

FORM DESCRIPTION OF MODULE

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Physics		Module Delivery
Module Type	Basic		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ENG013		
ECTS Credits	7		
SWL (hr/sem)	175		
Module Level	1	Semester of Delivery	1
Administering Department	Civil Eng. Dept.	College	College of Eng.
Module Leader	Israa Hasan Nayel	e-mail	israa.nayel.bib9@atu.edu.iq
Module Leader's Acad. Title	Asst. Professor	Module Leader's Qualification	Ph.D.
Module Tutor		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	Understanding the fundamental principles of mechanical physics. Developing a strong foundation in physics that students can build upon in future studies.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Analyze the properties of forces, moments, couples, and resultants in 2D. Analyze the properties of forces, moments, couples, and resultants in 3D Solve equilibrium problems in 2D. Solve equilibrium problems in 3D. Understand basic concepts of the dynamics.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. <ul style="list-style-type: none">- The fundamental concepts necessary for the study of Physics.- The properties of forces, moments, couples, and resultants in 2D &3D- The equilibrium principles of structures.- The dynamic characteristics.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	<ul style="list-style-type: none">- The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	108	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	67	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1-3
	Assignments	2	10% (10)	2, 12	LO # 1-3
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 2-4
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to Physics and Basic Concepts
Week 2	Scalars and Vectors
Week 3	Scalars and Vectors
Week 4	Newton's Laws and Units
Week 5	Rectangular Components of force in 2D
Week 6	Moment and Couple in 2D

Week 7	Mid-term Exam + Resultants in 2D
Week 8	Rectangular Components of force in 3D
Week 9	Moment, Couple and Resultants in 3D
Week 10	Equilibrium in two dimensions
Week 11	Equilibrium in two dimensions
Week 12	Equilibrium in three dimensions
Week 13	Equilibrium in three dimensions
Week 14	Introduction to dynamics.
Week 15	Introduction to dynamics
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Workshop A
Week 2	Workshop A
Week 3	Workshop B
Week 4	Workshop B
Week 5	Workshop C
Week 6	Workshop D
Week 7	Workshop E

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Engineering Mechanics STATICS J.L.Meriam And L.G.Kraige	Yes
Recommended Texts	Engineering Mechanics: Statics by Russell Hibbeler.	No
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.