

King Fahd University of Petroleum & Minerals
CIVIL ENGINEERING DEPARTMENT

STRUCTURAL ANALYSIS I (Term 072)
CE 305-01

Textbook : Structural Analysis (6th edition) by R.C. Hibbeler
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COURSE OUTLINE & SCHEDULE

Date	Lecture	Subject	Section #
Feb. 16	1	Introduction	-----
18	2	Structures and Equilibrium	2.1-2.2
20	3	Statically Determinate Structures	2.3-2.5
23	4	Shear & Moment Diagrams for Beams	4.1-4.2
25	5	Shear & Moment Diagrams for Beams	4.3
27	6	Shear & Moment Diagrams for Frames	4.4
Mar. 01	7	Shear & Moment Diagrams for Frames	4.4
03	8	Influence Lines	6.1-6.2
05	9	Influence Lines for Beams	6.3
08	10	Influence Lines for Beams	6.3
10	11	Influence Lines for Trusses	6.5
12	12	Deflection of Beams	8.1-8.2
15	13	Moment-Area Method	8.4
17	14	Moment-Area Method	8.4
19	15	Conjugate Beam Method	8.5
22	16	Conjugate Beam Method	8.5
24	17	Conjugate Beam Method	8.5
26	18	Work & Energy	9.1-9.3
29	19	Virtual Work for Trusses	9.4
31	20	Virtual Work for Beams & Frames	9.5
Apr. 02	21	Virtual Work for Beams & Frames	9.5
05	22	Castigliano's Theorem for Trusses	9.7-9.8
07	23	Castigliano's Theorem for Beams & Frames	9.9
09	24	Castigliano's Theorem for Beams & Frames	9.9
Midterm Vacation (April 12-16, 2008)			

Date	Lecture	Subject	Section	
Apr.	19	25	Statically Indeterminate Structures	10.1-10.2
	21	26	Maxwell Theorem	10.3
	23	27	Force Method for Beams	10.4
	26	28	Force Method for Beams	10.4
	28	29	Force Method for Frames	10.5
	30	30	Structural Analysis using the Computer	Handout
May	03	31	Structural Analysis using the Computer	Handout
	05	32	Slope-Deflection Equations	11.1
	07	33	Slope-Deflection Method for Beams	11.2
	10	34	Slope-Deflection Method for Beams	11.2
	12	35	Slope-Deflection Method for Beams	11.3
	14	36	Moment Distribution Method	12.1
	17	37	Moment Distribution Method for Beams	12.2
	19	38	Moment Distribution Method for Beams	12.3
	21	39	Moment Distribution Method for Frames	12.4
	24	40	Moment Distribution Method for Frames	12.4
	26	41	The Stiffness Method	15.1
	28	42	The Stiffness Matrix for Beams	15.2-15.3
	31	43	The Stiffness Method for Beams	15.4
June	02	44	The Stiffness Method for Beams	15.4
	04	45	Review	-----

Grade Distribution:

Attendance & Class	:	5%
Homework & Quizzes	:	15%
First Major Exam	:	25%
Second Major Exam	:	25%
Final Exam	:	<u>30%</u>
		100%

- Note:**
- (1) The University regulations regarding excessive absences will be strictly adhered to in this course. See the Undergraduate Bulletin for details.
 - (2) All homeworks are to be submitted neatly with a cover page in due date. Late submission will not be accepted.