

MODULE DESCRIPTOR

Module Title

Building Pathology

Reference	SU3051	Version	3
Created	April 2023	SCQF Level	SCQF 9
Approved	July 2018	SCQF Points	30
Amended	June 2023	ECTS Points	15

Aims of Module

To provide the student with the ability to critically analyse and diagnose the mechanisms of decay and deterioration of buildings and to devise remedial strategies for repair, maintenance and rehabilitation works with a view to prolonging the life of a building.

Learning Outcomes for Module

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

- 1 Assess the detailed pathology of buildings and the related defects, causes and remedies.
- 2 Demonstrate knowledge of different types of testing and their limitations in order to select appropriate methods.
- 3 Interpret the causes of failures and propose appropriate remedial measures.
- 4 Assemble knowledge and information gathered from inspection(s) to produce schedule(s) of work.
- 5 Critically review the core contents of the module and relate to their application within the work place?including ethical, professional, and sustainable practices and professional attributes.

Indicative Module Content

This module will explore the process associated with biological, chemical and physical building deterioration. The student will study the process of inspection, diagnosis and prognosis of building defects and prepare a number of repair strategies. This module will also explore how the deterioration of the different elements of the building are interconnected and often lead to progressional failure. The module will investigate different levels of intervention strategies and how they are influenced by client restrictions as well as the building's functional, performance, user and statutory requirements. Health and safety of occupants will be investigated within the context of hazardous and deleterious materials and students will investigate their statutory responsibilities when they are required to deal with such materials. Financial planning of maintenance budgets will be explored.

Module Delivery

The module is delivered in Blended Learning mode using structured online learning materials/activities and directed study, facilitated by regular online tutor support. Workplace Mentor support and work-based learning activities will allow students to contextualise this learning to their own workplace. Face-to-face engagement occurs through annual induction sessions, employer work-site visits, and modular on-campus workshops.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	30	N/A
Non-Contact Hours	30	N/A
Placement/Work-Based Learning Experience [Notional] Hours	240	N/A
TOTAL	300	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>	240	

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:	An integrated assignment consisting of illustrated written work to demonstrate understanding and application of the module learning outcomes and reflecting on the learning development throughout the module weeks that involves theory and practice.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The overall module grade is based on 100% weighting of Component 1 (assignment). 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.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 Delgado, Joa?o M. P. Q. (2020). Building pathology, durability and service life, Springer
- 2 Delgado, Joa?o M. P. Q., (2021). Case studies of building rehabilitation and design, Publisher, Cham, Switzerland : Springer
- 3 Delgado, Joa?o M. P. Q., (2022) Masonry : building pathologies and design, Publisher, Cham : Springer
- 4 Ferreira, C., Silva, A., Brito, Jorge de., Flores-Colen, Ine?s. (2023). Maintainability of building envelope elements : optimizing predictive condition-based maintenance decisions Springer series in reliability engineering
- 5 Gaggero, L., Ferretti, M., (2018) The Self-sustained High temperature Synthesis (SHS) technology as novel approach in the management of asbestos waste. Journal of environmental management, Vol.216, p.246-256, Elsevier Ltd England