Module Description Template

course description

College of Engineering

Department of Biomedical engineering

Course Information

Article Title	**Engineering Mechanics**		**Module Delivery**	
Material Type	**basic**		☒ **Theoretical** ☒ **Lecture** ☐ **Laboratory** ☒ **Discussion** ☐ **practical** ☐ **Seminar**	
Article Code	BME-213			
Number of Credit Hours according to ECTS	**4**			
SWL (Hours/Semester)	**60**			
Material Level	3	**Semester**	3	
Department	BME	**College**	Engineering	
Subject Professor	Hussein Amir Muhammad Ali	**Email**	hussein.aljawad@uowa.edu.iq	
Academic Title of the Subject Professor	Assistant Lecturer	**Academic achievement**	MSc	
Name of the unit instructor (if applicable)		Email		
Name of peer references		Email		
Date of approval of the Scientific Committee		Issue Number		

Relationship with other subjects

Course Requirements	without	**Chapter**	
Common Material Requirements	without	**Chapter**	

Course Objectives, Learning Outcomes, and Instructional Contents	
Course Objectives	Building and psychologically preparing the student to carry out his role as an engineer
Learning Outcomes for the Course	1. An ability to identify, formulate, and solve engineering problems by applying principles of engineering, science, and mathematics. 2. An ability to apply engineering design processes to produce solutions that meet specified needs with consideration of public health, safety, and global, cultural, social, environmental, economic, and other factors as appropriate to the discipline. 3. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw a conclusion.
How-to Contents	

Learning and Teaching Strategies	
Strategies	The main strategy that will be followed in the presentation of this module is to encourage students to participate in exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classrooms, interactive lessons and by looking at some kind of simple experiments involving some sampling activities that are of interest to students.

The student's academic load is calculated for 15 weeks			
Student's regular academic load during the semester	60	**Regular Academic Load of the Student Weekly**	4
Student's irregular academic load during class		**Student's irregular academic load per week**	
The student's total academic load during the semester	60		

Assessment of the course

		Time/Count	Weight (Grade)	The week	Relevant Learning Outcomes
Formative Assessment	Tests	2	10% (10)	5, 10	1&2
	Tasks	2	10% (10)	2, 12	1&2
	Projects .	1	10% (10)	Continuous	
	The Report	1	10% (10)	13	LO # 5, 8 and 10
Final Evaluation	Mid-Term Exam	2	10% (10)	7	LO # 1-7
	Final Exam	2	50% (50)	16	All
Kidney			100% (100 °)		

Theoretical Weekly Curriculum

	Covered Material
Week 1	Introduction to Dynamics
Week 2	Straight Motion
Week 3	Flat curved motion
Week 4	Vertical and tangential coordinates (n-t)
Week 5	Polar coordinates (r-θ)
Week 6	Relative Motion
Week 7	MID Exam 1
Week 8	Restricted movement of connected particles
Week 9	Labour and Energy
Week 10	Potential Energy
Week 11	Impact
Week 12	Pulsed momentum
Week 13	Energy and Momentum Conservation
Week 14	Static Mass Flow
Week 15	MID 2 Exam
Week 16	A preparatory week before the final exam

Learning and Teaching Resources

	Source	**Library Availability**
Required Source	Engineering Mechanics: Dynamics, (14th edition, by R. C. Hibbeler	Yes

Recommended Source	ENGINEERING MECHANICS: DYNAMICS, (5th editions), by J. L. MERIAM and L. G. KRAIGE.	Yes
Website	https://www.coursera.org/browse/physical-science-and-engineering/mechanical-engineering	

Grading Chart

Collection	Recognition	Recognition	Grade (%)	Definition
Success (50 - 100)	**A -** Excellent	**Privilege**	90 - 100	Outstanding performance
	B - Very Good	**Very good**	80 - 89	Above average with some errors
	C - Good	**Good**	70 - 79	Good work with noticeable errors
	D - Satisfactory	**Medium**	60 - 69	Acceptable but with major flaws
	E - Sufficient	**Acceptable**	50 - 59	Work meets minimum standards
Failure (0 – 49)	**FX –** Fail	**Deposit (in processing)**	(45-49)	More work is required but recognition has been awarded
	F – Fail	**Failure**	(0-44)	A great deal of work is required

Note: Decimal scores above or below 0.5 will be rounded to the highest or lowest full score (e.g., 54.5 will be rounded to 55, while 54.4 will be rounded to 54. The University has a zero-tolerance policy for "near-success failures", so the only adjustment to the marks awarded by the original proofreaders will be the automatic rounding described above.