Liverpool John Moores University

Title:	COASTAL SYSTEMS: BIOPHYSICAL AND ENVIRONMENTAL ASPECTS
Status:	Definitive
Code:	**7503SCSUCR** (125668)
Version Start Date:	01-08-2019
Owning School/Faculty:	Natural Sciences & Psychology
Teaching School/Faculty:	Southern Connecticut State University

Team	Leader
Jason Kirby	Y

Academic Level:	FHEQ7	**Credit Value:**	12	**Total Delivered Hours:**	24
Total Learning Hours:	120	**Private Study:**	96		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	8
Off Site	6
Workshop	10

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	Portfolio	Project report analysing a contemporary coastal problem. Critical evaluation of biophysical aspects of coastal systems.	100	

Aims

To introduce students to physical aspects of coastal systems functioning, including waves, tides and currents, sediment and ecosystems.
To recognise climate-related impacts on coastal systems and implications for resilience.

Learning Outcomes

After completing the module the student should be able to:

1	Critically understand physical and biophysical processes operating in the coastal system.
2	Be able to explain how coasts function as an integrated system of physical, biological and chemical processes.
3	Be able to describe and contrast the key features of different coastal environments, and the processes involved in their development.
4	Critically discuss the potential impact of climate-related events on coastal environments.
5	Evaluate practical methods for enhancing coastal resilience to mitigate the effects of climate change on coastal systems.

Learning Outcomes of Assessments

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

Class and field-based activity	1	2	3	4	5

Outline Syllabus

Introduction to coastal systems and coastal classification. Waves, tides and currents. Estuaries. Coastal marine communities and ecosystems. Coastal environments - including beaches, dunes, wetlands, deltas, mangroves and coral reefs. Sea-level changes and coastal meteorology (storms, hurricanes, El Ninos, etypical weather phenomena). Implications for climate change of coastal system function and resilience.

Learning Activities

Lectures, practicals, workshops. problem solving, discussion, field activity.

Notes

The purpose of this module is to provide a science-based understanding of the fundamental of the natural systems and processes that operate in the coastal zone. Solving coastal problems in the sense of enhancing the resilience of both human and natural communities in a time of climate change and rising seas requires an understanding of the natural systems and their interaction.