Changing lives through learning

Access to Higher Education Unit

This unit forms part of an Access to HE Diploma. If delivering the graded version of this unit, please refer to the Provider Handbook for details on grading descriptors and the application of these across units within your programme.

Unit Title: Coordinate Geometry and Vectors

Graded Unit Reference Number: GA33MTH24

Ungraded Unit Reference Number: UA33MTH24

Module: Mathematics

Level: Three (3)

Credit Value: Three (3)

Minimum Guided Learning Hours: 30

Units barred for selection against this unit:

- Coordinate Geometry (GA33MT13)
- Vectors (GA33MTH12)

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the representation of circles using Cartesian coordinates	1.1 Derive the equation of a circle from the Cartesian coordinates of its centre and its radius
	1.2 Given the equation of a circle, find its centre and radius by completing the square
	1.3 Solve problems involving the intersections of lines and circles algebraically
2. Understand the representation of graphs using parametric equations	2.1 Solve coordinate geometry problems involving parametric equations
3. Understand vectors in 2D and 3D	3.1 Use appropriate notation to solve a range of vector problems
	3.2 Solve problems involving vector magnitudes, including determining unit vectors

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	3.3	Solve problems involving the angles between vectors, their magnitudes and scalar products
4. Understand vector equations of a line in 3D	4.1	Derive the vector equation of a line in 3D
	4.2	Solve problems involving vector equations of lines, including finding intersections and angles between vectors

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