

## 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:** Medical Uses of Radioisotopes

**Graded Unit Reference Number:** GA33PHY12

**Ungraded Unit Reference Number:** UA33PHY12

**Module:** Physics; Science for Health

**Level:** Three (3)

**Credit Value:** Three (3)

**Minimum Guided Learning Hours:** 30

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the production of radioisotopes and their properties	1.1 Define the terms radioisotope and radiopharmaceutical
	1.2 Describe the production of radioisotopes for use in radiopharmaceuticals and imaging
	1.3 Explain the key properties of radioisotopes that are intended for medical use
2. Understand some of the techniques used in nuclear medicine and imaging	2.1 Explain the principles and use of the gamma camera
	2.2 Explain the use of radioisotopes in diagnostic imaging and give examples
	2.3 Explain the advantages in the use of radiopharmaceuticals for treatment as opposed to irradiation using external sources of radiation
3. Understand the effects of radiation on living cells and methods for monitoring radiation exposure	3.1 Describe the effects of different types of radiation on cells
	3.2 Distinguish between the somatic and hereditary effects of radiation

3.3 Perform calculations involving absorbed dose, exposure, relative biological effect and effective dose