Southern Polytechnic State University
CE 3201 – Structural Analysis
Course Syllabus –Fall 2011

Instructor:

Wasim Barham, Ph.D.
Assistant Professor
Office: M160A
Tel: 678 915 3946
Email Address: wbarham@spsu.edu

Office Hours: Tuesday:11:30am – 12:30pm
Wednesday: 11:00am – 12:30pm
5:00 pm – 6:00pm
Thursday: 8:30am-10:00am
Other times (By appointment – Walk in- Email me or Call me!!!)

Class Time and Location:

Lecture: Tuesday and Thursday, 10:00am –11:15am
Room: J110

Textbook (Required):

Structural Analysis, 8th Edition, Hibbeler, 2012

Prerequisite:

ENGR 3131

Learning Outcomes:

- Analyze determinate structures (truss, beam and frame) under various loading conditions
- Draw axial, shear, and bending moment diagrams for beams and frames
- Analyze plane trusses using the method of joints and method of section
- Apply the method of virtual work to calculate slope and deflections of beams, frames, and trusses.
- Use the method of moment distribution to analysis indeterminate continuous beams and frames with and without sidesway.
- Construct influence lines for statically determinate beams
- Evaluate and compare the results of computer analyses with those obtained by hand calculations

Course Outcome Measures and Assessment:

Measures and assessment of the outcomes will be made by:

1- Periodic homework assignments.
2- Three one hour exams during the semester.
3- One 2-hour final exam.
4- Course and instructor evaluation at the end of the semester to provide student feedback on the quality of the course and effectiveness of the instructor.

Grading:

1. First exam (mid February) 15.0 %
2. Second exam (mid March) 15.0 %
3. Third exam (mid April) 15.0 %
4. Homework and quizzes 20.0 %
5. Attendance 5.0 %
6. Project (SAP2000) 5.0 %
7. Final exam (during finals week) 25.0 %

The Grading Scale is as follows:

90.0 % and up = A

77.0-89.0% = B

64.0-76.0% = C

52.0-63.0% = D

0.0 - 51.0% = F

- Late homework and reports will NOT be accepted for credit. Work turned in late may be evaluated to provide you with feedback, but will not be graded / given credit except in cases of documented emergency.

Homework Preparation Guideline:

- Homework must be submitted on engineering calculation sheets
- Homework must be bounded or stapled
- Show all your work for full credit! Write your name on every page. Present your work neatly!

Class and lab Attendance Policy:

" … *The instructor may reduce the course grade of any student who fails to meet the attendance requirements as set forth in the instructor's attendance policy. Students should understand they are responsible for all course material covered and that they are responsible for the academic consequences of their absences.*" (*SPSU Student's handbook*)

Lecture attendance policy

# of Absence	0 - 3	More than 3
Point Deduction	0	1.5 points per absence

Disruptive Behavior and Academic Dishonesty

A faculty member reserves the right to remove any student from his or her course if the student's behavior is of a disruptive nature or where there is evidence of academic dishonesty. In instances of disruptive behavior and/or academic dishonesty, the faculty member will discuss the circumstances with the student(s) before taking final action. In the event the student cannot be reached, he/she will be given the grade of "Incomplete" until such time as he/she can be reached. The student shall have the right of appeal of the faculty member's decision first to the faculty member's department head and then to the appropriate college or school dean and, if necessary, to the Vice President for Academic Affairs. Removal of a student from a course under this provision will result in the faculty member's issuing a grade of "F". A grade of "F" issued under these circumstances shall not be superseded by a voluntary withdrawal and will be included in the student's cumulative grade point average calculated for graduation purposes. *(SPSU Student's Handbook)*

Lecture Topics:

1. Types of Structures and Loads
2. Analysis of Statically Determinate Structures
3. Analysis of Statically Determinate Trusses
4. Internal Loadings Developed in Structural Members
5. Deflections
6. Influence Lines for Statically Determinate Structures
7. Displacement Method of Analysis: Moment Distribution