

Geotechnics

Module Information

2022.01, Approved

Summary Information

Module Code	5504ICPDCE
Formal Module Title	Geotechnics
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
LJMU Partner Taught

Partner Teaching Institution

Institution Name
International College of Business and Technology

Learning Methods

Learning Method Type	Hours
Lecture	15
Practical	6

Module Offering(s)

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

Aims and Outcomes

Aims	The students will be able to identify the various prerequisites involved in ground and site investigation and understand & evaluate the significance of water in soils, its movement and effects upon soil properties.
------	--

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Identify the various prerequisites involved in ground and site investigation
MLO2	2	Evaluate the significance of water in soils, its movement and effects upon soil properties and strength parameters
MLO3	3	Identify the principals involved in assessing the stability of slopes, foundations and earth retaining structures.
MLO4	4	Determine the stability and use appropriate factors of safety against sliding and overturning.

Module Content

Outline Syllabus	Prerequisites involved in ground and site investigation. Common rock and soil types, their mode of formation, geographical and geological distribution. Significance of water in soils, its movement and effects upon soil properties and strength parameters. The principals involved in assessing the stability of slopes, foundations and earth retaining structures. The principle of effective stress in geotechnics. The compression and shear failure of engineering soils to the conditions of test and field loading. The stability and displacements for long-term loading of earth structures, earth retaining walls and foundations. Calculate the position and magnitude of forces produced by liquids or soils on vertically retaining walls, determine the stability and use appropriate factors of safety against sliding and overturning.
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Examination	100	3	MLO1, MLO2, MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Alison Cotgrave	Yes	N/A

Partner Module Team

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

