

Engineering Faculty

Aviation Department

Second Grade- Fall Semester

Engineering Mechanics

2023-2024

Lecturer: Ms. Jwan Khaleel M.



Course Content:

Week	Hour	Date	Topic
1	3	24-28/3/2024	Registration +Introduction to engineering of mechanics with course description
2	3	31/3-4/4/2024	General Principles
3	3	14-18/4/2024	vector principle of force
4	3	21-25/4/2024	3D of vector forces- Position vector
5	3	28/4-2/5/2024	3D of vector forces - Dot product
6	3	5-9/5/2024	Midterm Exam
7	3	12-16/5/2024	Moment of Forces +couple of Forces
8	3	19-23/5/2024	Equilibrium-Particle
9	3	26-30/5/2024	Equilibrium - Rigid Body
10	3	2-6/6/2024	Structural Analysis- method of joint
11	3	9-13/6/2024	Final Exam

➤ Learning Outcomes:

1. Express vectors in terms of unit vectors and perpendicular components, perform vector addition and subtraction and State Newton's laws of motion.
2. Compute a moment vector in terms of a force vector, moment of a couple, given the couple forces, resultant of a system of coplanar forces if that resultant is a force and the moment of the resultant couple.
3. Observe the principle of action and reaction (Newton's third law) when assigning the sense of each force. Label all forces and couples, known and unknown.
4. Evaluate the sum of the moments, about a convenient axis, of all the increments of forces.
5. Apply principles of equilibrium to solve for the effects of distributed forces in beams.

➤ Module Assessments/Grade Weight:

Assessment type	Strategy/ numbers	Weight %
Participation	Per each lecture	5
Assignments	After finishing each lecture	10
Quiz	3 quizzes	15
Mid Term Exam	One exam	30
Final Term Exam	One exam	40
Total		100%

➤ *Class Policy:*

The students will not be allowed to:

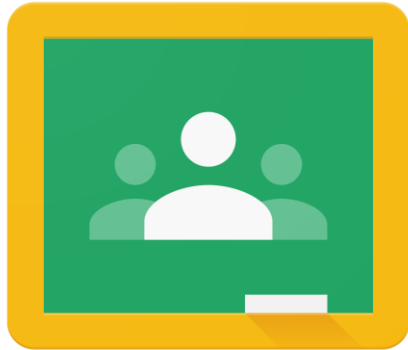
- Participate in the class after allowance time (10 minutes).
- Plagiarism in Reports/ Assignments.
- Absent in the exams/ delay assignments or reports (only the medical excuses (medical report) will be accepted).
- Skipping group working and class discussion.
- Bring food inside the class except water/coffee.

➤ *Course References/textbook:*

1. Engineering Mechanics. 13th eddition, by R C Hibbeler
2. Engineering Statics (7 th Edition) by J L Meriam , Kraige,

➤ Contact:

- Download “google classroom” and join the class via given code



Google Classroom

Class code:

ilx77yq

- Lecturer email: jwan.khaleel@tiu.edu.iq

The end of the lecture
Enjoy your time