

Liverpool John Moores University

Title: CIVIL CONSTRUCTION TECHNOLOGY (CCT)
Status: Definitive
Code: **5502ICPDQS** (127002)
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: FHEQ5
Credit Value: 15
Total Delivered Hours: 45
Total Learning Hours: 150
Private Study: 105

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	15
Tutorial	30

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Coursework (3500 words)	100	

Aims

Aim(s) of the module is to introduce modern building construction technology, forms of buildings structures, building structural element design, internal special planning, finishing & related services and to demonstrate an understanding of environmental friendly building design principles to meet regulatory standards. This module focuses on the technology of low-rise & multi-storey residential, commercial & institutional buildings designed for both private and public use.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify & explain the technology of various types & forms of civil engineering structures & principles of structural planning, designing & integration.
- 2 Demonstrate the knowledge on the use of specifications and standards for civil engineering works of various types of civil engineering structures.
- 3 Appraise the principles of various structural designs & elements to achieve functional requirements of various types of civil engineering structures.
- 4 Examine various problems & complexities of civil engineering design & integration and alternative design solutions to overcome such complexities.

Learning Outcomes of Assessments

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

Coursework	1	2	3	4
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Outline Syllabus

Note: Tutor must address below indicative content applies to various type of buildings such as low-rise & multi-storey residential/commercial & institutional buildings designed for both private and public use;

Site evaluation and investigation for foundation design

Steel form of structures: Introduction to concrete structural elements

Concrete form of structures: Introduction to concrete structural elements

Effects of seismic forces and seismic resistance design of foundations

Foundation types: Shallow and Deep

Componentenets of services: HVAC, Electrical systems and distribution, Mechanical transportation, Fire safety, Disposal systems (Sanitary & Solid waste)

Building service integration

Introduction to Standard material specifications (BS Codes/ Euro Code)

Building external works: Installation of exterior glazing & claddings, access road, landscape work (Hard & Soft)

Landscape design: Basic principles of Softscape and Hardscape

Eco-friendly & low energy building designs, environmental systems and controls

LEED green rating system: Introduction to green rating criterias

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 theoretical approach to identify structural design principles & essential buildings service installations and Total Quality Management of building works of various type of buildings.

In-class practical sessions and tutorials to familiarize various techniques & methods to apply standards & code of practices for various building works, structural

designing, buildings services and external works of building construction.
Self-managed studies to examine application of various statutory legislative requirements of building design, site & internal spatial planning and sustainable design principles & its applications.
Building construction technology, building services technology, sustainable design technology and legislative recruitments of building planning & construction are some key features of this module.
A recommended resource list - indicating key reading, virtual and physical learning assistance, is provided to help enable students to undertake self-directed study.

Notes

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