

Summary Information

Module Code	7505PGSL
Formal Module Title	Pavement, Highways and Transport Engineering
Owning School	Civil Engineering and Built Environment
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

Module Contacts**Module Leader**

Contact Name	Applies to all offerings	Offerings
Zelong Yu	Yes	N/A

Module Team Member

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

Partner Module Team

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

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	24
Tutorial	18
Workshop	9

Module Offering(s)

Offering Code	Location	Start Month	Duration
JAN-PAR	PAR	January	12 Weeks

Aims and Outcomes

Aims	To develop understanding and critical evaluation in highway and road pavement design. To appreciate the demands and challenges in providing and maintaining sustainable road transport infrastructure. To develop understanding of traffic flow theory, transport planning and associated social and environmental elements such as road safety and air pollution.
-------------	--

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Evaluate highway geometric design, constraints and the balance between safety, cost and environment.
MLO2	Evaluate contemporary approaches for road pavement design and materials.
MLO3	Critically evaluate sustainable road transport.
MLO4	Critically analyse the management, design and operation transport infrastructure.

Module Content

Outline Syllabus

Use of DMRB, alignment and design speed
Pavement materials and design principles; hot mix and cold mix
Road materials recycling
Life cycle analysis
Sustainable design and construction of highways
Road pavement maintenance and performance evaluation
Junction design, capacity assessment
Transport modelling
Road Safety
Vehicular pollution

Module Overview

Additional Information

The module aims to develop understanding of highway and road pavement design, and a critical appreciation of optimum design methods. Students will learn to appreciate the demands, and challenges in providing and maintaining sustainable road transport infrastructure.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Exam	Examination	60	2	MLO3, MLO1, MLO2, MLO4
Report	Report	40	0	MLO3, MLO4