CIHAN UNIVERSITY-SULAIMANIYA

Course Outline

2025-2026

Address: Chwarchra-Opposite to Family Mall
Sulaymaniyah City
Kurdistan Region–Iraq
Tel: 07714695656,
email: presidency@sulicihan.edu.krd

MODULE DESCRIPTION FORM

Module Information		
Module Title	**Engineering Mechanics**	
Module Type	Supported learning activity	☐Theory ☐ Lecture ☐Lab ☐Tutorial ☐Practical ☐Seminar ☐Report ☐ Extra activity
Module Code	CUE42024	
Language	English	
ECTS Credits	3	

Module Level	2	**Semester of Delivery**	3rd
Administering Department	Architecture	**College**	Engineering
Lecturer	Mr. Diyari Burhan Hussein		
Academic Title	Assistant Lecturer	**Qualification**	M.Sc.
Module Tutor	Mr. Diyari Burhan Hussein	**e-mail**	Diyari.burhan@sulicihaan.edu.krd
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date		**Version Number**	1.0
Cycle of Study	Bachelor	**Form of Education**	Full time

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Cihan University Sulaimaniya?

College of Engineering

Department: Architecture
Discipline: Computer Skills
Stage: 1st

Total Contact Hours:	61
Total Self Study Hours:	20
Total No. Hours:	81
ECTS:	3

No. of Weeks	Contact Hours					Self-Study					
	Theoretical	Practical	Lab	Project	Visit	Quiz	Reading	Assignment	Report	Midterm Exam.	Final Exam.
1st Week (Registration)	4										
2nd Week	4						1				
3rd Week	4						1				
4th Week	4					1					
5th Week	4							1		2	
6th Week	4						1				
7th Week	4						1				
8th Week	4							1			4
9th Week	4					1					
10th Week	4			3			1				
11th Week	4						1				
12th Week	4					1				2	
13th Week	4							1			
14th Week	4										
15th Week (Final Exam.)	2										
16th Week (Final Exam.)											
TOTAL	58			3		3	6	3		4	4

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction • Addition and resultant of forces • Rectangular component of a force
Week 2	Equilibrium of a particle • Forces in space
Week 3	Equilibrium in Space • Vector product
Week 4	Equilibrium in Space • Moment of a force about a point
Week 5	Scalar product • Moment about an axis • Couples
Week 6	Equivalent systems of forces • Equilibrium in two dimensions
Week 7	**Mid-Term Exam**
Week 8	Equilibrium in two dimensions • Two and three force bodies • Review
Week 9	Centroid of areas and lines • Centroids by integration • Distributed loads, Centroids of volumes
Week 10	Centroids of volumes • Trusses by method of joints • Trusses by method of sections
Week 11	Frames and machines • Laws of friction and applications • Review
Week 12	Parallel axis theorem and composite areas
Week 13	Moment of inertia of masses
Week 14	Three-dimensional bodies • Composite bodies
Week 15	**Preparatory Week**
Week 16	**Final Exam**

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	This course is to introduce the basic principles of engineering mechanics with emphasis on their analysis and application to practical engineering. problems. After learning this course, you should have the ability to: 1) Solve for the resultants of any force systems. 2) Determine equivalent force systems.

	3) Determine the internal forces in plane frames, simple span trusses and beams. 4) Solve the mechanics problems associated with friction forces. 5) Obtain the centroid, first moment and second moment of an area.
Module Learning Outcomes	**Upon successful completion of the program, you should have the skills to:** 1- analyze force systems on different planes 2- understand the concepts of equilibrium 3- learns about center of gravity and moment of Inertia 4- learns the analysis of trusses 5- knows what impact frictions has on bodies

Learning and Teaching Strategies	
Strategies	English languages will be used in conducting the lectures 4 hour/week. The data show, whiteboard and marker will be used for father explanation. Problems are solved on the board, definitions and explanations are thoroughly shown on Data show and appropriate amount of time is given to students to write down the problems.

Module Evaluation

Assessment Types		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes		6%		
	Assignments		6%		
	Class Activity		4%		
	Attendence		4%		
Summative assessment	Midterm Exam	2hr	30%	7th	
	Final Exam Theory	2hr	50%	15th	
Total assessment			100% (100 Marks)		

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Lecture notes given by the lecturer	
Recommended Texts	1. Engineering Mechanics (static and dynamic) Archie Higdon, William B. Stiles. 2. Engineering Mechanics Statics R.C. Hibbeler.	
Websites		

| Grading Scheme |||||
| مخطط الدرجات |||||
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Approved by Head of the Branch / Department	
Signature	
Date	
Name	

Approved by Curriculum Development Committee and Bologna Process Committee	
Signature	
Date	
Name	