Liverpool John Moores University

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Title:	CONSTRUCTION TECHNOLOGY 2
Status:	Definitive
Code:	**5200BEUG** (122322)
Version Start Date:	01-08-2021
Owning School/Faculty:	Civil Engineering and Built Environment
Teaching School/Faculty:	Civil Engineering and Built Environment

Team	Leader
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Academic Level:	FHEQ5	**Credit Value:**	20	**Total Delivered Hours:**	60
Total Learning Hours:	200	**Private Study:**	140		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	40
Workshop	20

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	SCENARIO BASED ASSIGNMENT	50	
Test	AS2	TIMED OPEN BOOK TEST	50	

Aims

To explain and analyse the construction techniques of framed 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 explain a range of processes and techniques involved in the construction of the substructure for single storey and multi storey framed buildings.
2	Analyse and explain a range of processes and techniques involved in the construction of the superstructure for single storey and multi storey framed buildings.
3	Explain the principles and operation of a range of building services for industrial and commercial buildings.

Learning Outcomes of Assessments

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

SCENARIO BASED ASSIGNMENT	2	
TIMED OPEN BOOK TEST	1	3

Outline Syllabus

• *Substructure – pile foundations, displacement and replacement, pile caps and ground beams, pad foundations. Basement excavation and construction. Reinforced concrete ground floor slabs.*

• *Superstructure – Single storey framed buildings of portal frame and lattice girder construction in steel concrete and timber. Multi storey structural frames in steel in-situ concrete and precast concrete. Cross laminated timber multi storey structures. Tunnel form and Slip form construction. Cladding to single storey and multi storey buildings. Roofing to single and multi-storey buildings. Structural concrete floors,- metal deck, precast concrete and in-situ concrete. Suspended Ceilings, Access Floors and Internal Partitions.*

• *Services – Heating Ventilation and Air conditioning plant to industrial and commercial buildings. Electrical installations to industrial and commercial buildings. Lifts and escalators installation. Firefighting and suppression systems to multi storey buildings. Pumped systems of water supply to multi storey buildings.*

Learning Activities

Lectures are used in order to identify and explain key concepts and theories and provide detailed information on particular subject areas within the module. They help

to stimulate the student's interest in the subject area. Lectures may also include guest industry speakers to add industry context to the material.

Workshops are used to engage students in more intensive discussion and activity on particular subject areas within the module. This helps shape the student's own understanding and place the lecture material in context.

Notes

Provides an advanced knowledge of construction technology through more complex building types and systems. Students are able to explore construction technology through more analytical methods. The concept of services is also introduced.