The Republic of Iraq

Ministry of Higher Education and Scientific Research

Scientific Supervision and Evaluation Authority

University: Shatt Al-Arab University

College: College of technical Engineering

Department Laser and Optoelectronics Engineering Technology

The First stage

Lecturer Name: Amjad Hashim Faisal

Academic qualification

Place of work: Shatt Al-Arab University

MODULE DESCRIPTION FORM

Course Lecturer	**Amjad Hashim Faisal**
e-mail	**amjad_has88@yahoo.com**
Title	Engineering Mechanics-Static
Course Coordinator	
Course Objectives	The student can use the knowledge of Engineering Mechanics (Statics) for analyzing force systems (structures, machines, frames…etc.) , in order to became able to design components and finally the systems as a whole in the next years.
Module Learning Outcomes	1. Knowing how to calculate rectangular components, moment, couple and resultant. 2. The Student can apply equilibrium equations to find forces - and or - reaction that maintain the state of equilibrium to the structures. 3. Learning the ability to analyze truss structures, using method of joints and method of sections. 4. The student can calculate the forces in frames and machines.
Textbooks	1- ENGINEERING MECHANICS – STATICS, MERIAM and KRAIGE, Sixth Edition. 2- VECTOR MECHANICS FOR ENGINEER – STATICS, BEER and JOHNSON, Ninth Edition. 3- https://www.youtube.com/@alaaaljassani6779/videos.

final exam	**Assignment**	**Quizzes**	**Repot**	**Midterm Exam**
50	**10**	**20**	**10**	**10**

General Notes		

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Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Basic Concepts, Scalars and Vectors, Units Conversion.
Week 2	Two-Dimensional Force Systems-Rectangular Components
Week 3	Two-Dimensional Force Systems-Moment and Couple
Week 4	Two-Dimensional Force Systems-Resultant
Week 5	Three-Dimensional Force systems-Rectangular Components
Week 6	Three-Dimensional Force Systems-Moment and Couple
Week 7	Mid-term Exam.
Week 8	Three-Dimensional Force Systems-Resultant
Week 9	Two-Dimensional Equilibrium, F.B.D. , Equilibrium Conditions …etc.
Week 10	Three-Dimensional Equilibrium, F.B.D. , Equilibrium Conditions …etc.
Week 11	Structures, Plane Trusses, Method Of Joints
Week 12	Structures, Plane Trusses, Method Of Sections
Week 13	Structures, Space Trusses
Week 14	Structures, Frames and Machines
Week 15	Review
Week 16	**Preparatory week before the final Exam**

lecturers signature: **Head of Department signature:**