

Infrastructure

Module Information

2022.01, Approved

Summary Information

Module Code	4202CIV
Formal Module Title	Infrastructure
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	10
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Civil Engineering and Built Environment

Learning Methods

Learning Method Type	Hours
Lecture	22
Tutorial	6
Workshop	6

Module Offering(s)

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

Aims and Outcomes

Aims	To introduce students to infrastructure and to explain the interlinking between the various forms of infrastructure. To introduce the students to a systems approach to solving complex engineering problems. To introduce the planning, design, construction and operational activities required for civil engineering infrastructure & associated works.
------	--

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Explain the importance of sustainable infrastructure
MLO2	2	Apply a systems approach to solving complex infrastructure problems
MLO3	3	Apply the principal features of project planning including the methods available for programming construction works.
MLO4	4	Demonstrate an understanding of relevant health and safety legislation, the hazards arising from construction activities and of the means of managing them through preventative design and protective measures.
MLO5	5	Demonstrate an understanding of civil engineering technology, practices and processes.

Module Content

Outline Syllabus	What is infrastructure? Case studies of different forms of infrastructure, including road, rail, water, wastewater. Sustainability, definition and application Systems approach, Multiple cause diagrams Project definition, Client types; clients' requirements; briefing: time, cost, quality and functional objectives; external influences: environmental issues. Procurement arrangement options and documentation: Contractual arrangements. Approaches to obtaining tenders. Procurement route selection: Simple selection procedure Construction methods, sequences and resources used in civil engineering projects. Use of suitable Health & Safety legislation, particularly CDM regulations, principal provisions; Safe systems of work; Work method statements, risk assessments and safety method statements. Use of computer software to produce construction programmes.
Module Overview	This module introduces you to infrastructure, partly through the use of case studies. You will also be introduced to sustainability, and to the importance of sustainable infrastructure. Alongside this, you will be introduced to the management of infrastructure projects.
Additional Information	This module introduces students to infrastructure, partly through the use of case studies. They are also introduced to sustainability, and to the importance of sustainable infrastructure. They are also introduced to the management of infrastructure projects. Where this module is part of a Degree Apprenticeship programme, the knowledge learning outcomes are K1, K2 and K6, the skills learning outcomes are S1, S2, S3, S7 and S8.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Examination	100	1.5	MLO3, MLO4, MLO5, MLO1, MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Khalid Hashim	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------