

## MODULE DESCRIPTOR

### Module Title

Building Technology 3

Reference	SU2002	Version	10
Created	January 2023	SCQF Level	SCQF 8
Approved	July 2002	SCQF Points	15
Amended	July 2023	ECTS Points	7.5

### Aims of Module

To provide the student with the ability to understand and apply the key principles of construction techniques, construction detailing, built asset maintenance, refurbishment, renovation and 3D modelling and associated data management.

### Learning Outcomes for Module

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

- 1 Explain and apply the principles of construction detailing and relate them to medium size buildings and associated legislation.
- 2 Assess the sources and causes of decay in buildings.
- 3 Apply the appropriate maintenance, refurbishment and rehabilitation process.
- 4 Explain the influence of building maintenance on building design, components and elements.
- 5 Explain and apply the principles of 3D modelling and data management to medium size buildings and associated legislation.

### Indicative Module Content

Structure and construction principles in contemporary use will be explored and applied in details, along with a range of materials and new methods of construction. Understanding and application of 3D modelling and the principle of data management (BIM) are introduced. Building maintenance, refurbishment and rehabilitation requirements will be assessed along with the requirements for any temporary works including a brief introduction to conservation issues. The module also introduces the reasons for deterioration and defects in buildings and will explore the relevant legislation relating to this topic. Remediation processes. Relevant legislation relating to the topics covered will be identified and reviewed.

### Module Delivery

This is a lecture based module supplemented with tutorials, workshops and practical work which includes, simulations, fieldwork and/or site visits. A substantial part of the module is devoted to student centred learning and private study in the form of directed reading to building journals, core texts and resource material.

### Indicative Student Workload

	Full Time	Part Time
Contact Hours	40	N/A
Non-Contact Hours	110	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	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, 5
Description:	This assessment is in a technical booklet format with a presentation. The booklet demonstrates understanding and application of existing building performance, refurbishments of buildings, maintenance, decay and temporary works. The presentation with supporting documentation demonstrates understanding and application of construction detailing through the generation of accurate detail drawing and material specification to a professional standard through practical skills of BIM and design data management.				

### MODULE PERFORMANCE DESCRIPTOR

#### Explanatory Text

The overall module grade is based on 100% weighting of the Component (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:
<b>A</b>	A
<b>B</b>	B
<b>C</b>	C
<b>D</b>	D
<b>E</b>	E
<b>F</b>	F
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

### Module Requirements

Prerequisites for Module	None, in addition to Stage 2 entry requirements.
Corequisites for module	None.
Precluded Modules	None.

**ADDITIONAL NOTES**

Where appropriate mixed discipline team working will be encouraged.

**INDICATIVE BIBLIOGRAPHY**

- 1 Addleson L, Building Failures: A Guide to Diagnosis, Remedy and Prevention, Butterworht Architectural, Oxford. (1992)
- 2 Seeley I H, Building Maintenance, MacMillan Educational Ltd, London. (1991)
- 3 Foster J. S. & Greeno R., Structure and Fabric, Part 2, Mitchell's Building Series, Prentice Hall; 7 edition. (2007)
- 4 Building Information Modelling For Dummies by David Philp et al, 2015 John Wiley publishers.
- 5 Getting to grips with BIM: a guide for small and medium-sized architecture, engineering and construction firms Authors: Harty James, Kouider Tahar, Paterson Graham. Routledge (2016, ISBN:9781138843974