

MODULE DESCRIPTOR

Module Title

Advanced Architectural and Material Technology

Reference	SU4502	Version	1
Created	August 2023	SCQF Level	SCQF 10
Approved	January 2024	SCQF Points	30
Amended		ECTS Points	15

Aims of Module

To enable students to evaluate the aesthetic intentions and performance requirements of elements of advanced building construction within the context of current innovative and material technology. To enable students to understand the need for healthy materials in buildings.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Examine the sub-assemblies components and materials involved in a product and the manner in which they are fitted together.
- 2 Critique the information against a theoretical stance of a product, assembly or material and develop innovative ways of application, adoption and/or product development/process
- 3 Understand modern methods of construction that future proofs the construction industry and demonstrate how it could be applied in industry.
- 4 Develop knowledge on materials in the industry that adopt a sustainable approach and/or illustrate a healthy approach to the environment.

Indicative Module Content

The module provides practical guidance on the analysis of the effects of detailing, technical standards and their visual and aesthetic implications, and choice of materials, components and subassemblies, on the practical issues involved in construction. It involves the systematic study of architectural details selected by students in consultation with staff from the work of nationally and internationally recognised designers.

Module Delivery

This is a workshop/seminar-based course. Students select the details they wish to study. They are advised on their choice by staff and receive tutorials in studio to assist them in the interpretation of the information they collect. Students make regular seminar presentations to staff and other students. A substantial part of the module is devoted to studio-based student centred learning and library research. Presentations will be used to discuss work completed to staff typically in a Poster format or digitally.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	77	N/A
Non-Contact Hours	223	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	The coursework consists of a investigative construction project and the submission will include a physical model with portfolio that will include annotated drawings and any mathematical study in support of investigation.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The overall module grade is based on 100% weighting of (Coursework). An overall minimum grade D is required to pass the module. Non-submission will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A
B	B
C	C
D	D
E	E
F	F
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None, in addition to Stage 4 entry requirements.
Corequisites for module	None.
Precluded Modules	None.

ADDITIONAL NOTES

Where appropriate mixed discipline team working will be encouraged.

INDICATIVE BIBLIOGRAPHY

- 1 Wienand, N. Materials, Specification and Detailing. Taylor & Francis. 2008.
- 2 Heisel, F etal. (2022) Circular Construction and Circular Economy, Birkhauser
- 3 Various articles and publications from source such as SEDA and Cradle to Cradle website and products.
- 4 McDonough, W (2009) Cradle to Cradle, Vintage