SUMMER 2003 - EG 284 DYNAMICS
MTWRF 11:30 AM-12:25 PM

INSTRUCTOR:
Dr. Jan Gou
Office hours: MW, 9:10 am - 11:15 am; or by appointment

PREREQUISITE:
EG 283 Statics
MA 126 Calculus II

TEXTBOOK:
Engineering Mechanics: Dynamics, by J. L. Meriam and L. G. Kraige, 5th Edition, John Wiley & Sons, 2002.

COURSE CONTENT:
Kenimatics and kinetics of particles and rigid bodies. Work/energy and momentum methods.

COURSE OBJECTIVE:
1. Apply the concepts of kinematics to calculate acceleration, velocity and displacements of particles in rectilinear and curvilinear coordinates.
2. Apply Newton's Second Law, concepts of work, energy and impulse-momentum to calculate forces, accelerations, velocities and displacement of particles.
3. Apply the concepts of kinematics, Newton's Second law, work, energy and impulse-momentum to calculate forces, accelerations, velocities and displacements of plane rigid bodies.

GRADING POLICY:

Class Attendance	10%
Homework Assignments	25%
Term Exams	45%
Final Exam	20%
Total	100%

COURSE GRADE: A (90-100); B (80-89); C (70-79); D (60-69); F (<60)

FINAL EXAM: 10:30 am -12:30 pm, Thursday, July 31, 2003

CLASSROOM POLICY:
1. Homework assignments will be announced in class and they are due at the beginning of the class period on the due day. If homework assignments are late, points will be deducted. Each day an assignment is late 10% will be taken off.
2. There will be three exams plus a comprehensive final exam. Sketches and all solutions must be shown clearly and neatly in your exam papers. All examinations missed due to illness or emergency require a written, verified excuse or a grade of zero will be assigned.
3. Class attendance is necessary for satisfactory performance. It is student's responsibility to find out about all the assignments and announcements made in class. The student is held responsible for all missed work and classroom information. Class roll will be taken at the beginning of the term to ensure that students are attending the correct class and section.

Class rolls will not be taken each time, but may be taken at any time to identify absentees.

4. Cheating and plagiarism are serious academic matters and they will be handled by the following policy and by the University policy. A grade of zero is assigned for the entire assignment. For example, zero is assigned for the entire test and not for individual parts of the test. Automatic failure of the course can result from a zero grade on an individual assignment. The case will be reported to the Dean of Students for disciplinary action.
5. In accordance with Americans Disabilities Act, students with bona fide disabilities will be afforded reasonable accommodation. The office of Special Student Services will certify a disability and advise faculty members of reasonable accommodations. If you have a specific disability that qualifies you for academic accommodations, please notify your instructor and provide certification from Disability Services (Office of Special Students Services). The Office of Special student Services is directed by Ms. Bernita Pulmas and is located in the Student Center, Room 270, Phone 460-7212.
6. Since all classes do not progress at the same rate, the instructor may wish to modify the syllabus requirements or their timing as circumstances dictate. For example, the instructor may wish to change the number and frequency of exams, or the number and sequence of assignments. If such a modification is warranted, students will be given adequate notification in writing.

EG 284 - Dynamics - SUMMER 2003

	DAY	DATE	ARTICLES	READING ASSIGNMENT
1	**M**	2-Jun	1/1-1/7	Introduction
2	**T**	3-Jun	2/1-2/2	Rectilinear Motion
3	**W**	4-Jun	2/3-2/4	Plane Curvilinar Motion
4	**R**	5-Jun	2/5	Normal and Tangential Coordinates
5	**F**	6-Jun	2/6-2/7	Polar Coordinates
6	**M**	9-Jun	2/8	Relative Motion
7	**T**	10-Jun	2/9	Constrained Motion of Connected Particles
8	**W**	11-Jun	2/9	Constrained Motion of Connected Particles
9	**R**	12-Jun		Review
10	**F**	13-Jun	**TEST 1**	
11	**M**	16-Jun	3/1-3/3	Newton's Second Law, Equations of Motion
12	**T**	17-Jun	3/4	Rectilinear Motion
13	**W**	18-Jun	3/4	Rectilinear Motion
14	**R**	19-Jun	3/5	Curvilinear Motion
15	**F**	20-Jun	3/6	Work and Kinetic Energy
16	**M**	23-Jun	3/7	Potential Energy
17	**T**	24-Jun	3/8-3/9	Linear Impulse and Momentum
18	**W**	25-Jun	3/10	Angular Impulse and Momentum
19	**R**	26-Jun	3/11-3/12	Impact
20	**F**	27-Jun	3/11-3/12	Impact
21	**M**	30-Jun		Review
22	**T**	1-Jul	**TEST 2**	
23	**W**	2-Jul	4/4-4/5	Impulse, Momentum and Enery, Conservation
24	**R**	3-Jul	5/1-5/2	Plane Kinematics, Rotation
	F	4-Jul	**HOLIDAY**	
25	**M**	7-Jul	5/3	Absolute Motion
26	**T**	8-Jul	5/4	Relative Velocity
27	**W**	9-Jul	5/5	Instantaneous Center of Rotation
28	**R**	10-Jul	5/6	Relative Acceleration
29	**F**	11-Jul	5/7	Motion Relative to Rotating Axes
30	**M**	14-Jul	5/7	Motion Relative to Rotating Axes, Review
31	**T**	15-Jul	6/1-6/3	Equations of Motion, Translation
32	**W**	16-Jul	6/1-6/3	Equations of Motion, Translation
33	**R**	17-Jul	6/4	Fixed-Axis Rotation
34	**F**	18-Jul	6/4	Fixed-Axis Rotation
35	**M**	21-Jul	6/5	General Plane Motion
36	**T**	22-Jul	6/5	Work and Energy
37	**W**	23-Jul	6/6	Work-Energy Relations
38	**R**	24-Jul	6/8	Impulse-Momentum Equations
39	**F**	25-Jul	**TEST 3**	

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