Republic of Iraq

Ministry of Higher Education and Scientific Research
Supervision and Scientific Evaluation Apparatus

College: Shatt Al-Arab University
Department: Civil Engineering
Stage: 2nd stage
Lecturer name: Dr. Jasim Mohsin Yasir
Academic title: Lecturer

Course Weekly Outline

Name	Dr. Jasim Mohsin Yasir			
E-mail address	jasimmohsen@sa-uc.edu.iq			
Course name	Mechanics of Materials 2			
Course objective	The objective of this course is elaborate on the knowledge of engineering mechanics (statics) and to teach the students the purpose of studying strength of materials with respect to civil engineering design and analysis. The course introduces the students to the concepts of engineering mechanics of materials and the behavior of the materials and structures under applied loads			
Course description	Apply the knowledge of fundamental sciences mainly mathematics and physics to identify, formulate and solve civil engineering problems including stress, strain and deflection calculations as well as calculating axial force, shear and bending moment diagrams used in civil engineering analysis and design			
References	1.Strength of Materials 2. Mechanics of Materials , R.C. Hibbeler.			
External sources	1.Strength of Materials 2. Mechanics of Materials , R.C. Hibbeler.			
Course assessment	**Lab.**	**Quizzes and assessment**	**Mid-term exam**	**Final exam**
		40	**10**	**50**
General notes				

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Week No.	Theoretical	Experimental	Aims
1	Shearing Forces and Bending Moments in Beams		The objective of this course is elaborate on the knowledge of engineering mechanics (statics) and to teach the students the purpose of studying strength of materials with respect to civil engineering design and analysis. The course introduces the students to the concepts of engineering mechanics of materials and the behavior of the materials and structures under applied loads
2	Shearing Forces and Bending Moments in Beams		
3	Shearing Forces and Bending Moments in Beams		
4	Shear force and bending moment diagrams.		
5	Shear force and bending moment diagrams.		
6	Shear force and bending moment diagrams.		
7	Bending stress in Beams		
8	Bending stress in Beams		
9	Shearing stress in beams		
10	Shearing stress in beams		
11	Deflection of Beams-Integration Method		
12	Deflection of Beams-Integration Method		
13	Deflection of Beams-Singularity Method		
14	Buckling of Columns.		
15	Buckling of Columns.		