Module Definition Form (MDF)

Module code: MOD002341	**Version:** 4 **Date Amended:** 17/Jun/2019

1. Module Title
Conversion and Adaptation of Buildings

2a. Module Leader
Richard Brett

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:	None		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

The key aim of studies in this module will be to develop an understanding of user needs in relation to economic re-use of existing buildings by extending, adapting, altering and conserving buildings. This module has been designed to enable students to use a typical building to demonstrate principles and criteria to be applied to achieve a holistic approach to the future treatment of a building over its whole life-cycle; enhancement and/or conservation of built environment; appropriate and creative technology and specialist economic appraisals. Students complete an in-depth case study either individually or as a group. The student will need to be aware of the concepts of extension, conversion and adaptation of existing buildings, and maximisation of economic viability of buildings together to enhance user needs, modern design concepts, landscaping, environmental and green issues together with low energy issues and sustainability. Students will need to study aspects of architectural periods and types of building including components and materials of construction commonly used in the types of building under study and life-cycle options. It will be important for students to acquire a range of analytical skills to enable them to measure existing and proposed building performance from a number of standpoints and be in a position to select a range of re-use options which can be employed by a building owner. Ancillary to this aim will be the acquisition of a critical awareness of the construction options available to a building owner seeking to maximise the economic viability of a building and be aware from detailed reading and research how new works, alteration and adaptation can enhance use of an existing building.

6b. Outline Content

- Historical social, technical, economic and legislative effects on buildings (knowledge base) - Architectural history, history and construction buildings (knowledge base) - The use of information technology in building research and practice (knowledge base) - Understanding issues of design detailing landscaping, sustainability, low energy technology. (knowledge base skills base) - Understanding obsolescence and deterioration in buildings and building materials and how extension, alteration, adaptation and conservation of a building can enhance economic viability (knowledge base and skills) - Developing a critical awareness of building owner user-needs utilising a professional, multi-disciplinary approach, providing quality of process/product/service to meet client requirements (knowledge base and skills base) - Developing a range of re-use options (knowledge base skills base) - Preparing a scheme for extending, adapting and conserving a building, including new design detail, materials and life-cycle costings (knowledge base skills base) - Interpersonal and group processes (knowledge and skills base)

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	Possess a knowledge of the building work and processes associated with conversion of existing structures for a variety of uses and understand how to apply design concepts and the economic use of materials including life-cycle options.
2	Knowledge and Understanding	Employ a range of skills and knowledge in understanding standards and regulations related to the development and use of buildings including environmental issues and heritage status.
3	Intellectual, practical, affective and transferrable skills	Critically appraise by means of a case study how an existing building can be extended, altered and conserved evaluating user needs and analysing economic re-use options and practicalities.
4	Intellectual, practical, affective and transferrable skills	Develop plans for extending, adapting, refurbishing, rehabilitating and/or conserving buildings demonstrating a holistic approach in applying principles and criteria to provide quality through design with appropriate and creative technology and life-cycle economy.

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	3 hrs per wk over one semester split into 2 hr lecture & 1 hr workshop including field visits.
Other teacher managed learning	12	1-4	3 hrs per wk over one semester split into 2 hr lecture & 1 hr workshop including field visits.
Student managed learning	114	1-4	10 hrs per wk over one semester. Students are encouraged to use AutoCad.
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	1-4	100 (%)	Fine Grade	30 (%)

Report : 3000 word equivalent. Including A1 presentation board per student. This module is designed for group work.

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]