

TEACHING MODULES INFORMATION

EMJMD WACOMA (academic year 2018/19)

1.	Module Title: Integrated water resources and natural areas management in the coastal zone								
2.	Module Code: (not necessary yet)								
3.	Maximum Number of Students: 25								
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 (b) Private Study - reading time, preparing and taking assessments</p> <p>Format of Teaching:</p> <table style="width: 100%; border: none;"> <tr> <td>Lectures</td> <td style="text-align: right;">4 Hours (a)</td> </tr> <tr> <td>Laboratories or practicals</td> <td style="text-align: right;">4 Hours (a)</td> </tr> <tr> <td>Other (computer workshops)</td> <td style="text-align: right;">6 Hours (a)</td> </tr> <tr> <td>Other (private study)</td> <td style="text-align: right;">36 Hours (b)</td> </tr> </table> <p>Teaching Strategy: Learning by doing. Theoretical basics are discussed first. Later, the theory will be applied in practical exercises with natural coastal and real data for the maritime zone.</p>	Lectures	4 Hours (a)	Laboratories or practicals	4 Hours (a)	Other (computer workshops)	6 Hours (a)	Other (private study)	36 Hours (b)
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Other (private study)	36 Hours (b)								
7.	Convener: J. Adolfo Chica Ruiz, Alfredo Fernández Enríquez								
8.	Institution: University of Cadiz								
9.	Level: Master Level								
10.	Language(s) of Tuition: English								
11.	Pre-requisites: Basic computer skills and knowledge of coastal dynamics								
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:</p> <p>To learn the marine and coastal protected areas management plans. To study zoning techniques for coastal and marine protected areas. To teach students how to analyse natural coastal zones dynamics through geographic information.</p>								
15.	Learning Outcomes: Zoning of coastal and marine natural areas using GIS tools								

16.	<p>Summary of Course Content:</p> <p>Lectures: Approach to coastal and marine protected areas; Planning and management of coastal and marine protected areas; Zoning techniques for coastal and marine protected areas.</p> <p>Data analysis: Use of GIS as a practical tool to work with data needed in natural zones investigation, in order to model marine and coastal environment.</p>
17.	<p>Key Skills Taught:</p> <p>Theoretical and practical basis for geographic analysis using management tools and GIS software (QGIS, ArcGIS).</p>
18.	<p>Assessment Methods:</p> <p>Student implication when attending lectures and solving practical exercises.</p>
19.	<p>Assessment Criteria:</p> <p>A successful candidate should have or be able to do the following:</p> <p>Threshold</p> <p>A basic understanding of the appropriate science and modelling approach and a reasonable understanding of the model results and their implications.</p> <p>Good</p> <p>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>Excellent</p> <p>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><i>(Recommended Bibliography: compulsory, optional, other sources of information)</i></p> <p>Lectures: Students access to course documentation is provided through Moodle platform and video projector</p> <p>Data analysis: Practical exercises are developed in computer rooms with computers, licensed software and open source software. Data obtained from official sources are implemented in order to fit teaching purposes</p> <p>Books: Barragán, J.M. (2014). Política, Gestión y Litoral: una nueva visión de la gestión integrada de áreas litorales. Oficina Regional de Ciencia de la UNESCO para América Latina y el Caribe. Tébar, 685 pp. Boada, M. y Rivera, M. (2000). L’origen dels espais naturals protegits. <i>Medi Ambient Tecnologia i Cultura</i>, (27), 5-13. Board, O. S., y National Research Council. (2001). Marine Protected Areas: Tools for Sustaining Ocean Ecosystem. National Academies Press, 272 pp. Castro, H. (2003). V Congreso Mundial de Parques. <i>Medio Ambiente</i>, 44, p 34-37. Chica, J.A. (2005). Conservación y desarrollo del litoral español y andaluz: planificación y gestión de espacios protegidos. Tesis doctoral. Universidad de Cádiz, España. Rees, S., Foster, N., Langmead, O., Pittman, S y Johnson, D. (2017). Defining the qualitative elements of Aichi Biodiversity Target 11 with regard to the marine and coastal environment in order to strengthen global efforts for marine biodiversity conservation outlined in the United Nations Sustainable Development Goal 14. <i>Marine Policy</i>, IN PRESS Salm, U., Clark, J.R. y Siirila, R. (2000). Marine and coastal protected areas: A guide for planners and managers. IUCN, Gland, 370 pp. Tolón, A. y Lastra, X. (2008). Los Espacios Naturales Protegidos. Concepto, evolución y situación actual en España. <i>M+A. Revista Electrónica de Medio Ambiente</i>, 5, 1-25. UICN, PNUMA y WWF. (1980). World Conservation Strategy: Living Resource Conservation for Sustainable Development. Gland, Suiza. UICN. (1987). The Bali Action Plan. Report during the World Park Congress, oct 11-22, 1982. Commission of National Parks and Protected Areas. Ottawa, Canadá. UICN, PNUMA y WWF. (1991). Caring for the Earth. A strategy for Sustainable Living. Gland, Suiza. UNEP-WCMC y UICN (2016). Protected Planet Report 2016. UNEP-WCMC y UICN: Cambridge, Reino Unido y Gland, Suiza. UNESCO (2017). Una nueva hoja de ruta para el Programa sobre el Hombre y la Biosfera (MAB) y su Red Mundial de Reservas de la Biosfera. Estrategia del MAB (2015-2025). Plan de Acción de Lima (2016-2025). Declaración de Lima. Publicado en 2017 por la Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura. París, Francia.</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 in the area of “Biology of aquatic organisms”</p>
22.	<p>Start Date: First year, second semester</p>
23.	<p>Is it intended that the module be available every year? Yes</p>