

Access to H.E. National Programme Unit



Unit Title:	Dynamics and Statics		
Graded Unit Code:	GA33PHY11	Ungraded Unit Code:	UA33PHY11
Pathway(s):	Science and Engineering Construction and the Built Environment		
Module(s):	Physics		
Level:	3	Credit Value:	3
Valid from:	31st July 2021	Valid to:	31 st July 2026

The following QAA grade descriptors must be applied if you are delivering the graded version of this unit:

1	Understanding of the subject
2	Application of knowledge
3	Application of skill
7	Quality

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	The learner can:
1. Understand the nature of vector quantities	1.1 Distinguish between scalar and vector quantities
	1.2 Find the resultant of two coplanar vectors by diagram and calculation
	1.3 Resolve vectors into components in two dimensions
	1.4 Solve problems for systems involving three coplanar forces to determine whether the forces are in equilibrium
2. Understand motion involving uniform acceleration	2.1 Use the equations of motion to solve problems involving uniform acceleration
	2.2 Solve problems for projectiles by considering vertical motion and horizontal motion independently

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3. Understand and apply the principle of moments	3.1 Define the terms 'moment', 'centre of mass' and 'couple'
	3.2 State the principle of moments and use it to solve problems for simple balanced systems
	3.3 Use experimental methods to find the centre of mass of regular laminas
4. Use momentum considerations to solve problems	4.1 Define linear momentum
	4.2 State the law of conversation of linear momentum and solve problems involving conservation of linear momentum
5. Understand Newton's Laws of motion	5.1 State Newton's laws of motion
	5.2 Apply Newton's laws of motion to solve problems
6. Understand the relationship between impulse and momentum	6.1 Define impulse
	6.2 Solve problems involving impulse and momentum