Module Proforma

Approved, 2022.03

Summary Information

Module Code	5200BEUG
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

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Ana Armada Bras	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
Spencer Kelly	Yes	N/A
Layth Kraidi	Yes	N/A
Thomas Hogarth	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings

Teaching Responsibility

LJMU Schools involved in Delivery
Civil Engineering and Built Environment

Learning Methods

Learning Method Type	Hours
Lecture	40
Workshop	20

Module Offering(s)

Offering Code	Location	Start Month	Duration
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

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 situationTo introduce the technology of building services installations for commercial and industrial buildings.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	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	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	Explain the principles and operation of a range of building services for industrial and commercial buildings.

Module Content

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.

Module Overview

This module provides an advanced knowledge of construction technology through more complex building types and systems. You will be able to explore construction technology through more analytical methods to enable you to evaluate the relative merits of the various construction forms in any given situation. The module will also introduce you to the technology of building services installations for commercial and industrial buildings.

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.On the Quantity Surveying Degree Apprenticeship programme, the knowledge learning outcomes are K6, K7 and the skills learning outcomes are S3.On the Construction Management Degree Apprenticeship programme, the knowledge learning outcomes are K6, K7 and the skills learning outcomes are S3.

Assessments

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