	Ministry of Higher Education and Scientific Research - Iraq University of Warith Al-Anbiyaa College of Engineering Civil Engineering Department	

MODULE DESCRIPTOR FORM

Module Information

Module Title	Physics		**Module Delivery**
Module Type	Basic		**Theory**
Module Code	ENG015		**Lecture**
ECTS Credits	7		**Lab**
SWL (hr/sem)	175		**Tutorial**
Module Level	1	**Semester of Delivery**	1
Administering Department	Civil Engineering	**College**	Engineering
Module Leader	Israa Hasan Nayel	**e-mail**	Sajjad.a@uokerbala.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	2024/9/26	**Version Number**	1

Relation With Other Modules

Prerequisite module	None	**Semester**	1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	1. Understanding the fundamental principles of mechanical physics. 2. Developing a strong foundation in physics that students can build upon in future studies.
Module Learning Outcomes	1. Analyze the properties of forces, moments, couples, and resultants in 2D. 2. Analyze the properties of forces, moments, couples, and resultants in 3D 3. Solve equilibrium problems in 2D. 4. Solve equilibrium problems in 3D. 5. Understand basic concepts of the dynamics.
Indicative Contents	Indicative content includes the following. - 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	
Strategies	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.

Student Workload (SWL)			
Structured SWL (hr/sem)	108	**Structured SWL (h/w)**	6
Unstructured SWL (hr/sem)	67	**Unstructured SWL (h/w)**	4
Total SWL (h/sem)	175		

Module Evaluation

		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)

	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)

	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

	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				
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.