Module Definition Form (MDF)

Module code: MOD002407	**Version:** 6 **Date Amended:** 20/Jan/2021

1. Module Title
Sustainability and Environmental Management

2a. Module Leader
Negar Ahmadpoor

2b. School
School of Engineering and the Built Environment

2c. Faculty
Faculty of Science and Engineering

3a. Level
7

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

Construction of the built environment has a major impact on the environment, which is reflected in a growing body of legislation, policies and initiatives to reduce or manage this impact. Sustainable development and the effective management of environmental impacts are at the top of the political agenda for action at global and local levels. The need to understand the demands of the environment and sustainability is now an essential part of the construction manager's work. Integrating these influences and demands into the design and management of construction work is vital for the environmental, economic and social welfare of society. The Module aims to develop an understanding of the history and current position with regard to the environment and sustainability and to explore the interaction between society, construction and the environment. The module will establish the historical context of sustainable development and discuss future developments. Students will develop a systematic understanding of environmental issues and concepts of sustainable development in relation to the construction industry. A broad understanding of the pressures facing companies to address environmental and sustainable development issues will be discussed, together with an overview of the strategies and practices needed to address environmental and sustainable development. Students will examine the assessment of projects in terms of environmental and social sustainability, life-cycle costs and finance; the whole financial cycle associated with a project, building on topics included elsewhere such as planning techniques and risk management will be covered. The module will challenge students to transfer the broad ideas and principles of sustainability and environmental management and to implement these at a site level in the management of the construction projects. Sustainable development and environmental concerns will be examined and ways in which these can be integrated into the day-to-day management of construction will be considered. A range of evaluation and monitoring techniques - such as environmental management systems, sustainability indicators and corporate environmental and sustainability reporting will be discussed.

6b. Outline Content

Knowledge Based
- Relationships between human activity, the built environment and the environment
- International and national environmental policies and trends
- Historical context of sustainable development
- Sustainable technology and development
- Planning for sustainable built environment
- Environmental management systems and measures for construction
- Sustainability and whole-life assessment
- Management of waste and recycling
- Legislation and other issues affecting construction and the built environment

Skills Based
- Environmental assessment and performance measurement techniques

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	Demonstrate a critical understanding of the historical development and current position of environmental issues and sustainable development.
2	Knowledge and Understanding	Understand the environmental, technological, social and economic dimensions of environmental and sustainable development issues facing construction organisations.
3	Knowledge and Understanding	Manage the environmental aspects of construction work.
4	Intellectual, practical, affective and transferrable skills	Critical analysis and evaluation of complex situations.

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	18	1,2,3	12 x 3 hour sessions (lectures, seminars and tutorials) or all delivered during a one week block (36 hours of lectures, structured workshops and tutorials).
Other teacher managed learning	18	1,2,3	12 x 3 hour sessions (lectures, seminars and tutorials) or all delivered during a one week block (36 hours of lectures, structured workshops and tutorials).
Student managed learning	114	4	9.5 hours per week over one semester or during the one week block and between blocks covering other reading, independent peer discussion, preparation for assessment task.
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	30 (%)	Fine Grade	30 (%)
Assignment: 1000 words					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
011	Coursework	1-4	70 (%)	Fine Grade	30 (%)
Assignment: 2000 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]