## Republic of Iraq

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



College: Shatt Al-Arab University
Department: Civil Engineering

Stage: 2<sup>nd</sup> 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			<u> </u>			

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Week No.	Theoretical	Experimental	Aims		
1	Shearing Forces and Bending		න හි දි දි		
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2	Shearing Forces and Bending		tud nal nee		
	Moments in Beams		engineering of studying und analysis. engineering d structures		
3	Shearing Forces and Bending		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		
<u> </u>	Moments in Beams				
4	Shear force and bending				
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5	Shear force and bending		the rin mov		
	moment diagrams.		e k ts nee e c		
6	Shear force and bending		elaborate on the sach the students ect to civil engine students to the ne behavior of th		
	moment diagrams.		on on to to or		
7	Bending stress in Beams		ate e s sivi		
8	Bending stress in Beams		course is elaborat and to teach the with respect to civices the students als and the behav		
9	Shearing stress in beams		elal sch cct t cct tud		
10	Shearing stress in beams		is e tea spe		
11	Deflection of Beams-		Se receipt the my		
	Integration Method		oun oun ith		
12	Deflection of Beams-		s c au ce rial		
	Integration Method		thi rial rod ate		
13	Deflection of Beams-Singularity		tati tati tati intu aateu intu		
	Method		(s) (s) of		
14	Buckling of Columns.		ect iics ours iics ppl		
			obj han ngtł co co han han		
15	Buckling of Columns.		The objective of this course is mechanics (statics) and to the strength of materials with resp. The course introduces the mechanics of materials and the under applied loads.		