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Title: CONSTRUCTION TECHNOLOGY AND SERVICES 2  
Status: Definitive  
Code: **5109BEUG** (118122)  
Version Start Date: 01-08-2021  
Owning School/Faculty: Civil Engineering and Built Environment  
Teaching School/Faculty: Civil Engineering and Built Environment

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**Academic Level:** FHEQ5      **Credit Value:** 24      **Total Delivered Hours:** 72  
**Total Learning Hours:** 240      **Private Study:** 168

### Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	72

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Report	30	
Test	AS2	Test	20	
Test	AS3	An 8he practical assessment	50	

### Aims

*To explain and analyse the construction techniques of framed multi-storey buildings.  
To enable students to evaluate the relative merits of the various construction forms in any given situation*

*To introduce the technology of building services installations for commercial and industrial buildings.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Analyse and illustrate the various forms of superstructure construction for low and high rise building structural frames.
- 2 Describe and evaluate the various forms of foundations and substructure work for multi-storey buildings.
- 3 Explain the typical remedial works to multi-storey buildings during refurbishment and adaptation work.
- 4 Analyse the importance of sustainability in the context of the design and construction of multi storey buildings.
- 5 Evaluate modern methods of construction and new renewable energy technologies in relation to industrial and commercial buildings.
- 6 Describe the range of Heating, Ventilating and Air Conditioning systems for industrial and commercial buildings.
- 7 Describe the installation and integration of utility services to multi-storey buildings.

## **Learning Outcomes of Assessments**

The assessment item list is assessed via the learning outcomes listed:

Report	1	2	
Test	6	7	
An 8 hr practical assessment	3	4	5

## **Outline Syllabus**

*High and low rise framed building solutions with particular emphasis on:-*

*Demolition:*

*Site Problems:*

*Substructure:*

*Basements:*

*Structural Frames:*

*Floors:*

*External Walls:*

*Roofs:*

*Internal Access:*

*Buildings and Fire:*

*Service Integration:*

*Sustainable, Intelligent Buildings:*

*Refurbishment Technologies:*

*Building Services:*

*Health and Safety*

## **Learning Activities**

Lectures and tutorial workshops, supported where possible with site visits, guest lectures and videos.

Students should supplement their lecture notes with background reading; journals, digests, trade literature and also use the material that is available through electronic databases and manufacturers literature.

## **Notes**

This module concerns the construction principles and processes associated with commercial buildings.

Students will discover that by achieving the learning outcomes as identified above their knowledge is reinforced through other associated modules.

This construction knowledge will assist students in other modules at both levels 5 and 6 and provide a suitable platform from which to launch their career into property/construction industry.