



CE 3201 – Structural Analysis

Fall 2012

TIME & PLACE: MW, 4:00 pm -5:15 pm, M137
CREDITS: 3 Credits
INSTRUCTOR: Metin Oguzmert, PhD, PE
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OFFICE HOURS: T R, 1:30-3:00 PM W, 10:00AM-12:00PM

PREREQS: ENGR3131 – Strength of Material

TEXTBOOK: *Structural Analysis*, R. C. Hibbeler, Prentice Hall, 8th Edition

OUTLINE:

	Topic	Book
I.	Types of Structures and Loads	Ch.1
II.	Analysis of Statically Determinate Structures	Ch.2
III.	Analysis of Statically Determinate Trusses	Ch.3
IV	Internal Loadings Developed in Structural Members	Ch.4
V	Deflections	Ch. 8 & 9
VI	Influence Lines for Statically Determinate Structures	Ch.6
VII	Displacement Method of Analysis: Moment Distribution	Ch.7

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 analyze 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

GRADING:	MIDTERMS (2)	- 40 %	
	FINAL	- 30 %	(Comprehensive)
	HOMEWORK	- 12.5%	
	QUIZZES	- 12.5%	
	PROJECT (SAP2000)	- 5 %	

Grading Policy*:

A	B	C	D	F
100 – 90	89.9 - 80	79.9 -70	69.9 - 60	59.9 – 0

*The instructor reserves the right to adjust these cutoffs downward.

POLICIES:

- Every homework assignment is due in one week, unless instructed otherwise
- Assignments have to be turned in during class session.
- 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!
- 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.
- Submission will not be accepted if the solutions are distributed by any means.
- You may consult with others on assignments, provided you only submit your own attempt at the work.
- Use of cell phones in classroom is not allowed for any purpose. Please put your phone on silent and keep it off your desk during the class.

**ACADEMIC HONESTY &
DISRUPTIVE BEHAVIOR:**

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).

DISABILITY SUPPORT:

If you have a documented disability as described by the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) that may require you to need assistance attaining accessibility to instructional content to meet course requirements, we recommend that you contact the ATTIC at 678 915 7361 as soon as possible. It is than your responsibility to contact and meet with your instructor. The ATTIC can assist you and the instructor in formulating a reasonable accommodation plan and provide support in developing appropriate accommodations for your disability. Course requirements will not be waived but accommodations will be made, when appropriate, to assist you to meet requirements. (SPSU's ADA Compliance Statement)