

MODULE DESCRIPTOR

Module Title

Environment and Services 1

Reference	SU2019	Version	3
Created	July 2021	SCQF Level	SCQF 8
Approved	May 2019	SCQF Points	15
Amended	September 2021	ECTS Points	7.5

Aims of Module

To provide the student with the ability to learn and apply the principles of building services systems for low/medium rise buildings.

Learning Outcomes for Module

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

- 1 Explain relevant technical principles in respect of building services systems and components, and their impact on sustainable construction.
- 2 Recognise the influence of environment and services on the design, construction and operation of low rise buildings.
- 3 Apply knowledge of fundamental principles of renewable building services to low rise buildings.

Indicative Module Content

The module provides an understanding of the principles and applications for the following systems: heating systems; hot and cold water supply, above and below ground drainage; electrical and gas installation. The principles of services distribution and integration in a building are outlined. Services installation in historic buildings. The module allows students to develop experience in collaborative practice via teamworking. Students will be assessed on their understanding of the impact of building services on the reduction of carbon emissions.

Module Delivery

This module is taught through a series of workshops exercises leading to the application of a coherent environment and services strategy to a particular building type supported by material delivered through Moodle (short videos, targeted reading list, online material and selected bibliography). A substantial part of the module is devoted to student centred learning working collaboratively in groups or individually, and appropriate evaluation tools will be used. Directed reading to services journals, core texts and resource material is encouraged.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	45	N/A
Non-Contact Hours	105	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
Description:	One piece of significant project coursework comprising group work and individual work demonstrating application of learning.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

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

ADDITIONAL NOTES

Where appropriate mixed discipline team working will be encouraged. Reports may be assessed as coursework or by interview panel.

INDICATIVE BIBLIOGRAPHY

- 1 Chadderton, D. K., Building Services Engineering (2012).
- 2 McMullan, R., Environmental Science in Building, 7th Edition. (2012)
- 3 Hall F & Greeno R, Building Services Handbook, Routledge 2017.