

Module Code	ACDA4022
Title	Workshop Skills for Electronics
Date	19/05/2025
Level	4
Credits	10
Pre-Requisites	None

AIM(S)

- To allow the students to develop workshop skills and practices conducive to a safe productive working environment.

LEARNING OUTCOMES

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

- apply workshop skills and demonstrate an understanding of components, practices, skills, safety, and standards;
- deploy test equipment to safely measure electrical and electronic quantities and to determine parameters within engineering systems.

AHEP 4.0 LEARNING OUTCOMES DEVELOPED

B1 Apply knowledge of mathematics, statistics, natural science and engineering principles to broadly-defined problems. Some of the knowledge will be informed by current developments in the subject of study.

B2 Analyse broadly-defined problems reaching substantiated conclusions using first principles of mathematics, statistics, natural science and engineering principles.

B3 Select and apply appropriate computational and analytical techniques to model broadly-defined problems, recognising the limitations of the techniques employed.

B9 Use a risk management process to identify, evaluate and mitigate risks (the effects of uncertainty) associated with a particular project or activity.

B12 Use practical laboratory and workshop skills to investigate broadly-defined problems.

B13 Select and apply appropriate materials, equipment, engineering technologies and processes.

B17 Communicate effectively with technical and non-technical audiences.

INDICATIVE CONTENT

- Workshop safety.
- Use of workshop tools and equipment.
- Use of oscilloscopes, function generators, multimeters etc.
- Component testing.

- Design and manufacture of an electronic assembly/sub-assembly using suitable design tools e.g. CAD.

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

(Tick one)

☐ Written exam ☒ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Coursework. e.g. Build a circuit with logbook	2000 Words equivalent	100%

Assessment Summary

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

INDICATIVE READING LIST

Module Code	ACDA4022	
Module Title	Workshop Skills for Electronics	
Classification	Reading List entry	Electronic*
Essential	Petruzzellis, T. (2004) 1 st edition, <i>Build Your Own Electronics Workshop</i> , McGraw Hill TAB	☐
Essential	In-house, PCB Design Notes, Workshop safety	☐