

TEACHING MODULES INFORMATION

EMJMD WACOMA (academic year 2018/19)

1.	Module Title: Beach nourishment as a management tool									
2.	Module Code:									
3.	Maximum Number of Students: 22									
4.	Total ECTS Credits: 2 ECTS									
5.	Month: First year, second semester									
6.	<p>Notional Learning Hours (Please fill a number in box): (a) Contact Time - e.g in the classroom, or fieldwork 10 (b) Private Study - reading time, preparing and taking assessments 40</p> <p>Format of Teaching:</p> <table style="width: 100%; border: none;"> <tr> <td>Lectures</td> <td style="text-align: center;">8</td> <td>Hours (a)</td> </tr> <tr> <td>Laboratories or Practicals</td> <td style="text-align: center;">6</td> <td>Hours (a)</td> </tr> <tr> <td>Other (private study)</td> <td style="text-align: center;">36</td> <td>Hours (b)</td> </tr> </table> <p>Teaching Strategy: Lectures – 8 Workshops – 6 Tutorials –</p>	Lectures	8	Hours (a)	Laboratories or Practicals	6	Hours (a)	Other (private study)	36	Hours (b)
Lectures	8	Hours (a)								
Laboratories or Practicals	6	Hours (a)								
Other (private study)	36	Hours (b)								
7.	Convener: Juan José Muñoz Pérez									
8.	Institution: University of Cadiz									
9.	Level (Please tick Y): Master									
10.	Language(s) of Tuition: English									
11.	Pre-requisites: It is unlikely that there will be prerequisites beyond the entrance qualifications for a science-based Masters programme.									
12.	Co-requisites: None									
13.	Programme(s) for which module is core: Erasmus Mundus Joint Master Degree in Water and Coastal Management (WACOMA)									

14.	<p>Module Description - The Purpose or Aims: Causes of erosion are presented and possible solutions are commented. Beach nourishment versus groin construction is discussed in detail.</p>
15.	<p>Learning Outcomes: Basics on analysing wave climate and its influence on beach erosion. Rudiments of Beach nourishment</p>
16.	<p>Summary of Course Content:</p> <ul style="list-style-type: none"> - Introduction about Shallow water characteristics (Wave climate, wave breaking, sediment transport, ...) - Beach morphodynamics (equilibrium profile, submerged bars, sand size) - Flood level (inverted barometer effect, run up, surf beat) - Pros and cons of Beach nourishment (dredging, methodology, maintenance cost) versus Groin construction.
17.	<p>Key Skills Taught:</p> <ul style="list-style-type: none"> - acquisition and consideration of wave climate data and beach contour conditions - the use of basic design models for beach nourishment - real situations analysis, - and apply this knowledge to address real world problems in the coastal zone.
18.	<p>Assessment Methods: The examination topics are released to the students in advance (at the first class) and discussed along the course, but the precise questions are unseen until the exam.</p>

19.	<p>Assessment Criteria: A successful candidate should have or be able to do the following:</p> <p><i>Threshold</i> A basic understanding of the appropriate science and modelling approach and a reasonable understanding of the model results and their implications.</p> <p><i>Good</i> A good understanding of the science and correct model results which are presented and interpreted to a good standard, with some reference to independent literature data and results.</p> <p><i>Excellent</i> A good to excellent understanding of the science and correct model results which are presented and interpreted to a high standard, with plenty of references used for comparisons and to critically evaluate the results.</p>
20.	<p>Resource Implications of Proposal and Proposed Solutions:</p> <p>Waves, Tides and Shallow-Water Processes (Oceanography). Open University. Butterworth-Heinemann Ed. ISBN 978-0750642811</p> <p>Specific Resource Implications for Students: None</p>
21.	<p>Does this module replace existing provision? If so, please indicate modules to be replaced: The module fits within the area of “Environmental legislation”</p>
22.	<p>Start Date: First year, second semester</p>
23.	<p>Is it intended that the module be available every year? Possibly</p>