

Construction Technology 2

Module Information

2022.01, Approved

Summary Information

Module Code	5350BEUG
Formal Module Title	Construction Technology 2
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Civil Engineering and Built Environment

Learning Methods

Learning Method Type	Hours
Lecture	44
Workshop	22

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	To examine construction methods and building services installations with a specific focus on framed structures, and commercial – industrial buildings
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	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.
MLO2	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.
MLO3	3	Explain the principles and operation of a range of building services for industrial and commercial buildings.
MLO4	4	Criticise the traditional construction techniques and debate the role of contemporary methods to attain sustainable development goals.
MLO5	5	Recognise health and safety risks related to various construction techniques used for frame structured single and multi storey buildings.

Module Content

Outline Syllabus	<ul style="list-style-type: none"> • 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.
Module Overview	
Additional Information	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.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	SCENARIO BASED ASSIGNMENT	50	0	MLO2, MLO4, MLO5
Report	TIMED OPEN BOOK TEST	50	0	MLO1, MLO3, MLO4, MLO5

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Tom Hogarth	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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