

# Access to H.E. National Programme Unit



Unit Title:	AC Waveforms		
Graded Unit Code:	GA33EEE01	Ungraded Unit Code:	UA33EEE01
Pathway(s):	Construction and the Built Environment Science and Engineering		
Module(s):	Electrical and Electronic Engineering		
Level:	3	Credit Value:	3
Valid from:	31 <sup>st</sup> July 2021	Valid to:	31 <sup>st</sup> 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
3	Application of skills
7	Quality

LEARNING OUTCOMES	ASSESSMENT CRITERIA
<b>The learner will:</b>	<b>The learner can:</b>
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

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LEARNING OUTCOMES	ASSESSMENT CRITERIA
<b>The learner will:</b>	<b>The learner can:</b>
	2.3 Explain the phase angle relationship between two alternating quantities
	2.4 Define sinusoidal voltage in the form $V = V_M \sin \omega t + \phi$