

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: AC Waveforms

Graded Unit Reference Number: GA33EEE01

Ungraded Unit Reference Number: UA33EEE01

Module: Electrical and Electronic Engineering

Level: Three (3)

Credit Value: Three (3)

Minimum Guided Learning Hours: 30

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand waveforms and the main parameters used to describe and measure them	1.1 Describe the nature and uses of a range of common electronic waveforms, including sinusoidal, non-sinusoidal and unidirectional waveforms
	1.2 Define the terms amplitude, period, frequency, instantaneous, peak-to-peak voltage, r.m.s. voltage and r.m.s. power
	1.3 Define form factor and determine the a.r.v, r.m.s. and form factor of given sinusoidal waveforms
2. Understand the representation of sinusoidal quantities	2.1 Define a phasor quantity
	2.2 Add two sinusoidal voltages using a graphical method and phasor representation
	2.3 Explain the phase angle relationship between two alternating quantities
	2.4 Define sinusoidal voltage in the form $V = V_M \sin \omega t + \phi$