



Jordan University of Science and Technology
Faculty of Engineering
Mechanical Engineering Department

ME215 Engineering Mechanics

First Semester 2021-2022

Course Catalog

3 Credit Hours. Statics of particles, rigid bodies. Equilibrium of rigid bodies. Distributed forces. Moment of inertia. Rigid bodies kinematics. Rigid bodies kinetics. Newton's second law. Work and energy for rigid bodies. Impulse and momentum for rigid bodies, oscillations.

Text Book

Title	Engineering Mechanics (Vol.1 Statics, Vol.2 Dynamics)
Author(s)	R. C. Hibbeler
Edition	13th Edition
Short Name	TextBook
Other Information	TextBook

Course References

Short name	Book name	Author(s)	Edition	Other Information
Reference	Vector Mechanics for Engineers: Statics and Dynamics	Beer and Johnston	10th Edition	Any edition

Instructor

Name	Mr. Ghanem Shatnawi
Office Location	M6 L-2
Office Hours	Sun : 11:30 - 13:00 Mon : 10:45 - 11:30 Tue : 11:30 - 13:00 Wed : 13:15 - 14:30 Thu : 10:30 - 11:30
Email	gmshtnawi@just.edu.jo

Instructor

Name	Dr. Mohammad Omari
Office Location	N1 L2
Office Hours	Sun : 14:30 - 16:00 Mon : 10:00 - 13:00 Wed : 10:00 - 12:30 Thu : 10:00 - 13:00
Email	engomari@just.edu.jo

Class Schedule & Room	
Section 1:	Lecture Time: Sun : 13:00 - 14:30 Room: M2010
Section 2:	Lecture Time: Mon : 13:00 - 14:30 Room: C2007
Section 4:	Lecture Time: Tue : 13:00 - 14:30 Room: M2010
Section 5:	Lecture Time: Wed : 13:00 - 14:30 Room: C2007

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	General Principles	From TextBook
Week 2	Force Vectors	From TextBook
Week 3	Equilibrium of a Particle	From TextBook
Weeks 4, 5	Force System Resultants	From TextBook
Weeks 6, 7, 8	Equilibrium of a Rigid Body	From TextBook
Week 9	Structural Analysis	From TextBook
Week 10	Friction	From TextBook
Week 11	Center of Gravity and Centroid	From TextBook
Week 12	Moment of Inertia	From TextBook
Weeks 13, 14	Kinematics of a Rigid Body	From TextBook
Weeks 15, 16	Revision	From TextBook , From Reference

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
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First Exam Learning outcomes [1A, 1E, 1J, 1K]	25%	
Second Exam Learning Outcomes [1A, 1E, 1J, 1K]	25%	
HomeWorks Learning Outcome [1A, 1B, 1H]	10%	
Final Exam Learning Outcome [1A, 1B, 1E, 1J, 1K]	40%	

Relationship to Program Student Outcomes (Out of 100%)																		
A	B	C	D	E	F	G	H	I	J	K	SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	SLO7	
23.83	11.33			20.50			3.33		20.50	20.50								

Evaluation	
Assessment Tool	Weight
First Exam	20%
Second Exam	25%
HomeWorks	15%
Final Exam	40%

Policy	
Attendance and Quizzes	Attendance Policy: Attendance is MANDATORY and will be checked often. Quiz Policy: Quizzes (announced and pop-quizzes) will be given regularly based on the lectures, so keep an eye on e-learning and attend classes. There is no makeup for Quizzes.

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