

Liverpool John Moores University

Title: RIVER AND COASTAL ENGINEERING
Status: Definitive
Code: **6026BEUG** (102806)
Version Start Date: 01-08-2016

Owning School/Faculty: Civil Engineering
Teaching School/Faculty: Civil Engineering

Team	Leader
Felicite Ruddock	Y

Academic Level: FHEQ6
Credit Value: 12
Total Delivered Hours: 39
Total Learning Hours: 120
Private Study: 81

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	12
Practical	2
Seminar	12
Tutorial	10

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	closed book, choice of questions	70	3
Report	AS2	report and oral presentation	30	

Aims

This module develops an understanding of river and coastal flooding. It examines river and coastal engineering works, in particular flood defence works, and develops an understanding of flood prediction.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically evaluate the design and operation of flood alleviation measures
- 2 Critically appraise river and coastal engineering works and suggest improvements.
- 3 Apply an understanding of hydrology to the prediction of flood and drought conditions.
- 4 Locate, and critically analyse, relevant material from journals and other sources.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

EXAM	1	2	3
REPORT	1	2	4

Outline Syllabus

Hydrology to include the unit hydrograph, reservoir storage capacity, flood routing and overflow structures.

Tides, wind and waves.

Anthropogenic causes of flooding.

Use of The Flood Estimation Handbook.

Design of River Structures.

Design of Structures for Coastal Defence.

River Restoration.

Design of Defences against both river and coastal flooding.

Case studies.

SUDS.

River and Coastal Ecosystems.

Learning Activities

Lectures, tutorials, seminars and practicals.

Notes

The module develops an understanding of river and coastal engineering, with a particular emphasis on flooding and its mitigation.