Module Definition Form (MDF)

Module code: MOD008166	**Version:** 1 **Date Amended:** 15/Jul/2021

1. Module Title
Risk, Value and Environmental Impact

2a. Module Leader
Ephraim Zulu

2b. School
School of Engineering and the Built Environment

2c. Faculty
Faculty of Science and Engineering

3a. Level
6

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:	BSc (Hons) Construction Management, BSc (Hons) Quantity Surveying		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module is designed to introduce the you to the management of risk, value and environmental impact of construction projects. The module will enable the you to distinguish between risk and uncertainty and the influence these issues may have on the technological, managerial and financial aspects of the project life cycle. You will be introduced to Value Engineering techniques along with the concept of Value management workshops and how these can be used throughout the project life cycle, case studies will be used to enhance your understanding along with identifying the key issues relating to the use of Value Engineering throughout the project life cycle. You will be introduced to the concept and use of the risk management workshop, and how these workshops are used to identify and distribute project risks to members of the project team throughout the project life cycle. You will also be introduced to the importance of reducing and managing the environmental impact of construction projects during the design and construction phases as well as through the whole project life-time. Legislation and other pressures for the protection of the environment are considered, including pollution control and environmental impact assessment. The module is of a practical nature using case studies to enhance the student experience and provide a greater understanding and appreciation of Risk, Value and Environmental Impact over the project life cycle.

6b. Outline Content

Knowledge and Understanding

- Risk and Uncertainty,
- The risk management process,
- Identification of generic and project specific risks,
- Techniques available for dealing with project risks including the use of case studies.
- Origins of value management,
- Use of the Value management workshop,
- Value engineering techniques, theory and practical workshops.
- Planning for sustainable built environment: strategic and project environmental impact assessment, sustainable drainage systems, working patterns, sustainable transport systems, waste management, energy management
- Economic considerations of environmental management: influence of climate change levy, landfill tax, aggregates tax and other fiscal measures, incorporation of environmental costs and benefits into economic analysis

Skills Analysis

- Production and use of Project Risk Registers including the ability to identify project risks, analyse risk and provide mitigation measures.
- Provide value management recommendations and undertake value engineering to make realistic recommendations to improve project value.

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	Distinguish between Risk and Uncertainty
2	Knowledge and Understanding	Evaluate the different techniques used in Value Management studies.
3	Knowledge and Understanding	Understand the environmental impact of construction projects and need for environmental management.
4	Intellectual, practical, affective and transferrable skills	Identify, evaluate and plan the management of generic and project specific risks and environmental factors.

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	24	1-4	2 hours a week
Other teacher managed learning	12	1-4	Case Study Exercises - 1 hour a week
Student managed learning	114	1-4	Private Study
TOTAL:	150		

9. Assessment for the above Module Occurrence

The assessment for some modules includes a presentation (see below for details on how this particular module is assessed). We recognise that presenting, especially to a large group, can cause significant anxiety or distress for some students. If this may affect you, please contact your Module Leader or the Disability and Neurodiversity Service as early as possible. We will work with you to consider appropriate reasonable adjustments. Depending on your individual needs, these might include, for example, presenting to a smaller group or presenting only to a member of academic staff.

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	1,3,4	50 (%)	Fine Grade	30 (%)
Coursework (1500 words)					

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Coursework	2	50 (%)	Fine Grade	30 (%)
Coursework (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]