

Module Code	ACDA4015
Title	Electronics Principles and Concepts
Date	24/02/2021
Level	4
Credits	10
Pre-Requisites	None

AIM(S)

- To provide the student with the fundamentals of electronics: definitions of voltage, current, resistance, Ohm's law, Power, circuit theorems.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

- Analyse simple circuits and networks using appropriate analysis tools.

INDICATIVE CONTENT

- Definitions of voltage, current, resistance, power and energy
- Ohm's Law
- Series and parallel connections of resistors
- Kirchhoff's Voltage Law and Kirchhoff's Current Law
- Potential and Current divider networks
- Circuit Theorems – Thévenin's and Norton's Theorems

Study Time Allocation

The study time for the module is divided as follows:

Activity type	Hours	Percentage
Scheduled learning	24	24%
Independent learning	76	76%
Placement learning	0	0%
TOTAL	100	100%

ASSESSMENT

Assessment Component 1

☐ Written exam ☒ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Portfolio	2000 words equivalent	100%

Assessment Summary

Activity type	Percentage
Written exam	0%
Coursework	100%
Practical	0%
TOTAL	100%

INDICATIVE READING LIST

Module Code	ACDA4015	
Module Title	Electronics Principles and Concepts	
Classification	Reading List entry	Electronic*
Essential	Bird, John (2014) - <i>Electrical circuit Theory and Technology, Fifth Edition</i> , Routledge	☒
Further	Floyd, Thomas L (2012) DC/AC Fundamentals: A Systems Approach Prentice Hall	☐
Further	Sinclair I. and J. Dutton., Practical Electronics Handbook, Newnes (2007)	☒