

## Liverpool John Moores University

Title: CONSTRUCTION TECHNOLOGY & PRACTICE  
Status: Definitive  
Code: **5108BEUG** (118118)  
Version Start Date: 01-08-2019  
Owning School/Faculty: Built Environment  
Teaching School/Faculty: Built Environment

Team	Leader
Laurence Brady	Y

**Academic Level:** FHEQ5  
**Credit Value:** 24  
**Total Delivered Hours:** 74  
**Total Learning Hours:** 240  
**Private Study:** 166

### 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
Exam	AS1	Examination	50	2
Test	AS2	Test 1	25	
Test	AS3	Test 2	25	

### Aims

*To develop understanding of construction techniques associated with the production of high and low rise framed buildings, both new build and refurbishment.*

*To develop an understanding of the variety of design solutions available for the construction of 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 construction and civil engineering solutions available for low and high rise building structural frames.
- 2 Evaluate the restrictions that are imposed on building design by the need to comply with legislation concerning health and safety, built form and sustainability.
- 3 Compare and contrast different design solutions and methods of construction used for high-rise and low-rise framed buildings.
- 4 Analyse the importance of sustainability in the context of the design and construction of buildings.
- 5 Evaluate the impact of new technologies on current construction and civil engineering processes for industrial and commercial buildings, and infrastructure.
- 6 Compare and contrast alternative solutions for mechanical and electrical services and utilities services in industrial and commercial buildings.

## **Learning Outcomes of Assessments**

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

EXAMINATION	2	3	5
TEST 1	1	4	
TEST 2	6		

## **Outline Syllabus**

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

*Demolition: Site Set Up and Options*

*Site Problems: Contamination and Remediation*

*Substructure: Foundations*

*Basements: Types and Grades*

*Structural Frames: Types and Advantages*

*Floors: Upper Floors*

*External Walls: Claddings*

*Roofs: Structures and Coverings*

*Internal Access: Stairs and Mechanical Access Provision*

*Buildings and Fire: Active/Passive Measures of Protection*

*Service Integration: Structural and Non-Structural Methods*

*Control of the Internal Environment: Moderation and Control*

*Sustainable, Intelligent Buildings: Design, Use and Management*

*Civil Engineering Construction Walls, Bridges Road Construction Retaining*

*Building Services: large commercial buildings HVAC, Utilities and Services to*

*Health and Safety statements Risk assessment and method*

*CDM Construction H and S legislation*

*Note: Standards and Regulations pertinent to all the above will be duly considered  
Elements will be considered with regards to function, performance, durability, cost  
and aesthetics*

## **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 re-in forced through other associated modules.

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