

Advanced Construction Technology

Module Information

2022.01, Approved

Summary Information

Module Code	5502ICBTCE
Formal Module Title	Advanced Construction Technology
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	15
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
International College of Business and Technology

Learning Methods

Learning Method Type	Hours
Lecture	39
Off Site	8
Tutorial	6

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
APR-PAR	PAR	April	12 Weeks

JAN-PAR	PAR	January	12 Weeks
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	This unit enables learners to understand the methods and techniques used for specialised civil engineering projects and develop skills in solving problems arising from construction and civil engineering activities.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Recognise the methods and techniques used in tunnelling activities.
MLO2	2	Recognise the methods and techniques used in hydraulic structures and marine works.
MLO3	3	Recognise the methods and techniques used in highway construction and railway works.
MLO4	4	Solve problems arising from complex civil engineering activities.

Module Content

Outline Syllabus	Tunnelling activities: ground conditions, e.g. hard rock, soft ground. Ground support, cut and cover tunnelling, pipe jacking, mini-tunnelling, construction of shafts Constructing hydraulic structures: materials used, e.g. earth, rock fill, and concrete. Ancillary works. Canal and river works. Constructing marine works: cofferdams, caissons, sea walls, harbour works, coastal protection activities. Constructing and maintaining carriageway works: rigid pavements, flexible pavements, railway works (provision of new track and ancillary structures). Factors affecting solutions to civil engineering problems: proper regard to health, safety and welfare. Environmental issues, quality matters, technical and economic considerations, importance of resource planning and programming, contingency plans, amendments as necessary.
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Practice	Coursework	30	0	MLO3, MLO4
Exam	Exam	70	2	MLO1, MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Karl Jones	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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