

This Version is No Longer Current
The latest version of this module is available [here](#)

MODULE DESCRIPTOR

Module Title

Environment and Services 2

Reference	SU3029	Version	2
Created	June 2017	SCQF Level	SCQF 9
Approved	September 2015	SCQF Points	15
Amended	September 2017	ECTS Points	7.5

Aims of Module

To develop a detailed and practical understanding of building services in the context of non-domestic buildings.

Learning Outcomes for Module

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

- 1 Assess the services required to enable non-domestic buildings to operate successfully.
- 2 Appraise the range of options available for the provision of renewable power.
- 3 Identify and design the infrastructure required to facilitate the installation and operation of building services in non-domestic buildings.

Indicative Module Content

This module will elaborate on the knowledge gained in the stage 2 Environment and Services module. The range of building services which are required to enable non-domestic buildings to operate will be examined alongside the physical infrastructure which is required to facilitate them. The students will also be required to identify and specify a range of appropriate renewable solutions for various non-domestic buildings. Topics include: hot and cold water supply, heating, electrical and data supply, advanced drainage systems, mechanical cooling systems, ventilation and ducted services, renewables, mechanical handling devices, fire protection and detection, Services infrastructure.

Module Delivery

The module will be delivered using a blend of key lectures and tutorials which will allow students to apply their knowledge to a range of scenarios. Part of the module is devoted to student centred learning, computer exercises and private study. Directed reading to services journals, core texts and resource material is encouraged.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	35	N/A
Non-Contact Hours	115	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:	This coursework comprises a portfolio dealing with the services requirements of a non-residential building. The portfolio is expected to contain written and graphical evidence of research and application of knowledge.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

In order to pass the module students must achieve 40% or greater.

Module Grade	Minimum Requirements to achieve Module Grade:
A	70% or better
B	60% or better
C	50% or better
D	40% or better
E	35% or better
F	Less than 35%
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	SU2003
Corequisites for module	None Required
Precluded Modules	None.

ADDITIONAL NOTES

Where appropriate mixed discipline team working will be encouraged.

INDICATIVE BIBLIOGRAPHY

- 1 Chadderton, D. V. (2013), Building Services Engineering, 6th Edition, Taylor and Francis
- 2 Chartered Institute of Building Services Engineers, (2013), Refurbishment of non-domestic buildings: TM53, CIBSE
- 3 Hall, F and Greeno, R. (2015) Building Services Handbook, 8th Edition, Routledge
- 4 Harrison, H.W. Trotman, P.M. (2000) Building Services: Performance, Diagnosis, Maintenance, Repair and the Avoidance of Defects, BRE Building Elements Series, BRE Press