King Fahd University of Petroleum & Minerals
DEPARTMENT OF CIVIL ENGINEERING

CE 201   STATICS (Section 01)
Second **Semester 2003-2004 (032)**

Text: Engineering Mechanics/Statics - R.C. Hibbeler (9th Ed.)
Prerequisite: PHYS 101

Instructor: Dr. Naser Al-Shayea
Office   :   16-134
Phone   :   2480
e-mail   :   nshayea@kfupm.edu.sa

Date		Subject	Section	Lecture No.
Feb.	14	Introduction	1.1-1.6	1
	16	Scalars & Vectors	2.1-2.2	2
	18	Vector Addition of Forces	2.3	3
	21	Addition of Coplanar Forces	2.4	4
	23	Cartesian Vectors	2.5-2.6	5
	25	Position Vectors, Force along a Line	2.7-2.8	6
	28	Dot Product	2.9	7
Mar.	01	Equilibrium of a Particle & Free-Body Diagrams	3.1-3.2	8
	03	Coplanar Force Systems	3.3	9
	06	Three-Dimensional Force Systems	3.4	10
	08	Three-Dimensional Force Systems	3.4(cont.)	11
	10	Cross Product, Moment of a force	4.1-4.2	12
	13	Moment of a Force & Principle of Moments	4.3-4.4	13
	15	Moment about an axis	4.5	14
		EXAM 1		
	17	Moment of a couple	4.6	15
	20	Force and Couple Systems	4.7-4.8	16
	22	Distributed Loading	4.10	17
	24	Equilibrium of a Rigid Body	5.1-5.2	18
	27	Equilibrium of a Rigid Body (2-D)	5.3	19
	29	Equilibrium of a Rigid Body (2-D), Two and Three-force Members	5.3 (cont.),5.4	20
	31	Equilibrium of a Rigid Body (3-D)	5.5-5.6	21
Apr.	03	Equilibrium of a Rigid Body (3-D)	5.6 (cont.)	22
	05	Simple Trusses	6.1	23
	07	The Method of Joints	6.2	24

Date	Subject	Section	Lecture No.

Apr.	10	The Method of Joints	6.2(cont.)	25
	12	Zero Force Members	6.3	26
		EXAM 2		
	14	The Method of Sections	6.4	27

	17	Frames and Machines	6.6	28
	19	Frames and Machines	6.6 (cont.)	29
	21	Frames and Machines	6.6 (cont.)	30

	24	Internal Forces (2-D)	7.1	31
	26	Internal Forces (3-D)	7.1 (cont.)	32
	28	Shear and Moment Equations & Diagrams	7.2	33

May	01	Shear and Moment Equations & Diagrams	7.2 (cont.)	34
	03	Shear and Moment Equations & Diagrams	7.2 (cont.)	35
	05	Shear and Moment Equations & Diagrams	7.2 (cont.)	36

	08	Dry Friction	8.1	37
	10	Problems Involving Dry Friction	8.2	38
		EXAM 3		
	12	Problems Involving Dry Friction	8.2 (cont.)	39

	15	Problems Involving Dry Friction	8.2 (cont.)	40
	17	Center of Gravity & Centroid (No Applications)	9.1-9.2	41
	19	Center of Gravity for Composite Bodies	9.3	42

	22	Center for Gravity for Composite Bodies	9.3 (cont.)	43
	24	Moment of Inertia for Areas, Parallel-Axis Theorem	10.1-10.2	44
	26	Moment of Inertia for Composite Areas	10.5	45

Grade Distribution:

Homework	=	9%
Attendance + Class Participation	=	5%
First Major Exam	=	17%
Second Major Exam	=	17%
Third Major Exam	=	17%
Final Exam	=	35%
Total		100%

<u>**Note:**</u>

- *Homework* will be assigned in *every week*.
- The University regulations regarding excessive absences will be strictly adhered to in this course. (9 unexcused absences → DN grade).
- Each assignment **MUST** be submitted according to the Standard Format.
- Each assignment **MUST** have a cover page.
- No make-up exams will be allowed.
- Attendance will be checked regularly. The grade will be lowered 0.5% for each lecture absence without an official excuse.