Liverpool John Moores University

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Title:	CONSTRUCTION TECHNOLOGY & REFURBISHMENT
Status:	Definitive
Code:	**5127BEUG** (120041)
Version Start Date:	01-08-2016
Owning School/Faculty:	Built Environment
Teaching School/Faculty:	Built Environment

Team	Leader
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Academic Level:	FHEQ5	**Credit Value:**	24	**Total Delivered Hours:**	75
Total Learning Hours:	240	**Private Study:**	165		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	48
Tutorial	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Drawing	Drawing based assignment	30	
Portfolio	Report	Drawings and Report	20	
Exam	Exam	Closed book	50	3

Aims

The main aim of this module is for students to develop an in depth understanding of the techniques used to construct the structure and fabric of multi storey and large span commercial and industrial buildings. In addition students will gain the

opportunity to develop the necessary skills to communicate construction details to different stakeholders. Students will also develop knowledge of health and safety issues related to different types of construction and compare the environmental impact of alternative forms of construction.

Learning Outcomes

After completing the module the student should be able to:

1	Analyse and illustrate the various construction 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 occupant 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	Evaluate the most suitable technologies for the maintenance, conversion and refurbishment of buildings in given scenarios.
5	Analyse the importance of sustainabilty in the context of the design and constructionof buildings.
6	Evaluate the impact of new technologies on current construction processes for industrial and commercial buildings.

Learning Outcomes of Assessments

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

Drawing based assignment	1	2	5
Drawings and Report	3	4	5
Closed book	5	6	

Outline Syllabus

High and low rise framed building solutions with particular emphasis on:
Substructure, foundations and basements.
Structural frame types.
Wall claddings.
Roof structures and coverings.
Integration of services using structural and non-structural methods.
Potential site problems and contaminated land remediation.
Issues associated with moderation and control of the internal environment.
Intelligent and sustainable building design, use and management.
The technology of refurbishment, conversion, maintenance and demolition.

Learning Activities

Lectures

Tutorials
Independent study

Notes

The module provides the student with a broad understanding of the construction solutions applied for high and low rise framed buildings. It is reflective of the issues that need to be considered with respect to building performance and efficiency. Energy efficiency, and other environmental aspects of construction are examined. User efficiency and matters affecting productivity are addressed. Buildings in use and refurbishment of exisitng buildings are covered in detail.