

Liverpool John Moores University

Title: CONSTRUCTION TECHNOLOGY
Status: Definitive
Code: **4500ICBTBS** (126977)
Version Start Date: 01-08-2021

Owning School/Faculty: Civil Engineering and Built Environment
Teaching School/Faculty: ICBT, Colombo

Team	Leader
Alison Cotgrave	Y

Academic Level: FHEQ4 **Credit Value:** 15 **Total Delivered Hours:** 62
Total Learning Hours: 150 **Private Study:** 88

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	45
Tutorial	15

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Investigative report (1500 words)	30	
Exam	AS2	Written examination (Closed book)	70	2

Aims

Aim(s) of the module is to introduce the student to construction techniques associated with different types of buildings including building regulations and building services. To develop an understanding of the performance of buildings and the influence of materials and workmanship specification on performance.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify the technology of various types of buildings, form of substructures & superstructures, principles of building structural element planning & designing.
- 2 Describe principles of spatial planning to achieve basic functional requirements of various type of buildings.
- 3 Describe on methods and techniques of external works of all types of buildings & landscaping work in building sites.
- 4 Recognise specifications and standards for building works, structural designing and building services of various type of building, and apply various legislative requirements for internal spatial planning and design development requirements of local authorities & regulatory bodies.

Learning Outcomes of Assessments

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

Investigative report	1		
Written examination	2	3	4

Outline Syllabus

Substructure – foundations of the forms of strip, raft and pile foundations for all types of buildings. Mechanical plant used in substructure work. Excavations. Health and Safety in excavation work. Site investigations for building sites. (Dealing with trees on site, high water tables, contaminated land etc.)

Superstructure – Ground floor construction – suspended and solid floors. External Cavity Wall Construction. Concrete and Steel Frame Construction. Pitched roofs – trussed rafters and purlin roofs. Flat Roofs. Mid rise and high rise building construction.

Secondary Elements and Finishes – stair construction. Door and Window construction and fixing. Internal partitions. Dry lining of walls. Plaster boarding of ceilings. Sand and cement and asphalt screeds. Timber floor finishes. Floor and wall tiling. Painting timberwork. External cladding and rendering.

Internal Space planning, anthropometrics and ergonomics. Ventilation, building partitioning, suspended ceilings & raised floors. Service core designing.

Statutory legislative requirements for building planning, design, internal spatial planning, site development and disability access (Local & international)

Learning Activities

Students will be supported in their learning, to achieve the above learning outcomes,

in the following ways:

By a series of lectures and tutorials and through participation within practical sessions for problem solving.

Self-managed investigative study to analyse cases related to the industry.

Workshops, industry speakers and industry scenarios are key features of this module.

A recommended resource list - indicating key reading, internet support and physical learning assistance, is provided to help enable students to undertake self-directed study.

Notes

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