

**UNIVERSITI TEKNOLOGI MARA****PHY210: MECHANICS II AND THERMAL PHYSICS**

Course Name (English)	MECHANICS II AND THERMAL PHYSICS APPROVED	
Course Code	PHY210	
MQF Credit	3	
Course Description	Mechanics II and Thermal Physics enables students to apply and respond to the basic and important principles and the related conditions in the topics include Rotational Motion, Static Equilibrium, Simple Harmonic Motion, Fluids, Thermal Physics, Ideal Gas Laws and Kinetic Theory of Gases and Introduction of Thermodynamics through learning by lecture, tutorial discussion and scientific investigations.	
Transferable Skills	Procedural skills for handling of scientific equipment Manipulative skills for utilising data to arrive at conclusion Problem solving skills Collaborative Assignment and Project (CAS)	
Teaching Methodologies	Lectures, Blended Learning, Lab Work, Inquiry-based Learning, Tutorial, Discussion, Small Group Sessions, Self-directed Learning, Directed Self-learning, Collaborative Learning	
CLO	CLO1 Explain how the principles of motion influence changes in rigid body rotational movement and how principles of energy and mass conservation influence thermodynamics and intrinsic properties of matter. CLO2 Perform (plan, conduct and analyse outcomes of) simple and guided scientific investigations in rotational mechanics and thermal physics experiments. CLO3 Propose an innovative idea in entrepreneurship on the concept's rotational mechanics and thermal physics.	
Pre-Requisite Courses	No course recommendations	
Reading List	Recommended Text	• Douglas C. Giancoli 2019, <i>Physics for Scientists & Engineers with Modern Physics</i> , 4th Ed. [ISBN: 9781292020761]
	Reference Book Resources	• Halliday, D., Resnick, R. and Walker, J 2018, <i>Fundamentals of Physics</i> , 11th Ed., Wiley New Jersey [ISBN: 978-1-119-286] • Cutnell, J. D. and Johnson, K.W. 2018, <i>Physics</i> , 11th Ed., John Wiley and Son New Jersey [ISBN: 978-111939187] • Raymond A. Serway, Chris Vuille 2018, <i>College Physics</i> , 11th Ed., Cengage Learning [ISBN: 9781305952300] • Giancoli D.C. 2021, <i>Physics, Principles with Applications</i> , 7th Ed., Prentice Hall New Jersey [ISBN: 9780137679065] • Raymond A. Serway, John W. Jewett 2018, <i>Physics for Scientists and Engineers</i> , 10th Ed., Cengage Learning [ISBN: 9781337553278]
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	