Pavement, Highways and Transport Engineering

Module Information

2022.01, Approved

Summary Information

Module Code	7205CIV
Formal Module Title	Pavement, Highways and Transport Engineering
Owning School	Civil Engineering and Built Environment
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

Teaching Responsibility

LJMU Schools involved in Delivery
Civil Engineering and Built Environment

Learning Methods

Learning Method Type	Hours
Lecture	22
Tutorial	16
Workshop	9

Module Offering(s)

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

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Evaluate highway geometric design, constraints and the balance between safety, cost and environment
MLO2	2	Evaluate contemporary approaches for road pavement design and materials.
MLO3	3	Critically evaluate sustainable road transport.
MLO4	4	Critically analyse the management, design and operation transport infrastructure.

Module Content

Outline Syllabus	Use of DMRB, alignment, design speedPavement materials and design principles; hot mix and cold mixRoad materials recyclingLife cycle analysisSustainable design and construction of highwaysRoad pavement maintenance and performance evaluationJunction design, capacity assessmentTransport modellingRoad SafetyVehicular 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)	Module Learning Outcome Mapping
Centralised Exam	Examination	60	2	MLO1, MLO2, MLO3, MLO4
Report	REPORT <2000 WORDS	40	0	MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Raj Shah	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings