Liverpool John Moores University

Title:	BUILDING DESIGN AND TECHNOLOGY
Status:	Definitive
Code:	**4123BEUG** (120875)
Version Start Date:	01-08-2015
Owning School/Faculty:	Built Environment
Teaching School/Faculty:	Built Environment

Team	Leader
John Gammon	Y

Academic Level:	FHEQ4	**Credit Value:**	24.00	**Total Delivered Hours:**	75.00
Total Learning Hours:	240	**Private Study:**	165		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	37.500
Tutorial	37.500

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	AS2	TEST 1	30.0	
Test	AS3	TEST 2	30.0	
Report	AS1	REPORT	40.0	

Aims

To introduce the student to construction techniques associated with the production of low rise domestic dwellings and high and low rise commercial and industrial framed buildings, both new build and refurbishment.

To introduce the technology of sustainable building construction and retrofit building fabric and services installations for commercial and industrial buildings to improve

environmental performance, and evaluate the impact on the long term financial viability of such installations.

Learning Outcomes

After completing the module the student should be able to:

1	Identify the various construction solutions available for low rise domestic buildings and understand the correct terminology.
2	Describe and illustrate the various construction solutions available for low rise domestic buildings.
3	Describe and illustrate the various construction solutions available for low and high rise structural framed commercial buildings.
4	Compare and contrast different design solutions and methods of construction used for high-rise and low-rise commercial buildings and determine the most appropriate techniques in given scenarios.
5	Evaluate and describe the most suitable technologies for the maintenance, conversion and refurbishment of buildings in given scenarios.
6	Apply principles of sustainable construction design and construction in a given scenario.
7	Describe and discuss principles of sustainable construction.

Learning Outcomes of Assessments

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

TEST 1	1	2	6	
TEST 2	1	2	6	
REPORT	3	4	5	7

Outline Syllabus

• Domestic buildings- design and production issues, foundations, external envelope and openings, floors, internal walls, domestic services and installation. These elements will be considered with regards to function, performance, durability and aesthetics.

• Commercial and industrial buildings- foundations and basements, structural frame types, wall claddings, roof structures and coverings, internal access provision including mechanical access provision, fire alarm, detection and fighting systems and passive measures used for protecting buildings from fire, integration of services using structural and non-structural methods.

• Intelligent and sustainable building design, use and management.

• The technology of refurbishment, conversion and maintenance.

Learning Activities

Lectures and guest speakers

Notes

This module is relevant to understanding the construction methods and design of buildings to enable effective management and delivery of facilities services.