Syllabus
CE 3312: Reinforced Concrete Design
MWF 11:00 to 12:00, Lafferre W0010
Spring 2008

Instructor: Dr. Sarah Orton
E2503 Lafferre Hall; Phone: 573-884-5089; OrtonS@missouri.edu
Office hours: MW 10-11 am, or Open, stop in any time; or call or email for appointment.

Course Description: This course will cover the basic reinforced concrete design, including topics such as flexural design of beams, ACI code based design, shear, serviceability, and column design.

ACI 318-08 “Building Code Requirements for Structural Concrete” (purchased through professor)


PREREQUISITES: CV ENG 3300

TOPICS
1. Review of concrete materials and mechanics of materials
2. Flexural analysis of beams
   a. Cracking, yield, and nominal moment capacity
   b. Rectangular, T-shaped, and irregular sections
   c. Doubley reinforced sections
3. ACI Code based design
   a. Serviceability
   b. Required steel area
   c. Development length
   d. Beam design
4. Shear
5. Columns
   a. Pure axial load
   b. Combined axial load plus bending
   c. Slender columns
6. Misc. Topics
   a. Footings
   b. Retaining walls

CREDIT DISTRIBUTION
Homework 25%
Class Project 5%
2 Exams 40%
Final Exam 30%
Total 100%

GRADING SCALE
Undergraduate: 92-100(A), 90-91(A-), 88-89(B+), 83-87(B), 80-82(B-), 78-79(C+), 73-77(C), 70-72(C-), 60-69(D), 59 or less(F)

Homework: All homework will be completed in a neat and clear manner following the example handed out in class. Homework is due at the beginning of class on the due date. Late homework is not accepted except in special circumstances.
**ADA Statement:** If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class, or at my office.

To request academic accommodations (for example, a notetaker), students must also register with the Office of Disability Services, SS Memorial Union, 882-4696. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

**Academic Integrity:** Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from The University. Since such dishonesty harms the individual, all students, and the integrity of The University, policies on scholastic dishonesty will be strictly enforced.

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person’s work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest, whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about collaboration, plagiarism, paraphrasing or quoting, please consult with me.

The University community welcomes intellectual diversity and respects student rights. Students who have questions concerning the quality of instruction in this class may address concerns to either the Departmental Chair or Divisional leader or Director of the Office of Students Rights and Responsibilities (http://osrr.missouri.edu/). All students will have the opportunity to submit an anonymous evaluation of the instructor(s) at the end of the course.