



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-202				
Number of Credit Hours according to ECTS	4				
SWL (Hours/Semester)	100				
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

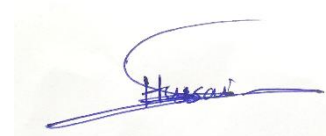
Recommended Source	ENGINEERING MECHANICS: DYNAMICS, (5th editions), by J. L. MERIAM and L. G. KRAIGE.	Yes
Website	https://www.coursera.org/browse/physical-science-and-engineering/mechanical-engineering	

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.				



Head of the Department

Dr. Osama Abdulbari

Hussein Amir Muhammad Ali