Module Definition Form (MDF)

Module code: MOD008114	**Version:** 4 **Date Amended:** 30/Oct/2023

1. Module Title
Engineering Design

2a. Module Leader
Jennifer Joseph

2b. School
SE: ARU College

2c. Faculty
Faculty of Science and Engineering

3a. Level
3

3b. Module Type
Standard (fine graded)

4a. Credits
15

4b. Study Hours
150

5. Restrictions

Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	N/A		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module intends to provide you with the necessary foundation in Engineering Design to progress to Engineering, Computer Science or Architecture degree programmes. This module will help you put your studies into context in the wider world, in particular by considering how different professions must collaborate in the world of work. In this element, you will consider a number of different design processes, and how they might be implemented by multi-disciplinary teams, as well as how the design activity fits within the wider business context.

6b. Outline Content

- Solution-Neutral Problem Statements
- Functions and Embodiments
- Requirements and Evaluation Criteria
- Concept Selection
- Conveying Engineering Information
- Creative Problem Solving
- Ethics and Professionalism
- Sustainability
- Group dynamics

6c. Key Texts/Literature

The reading list to support this module is available at: https://readinglists.aru.ac.uk/

6d. Specialist Learning Resources

Access to computer lab

7. Learning Outcomes (threshold standards)		
No.	**Type**	**On successful completion of this module the student will be expected to be able to:**
1	Intellectual, practical, affective and transferrable skills	Work effectively in a team to complete a multi-week project
2	Intellectual, practical, affective and transferrable skills	Develop, assess and produce several potential solutions to an engineering problem
3	Intellectual, practical, affective and transferrable skills	Produce a concise report summarising and critically evaluating a group project
4	Intellectual, practical, affective and transferrable skills	Produce and deliver a short presentation

8a. Module Occurrence to which this MDF Refers				
Year	**Occurrence**	**Period**	**Location**	**Mode of Delivery**
2025/6	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	**Hours**	**Learning Outcomes**	**Details of Duration, frequency and other comments**
Lectures	0	None	None
Other teacher managed learning	48	1-4	4 lecture hours per week x 12 teaching weeks
Student managed learning	102	1-4	Pre and Post session preparation, research, and writing tasks
TOTAL:	150		

9. Assessment for the above Module Occurrence					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
010	Practical	1 2 3 4	50 (%)	Fine Grade	30 (%)
Group project and presentation (up to 20 mins)					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
011	Coursework	1 2 3 4	50 (%)	Fine Grade	30 (%)
Report (up to 1500 words)					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:
(a) achieve the qualifying mark for each element of fine graded assessment as specified above
(b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]