Module Definition Form (MDF)

Module code: MOD008105	**Version:** 2 **Date Amended:** 06/Jun/2022

1. Module Title
Core Maths

2a. Module Leader
Vida Keshtvarz

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:			

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Core Maths is a course that ensures you will have the necessary basic mathematical skills required for your level 4 studies. By the end of the course, you will be able to carry out the basic mathematical manipulations and understand the relevant key concepts required in order to progress to your chosen degree course. Each mathematical concept will be introduced to you via a lecture, in which examples of how to use and apply the concept are demonstrated. You will then practise problems in a tutorial for each topic, using worksheets given out in advance of the sessions. The worksheets given to you will include problems applied to the various everyday scenarios to indicate the importance and applicability of mathematics to your future degrees. The subjects covered are a range of arithmetic skills, algebra, solving equations, probability and basic statistics.

6b. Outline Content

- Arithmetic: basic arithmetic and the correct order of mathematical manipulations; negative numbers; fractions; percentages; ratios; decimals; significant figures; scientific notation and indices
- Algebra: using symbols; brackets; solving linear equations; rearranging equations
- Data: graphic presentation; straight line equations
- Statistics: median, mode, mean; mean deviation, standard deviation; range
- Inequalities
- Areas and volumes of simple shapes
- Non-linear equations

6c. Key Texts/Literature

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

6d. Specialist Learning Resources

None

7. Learning Outcomes (threshold standards)		
No.	**Type**	**On successful completion of this module the student will be expected to be able to:**
1	Knowledge and Understanding	Perform arithmetic calculations, expressing numbers in different formats, manipulate algebraic expressions and apply mathematical formulae to solve equations and find areas and volumes
2	Knowledge and Understanding	Use basic statistics to interpret data
3	Intellectual, practical, affective and transferrable skills	Present data graphically
4	Intellectual, practical, affective and transferrable skills	Apply basic mathematical methods to solve simple scientific and technological problems

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	N/A	N/A
Other teacher managed learning	48	1-4	4 hours per week x 12 teaching weeks.
Student managed learning	102	1-4	Pre and post session preparation, reading and research. Other tasks as detailed in Module guide.
TOTAL:	150		

9. Assessment for the above Module Occurrence					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
010	Coursework	1 2 3 4	50 (%)	Fine Grade	30 (%)
In-class test (up to 1.5 hours)					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
011	Coursework	1 2 3 4	50 (%)	Fine Grade	30 (%)
In-class test (up to 1.5 hours)					

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]