

Module Information

2022.01, Approved

Summary Information

Module Code	6501CVQR
Formal Module Title	Infrastructure, Highways Design and Innovation
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Learning Methods

Learning Method Type	Hours
Lecture	44
Seminar	11
Workshop	11

Module Offering(s)

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

Aims and Outcomes

Aims	To develop understanding and knowledge of the role of infrastructure in supporting society, and the role of civil engineering in developing infrastructure. In particular students will develop further understanding of the design of roads and highway drainage. The module will study recent developments within the field of infrastructure, and students will develop an understanding of innovation and entrepreneurship through consideration of case studies.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Critically evaluate sustainable highway design
MLO2	2	Identify the performance of infrastructure as a system, and use a systems approach to improvement of current infrastructure
MLO3	3	Design and evaluate effective highway drainage systems
MLO4	4	Critically evaluate the process of innovation
MLO5	5	Produce an innovative design and appraise both its design and its potential use within civil engineering

Module Content

Outline Syllabus	Develop knowledge and understanding of highway design Critical evaluation of case studies in highway design Design of road drainage Identification and classification of systems, and use of systems in understanding complex infrastructure. The process of innovation, and case studies of innovation Development of individual innovative ideas. Entrepreneurship
Module Overview	
Additional Information	The module develops the students' understanding of highways and road drainage design, and develops a systems approach to infrastructure analysis. Recent developments in infrastructure design are considered and evaluated, developing students' understanding of the process of innovation.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Examination	70	2	MLO1, MLO2, MLO3, MLO4, MLO5
Portfolio	INNOVATION REPORT <2000 WORDS	30	0	MLO2, MLO4, MLO5

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Stephen Wylie	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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