Liverpool John Moores University

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Title:	CONSTRUCTION TECHNOLOGY & PRACTICE
Status:	Definitive
Code:	5508BEKL (119113)
Version Start Date:	01-08-2019

Owning School/Faculty:	Built Environment
Teaching School/Faculty:	Imperia Institute of Technology

Team	Leader
Martin Turley	

Academic Level:	FHEQ5	Credit Value:	24	Total Delivered Hours:	86
Total Learning Hours:	240	Private Study:	154		

Delivery Options

Course typically offered: Non Standard Year Long

Component	Contact Hours
Lecture	56
Tutorial	28

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1		50	2
Test	AS2		25	
Test	AS3		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.
- 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	Risk assessment and method		
statements CDN	A 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.