FALL 2002 - EG 283 STATICS
MWF 11:15-12:05 PM

INSTRUCTOR:
Dr. Jan Gou
Office hours: MWF, 2:00-5:00pm, also by appointment

COURSE OBJECTIVE:
The objective of this course is to provide students with the tools for analyzing systems in static equilibrium. Upon course completion, the student should be able to

1. Represent and calculate force and moment vectors and their resultants
2. Draw free-body diagrams for static systems
3. Solve for loads in truss systems using methods of joints and method of sections
4. Solve for loads in frame/machine systems
5. Draw the shear and moment diagrams of beams with concentrated forces, distributed forces and couples
6. Calculate centroid and area moment of inertia by integrating or method of composites with utilization of the transfer of axis theorem
7. Apply concepts of static equilibrium to determine forces due to friction

PREREQUISITE:
MA 126 Calculus II

TEXTBOOK:
Engineering Mechanics: Statics, J. L. Meriam and L. G. Kraige, Fifth Edition, ISBN 0-471-40646-5, John Wiley & Sons, 2002.

TOPICS COVERED:
Class lectures and assignments emphasize vector force system and equilibrium conditions for topics including:

1. Review of basic physics, vector algebra
2. Forces, moments, and couples
3. Free-body diagram
4. Equilibrium analysis of rigid bodies, beams, trusses, and frames
5. Distributed forces
6. Friction

GRADING POLICY:
Homework 20%
Exam I 15% Exam II 15%
Exam III 15% Exam IV 15%
Final Exam 20%
90 or more will get A 80 - less than 90 will get B
70 - less than 80 will get C 60 - less than 70 will get D
Less than 60 will get F

Homework will be due in one week after it is assigned. If homework assignments are late, points will be deducted. Each day an assignment is late 10% will be taken off. You are encouraged to work with others in doing homework problems, but simply copying another student's work is a breach of academic honesty and will result in appropriate academic discipline being taken.

There will be four exams plus a comprehensive final exam. Most of items asked in the exams will need numerical calculations. All examinations missed due to illness or emergency require a written, verified excuse or a grade of zero will be assigned. If there is a proper excuse for a missed examination, a make-up test will be given, or a grade made of the average of the final exam and other exams will be assigned as the grade of the missed test - at the option of the instructor.

ATTENDANCE POLICY:
Class attendance will contribute significantly to success in this course. All students are required to attend all classes and examination sessions. It is the student's responsibility to understand the material covered in the class during any absence.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES
In accordance with the Americans with Disabilities Act, students with disabilities will be afforded reasonable accommodation. The Office of Special Student Services will certify a disability and advise faculty members of reasonable accommodation.

TENTATIVE COURSE SCHEDULE
EG 283 - FALL 2002

Dr. Jan Gou

Week	Date		Reading	Assignment
1	M	Aug 19	1.1-1.8	
	W	Aug 21	C.1-C.7	HW #1, due Wed 08/28
	F	Aug 23	2.1-2.3	
2	M	Aug 26	2.4	
	W	Aug 28	2.5	HW #2, due Wed 09/04
	F	Aug 30	2.6	
3	M	Sep 2	Labor day	
	W	Sep 4	2.7	
	F	Sep 6	2.8	HW #3, due Fri 09/13
4	M	Sep 9	2.8	
	W	Sep 11	2.9	
	F	Sep 13	Review	
5	M	Sep 16	Chapters 1, 2	Exam I
	W	Sep 18	3.1-3.2	HW #4, due Wed 09/25
	F	Sep 20	3.2	
6	M	Sep 23	3.3	
	W	Sep 25	3.4	HW #5, due Wed 10/02
	F	Sep 27	3.4	
7	M	Sep 30	Review	
	W	Oct 2	Chapter 3	Exam II
	F	Oct 4	4.1-4.3	HW #6, due Fri 10/11
8	M	Oct 7	4.3	
	W	Oct 9	4.4	
	F	Oct 11	4.5	HW #7, Fri 10/18
9	M	Oct 14	4.6	
	W	Oct 16	Review	
	F	Oct 18	Chapter 4	Exam III
10	M	Oct 21	5.1	
	W	Oct 23	5.2	HW #8, due Wed 10/30
	F	Oct 25	5.3	
11	M	Oct 28	5.4	
	W	Oct 30	5.5	
	F	Nov 1	5.6	HW #9, due Fri 11/08
12	M	Nov 4	5.7	
	W	Nov 6	5.8	
	F	Nov 8	5.9	
13	M	Nov 11	Review	
	W	Nov 13	Chapter 5	Exam IV
	F	Nov 15	6.1-6.3	
14	M	Nov 18	6.4	HW #10, due Wed 11/22
	W	Nov 20	6.8	
	F	Nov 22	A1-A2	
15	M	Nov 25	A3	
	W	Nov 27	Thanksgiving holidays	
	F	Nov 29	Thanksgiving holidays	
16	M	Dec 2	Review	

Final Exams December 5-10, 2002 - grades due December 13.