

## Construction Technology 2

### Module Information

2022.01, Approved

#### Summary Information

Module Code	5349BEUG
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	22
Online	11
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 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 current and future building services technologies for commercial and industrial buildings.
------	---

**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 and understand how services may adapt in the future to save energy and resources.

### Module Content

Outline Syllabus	<ul style="list-style-type: none"> <li>• Substructure – pile foundations, displacement and replacement, pile caps and ground beams, pad foundations. Basement excavation and construction. Reinforced concrete ground floor slabs.</li> <li>• 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. Cladding to single storey and multi storey buildings and integrated solar panels. Roofing to single and multi-storey buildings. Structural concrete floors, suspended ceilings, access floors and internal partitions.</li> <li>• Services to industrial and commercial buildings including alternative forms of energy supply.</li> </ul>
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
Dissertation	SCENARIO BASED ASSIGNMENT	50	0	MLO1, MLO2
Dissertation	TIMED OPEN BOOK TEST	50	0	MLO1, MLO3

### 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
--------------	--------------------------	-----------