.8, 2.10, 2.11	See Blackboard	3, 4
4. Torsion 3.1 – 3.5	See Blackboard	5, 6
5. Pure Bending 4.1 – 4.5, 4.7 – 4.9	See Blackboard	6
6. Analysis and Design of Beams for Bending 5.1 – 5.4	See Blackboard	6, 7
7. Shearing Stresses in Beams and Thin-Walled Members 6.1 – 6.4	See Blackboard	7, 8
8. Transformations of Stress and Strain 7.1, 7.2, 7.5, 7.6	See Blackboard	8, 9
9. Deflection of Beams 9.1 – 9.4	See Blackboard	10, 11
10. Energy Methods 11.1 – 11.3, 11.5 – 11.9	See Blackboard	12, 13, 14
11. Columns 10.1	See Blackboard	15

Homework Suggested Format:

Work only one problem per page. Do **NOT** use the back of the page. The homework should be done and presented very clearly and neatly. Sloppy work on homework assignments, as well as the exams, will be harshly graded or not graded at all. All homework problems should contain the following:

(a) Problem Number and Page Number, or Chapter Number and Problem Number.

(b) **Solution:** Solve the problem in a neat and logical manner. Sketch all required free-body-diagrams (FBD), if applicable. Write each general equation before substituting in the appropriate values in a specific equation. This procedure allows you and others to follow what you have done.

(c) Each calculated value should have a unit (not just the final answer). Enclose the answer(s) in a box including the appropriate units and direction (if applicable).

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 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 and contact information for DSP:
http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html,
(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, (www.usc.edu/scampus or http://scampus.usc.edu) contains the University Student Conduct Code (see University Governance, Section 11.00), while the recommended sanctions are located in Appendix A. Academic integrity will be strongly enforced.

Emergency Preparedness/Course Continuity in a Crisis

In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies.