

### Summary Information

Module Code	7307CIV
Formal Module Title	River and Coastal Engineering
Owning School	Civil Engineering and Built Environment
Career	Postgraduate Taught
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
Practical	2
Tutorial	11
Workshop	11

### Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

### Aims and Outcomes

Aims	To critically review and appraise specific application and solution of river and coastal problems. This module develops critical analysis skills of river and coastal engineering. It examines river and coastal engineering works, in particular flood risk assessment, structures and flood propagation.
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**After completing the module the student should be able to:**

### Learning Outcomes

Code	Number	Description
MLO1	1	Critically appraise and analyses flood risk and assessment and tools.
MLO2	2	Critically evaluate the design and operation of flood alleviation measures.
MLO3	3	Critically appraise river and coastal engineering works and suggest improvements.

### Module Content

Outline Syllabus	Tides, wind and waves and anthropogenic causes of flooding.Design of river Structures and structures for Coastal Defence.River restoration and design of defences against both river and coastal floodingAdvanced hydrology, flood and precipitation frequency analysis and Flood routing. Groundwater and interaction with river and coastal systems.Climate change assessment, River erosion, sedimentation, scouring and irrigation. River and Coastal Ecosystems. Case studies.Use of numerical models for flood risk mapping.
Module Overview	
Additional Information	This module develops advanced techniques for evaluating and understanding the behaviour of engineering river and coastal systems under various conditions. The module further develops an understanding of river and coastal engineering, with a particular emphasis on flooding and its mitigation using suitable methods of design and materials use.

### Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Test	Report ~ 3000 Words	40	0	MLO2, MLO3
Centralised Exam	Examination	60	3	MLO1, MLO2, MLO3

### Module Contacts

#### Module Leader

Contact Name	Applies to all offerings	Offerings
Mawada Abdellatif	Yes	N/A

#### Partner Module Team

Contact Name	Applies to all offerings	Offerings