

Module code: MOD003267	Version: 2 Date Amended: 12/Jun/2019
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1. Module Title
Quantification and Costing

2a. Module Leader
Ephraim Zulu

2b. School
School of Engineering and the Built Environment

2c. Faculty
Faculty of Science and Engineering

3a. Level
5

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:	None		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module intends to introduce an understanding and appreciation of the production of costs associated with a range of construction operations and projects. Students will therefore study the principles and methodology in the computation of construction costs throughout a projects life cycle, including relevant commercial factors and risk etc. This will involve identifying and assessing all direct and indirect costs related to construction works as well as an understanding of the factors required to be considered at tender adjudication. Students will also gain an understanding of the measurement and pricing of maintenance and repair work involved in the running and upkeep of buildings using the relevant measurement rules and recognised good practice. Students will also consider the use of Building Information Modelling within project development.

6b. Outline Content

- Understanding the need for costing throughout a construction projects life cycle from inception through to maintenance and repair and the processes used to produce these cost assessments.
- Researching sources of cost/price data and analysing this information to produce realistic and useful cost estimates.
- Assessing the major influences on cost and how these can be factored into cost predictions.
- Understanding how to identify and apply cost estimates to risk factors associated with construction projects.
- Understanding the principles and methodology of estimating and tendering.
- Measure and price maintenance and repair work in accordance with current measurement rules and good practice.
- Understand the use of Building Information Modelling within the development of construction projects

6c. Key Texts/Literature

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

6d. Specialist Learning Resources

Estimating Software
Building Cost Information

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	Demonstrate the relevant processes to produce cost estimates for construction works based on a variety of information.
2	Knowledge and Understanding	Recognise the factors that influence the costs/price of new building work and repair and maintenance., work along with an understanding of the sources of cost data for both.and an appreciation of the risk and commercial factors in construction works.
3	Knowledge and Understanding	Understand the potential and use of Building Information Modelling.
4	Intellectual, practical, affective and transferrable skills	Interpret construction cost information.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2026/7	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	12	1-3	1 hour formal lecture per week.
Other teacher managed learning	24	1-4	2 hour workshop/seminar/tutorial per week covering costing practices using appropriate case-studies.
Student managed learning	114	1-4	Minimum 9.5 hours per week.
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	1-4	50 (%)	Fine Grade	30 (%)
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Coursework	1-3	50 (%)	Fine Grade	30 (%)

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]