

Post Graduate Education On ICZM (University of Cadiz) - ES

1. Policy Objective & Theme

- ADAPTATION TO RISK: Managing impacts of climate change and safeguarding resilience of coasts/coastal systems
- ADAPTATION TO RISK: Preventing and managing natural hazards and technological (human-made) hazards
- ADAPTATION TO RISK: Integrating coherent strategies covering the risk-dimension (prevention to response) into planning and investment
- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space
- SUSTAINABLE USE OF RESOURCES: Sound use of resources and promotion of less resource intensive processes/products
- SUSTAINABLE ECONOMIC GROWTH: Developing Europe's regional seas sustainably
- SUSTAINABLE ECONOMIC GROWTH: Balancing economic, social, cultural development whilst enhancing environment

2. Key Approaches

- Knowledge-based

3. Experiences that can be exchanged

This Master is attended by representatives of many administrations with competences in the coast. Having all the coastal managers studying and debating together facilitates and encourages the future administrative co-ordination and collaboration.

4. Overview of the case

The Graduate Programme in ICZM of the University of Cadiz provides specialized knowledge in the field of ICZM covering all the coastal sub-systems in a balanced way and giving special importance to the public participation and the administrative coordination. The course duration is 1 year.

5. Context and Objectives

a) Context

Sustainable development of the coasts has been one of the main topics in the international agenda during the last years. ICZM has been highlighted by the scientific community as a tool to tackle the current problems of our coasts, not only those generated by the high percentage of population living in coastal areas and the enormous pressure of the different socio-economic activities but also due to the lack of administrative co-ordination and the conflicts of interests. Several regulations are pushing ICZM forward, like the recent Protocol on Integrated Coastal Zone Management in the Mediterranean, signed in Madrid in January 2008. These recent ICZM initiatives are encouraging the Member Countries to develop National Strategies on ICZM but nowadays the coastal managers and technical staff working in the competent Administrations are used to working in a traditional coastal management which does not consider the ICZM principles, as a holistic approach, administrative co-ordination, public participation, long-term and adaptive management, etc. This ICZM initiative, organized by the University of Cadiz, is designed to tackle this lack of information, education and training in ICZM of both the university students aiming to work or research these fields and professionals already working in them. Its first edition resulted from a European initiative to train the coastal managers and technical staff of the Cadiz province in ICZM, through the Nature-LIFE Initiative (03 NAT/E/000054). This initiative has been consolidated over the last years, this being the 8th edition of the Masters Programme in ICZM.

b) Objectives

The general objective is to provide the technical expertise required to face the current coastal management challenges from an integrated and sustainable development perspective. The specific objectives are related to the different capacities taught to the student: (1) coastal integrated analysis, based on a holistic perspective of the complex systems (2) coordination and participation in different coastal management instruments, such as action plan design, public participatory processes, strategy establishment, etc., (3) providing advice and technical support to the political representatives in the management process, including decision-making, strategies selection, procedures, programmes implementation, coordinating actions, etc. The timescale associated with the course implementation is 1 year.

6. Implementation of the ICZM Approach (i.e. management, tools, resources)

a) Project Management

The Master in ICZM is directed by the University of Cadiz –School of Ocean and Environmental Sciences- and managed by its ICZM Research Group. Widely-known Spanish and international researchers and managers, as well as private companies and institutions at the national (as the Directorate General for the Coasts), regional and local levels participate in the Master's Programme offering courses in specific topics.

b) ICZM tools

This initiative is an educational and training instrument. It is divided into 5 modules out of which 3 must be chosen, one Common and obligatory (4 months), 1 Specific (2 months) depending on the student's speciality and 1 Practical Module (6 months):

- Common Module (obligatory): Coastal Oceanography and Dynamics, Coastal ecology, Coastal Pollution Integrated Analysis, Public Information and Participation Systems, Socio-economic basis for coastal management, coastal economic activities and land-uses.
- Specific Module 1 (optional) "Integrated Planning and Management": Coastal sustainable development- management strategies and methodologies, ICZM Projects-case studies.
- Specific Module 2 (optional) "Coastal Risks": Natural Coastal Risks and Protection measures, Human impacts and coastal vulnerability.
- Practical Module 1 (optional) "Professional": Internship in private company or Institution, Final Thesis (professionally-oriented)
- Practical Module 2 (optional) "Research": Scientific methodology, Final Thesis (research-oriented)

It applies different educational and training tools, such as:

- Master classes
- Practical lessons
- Case studies
- Field trips
- Conflict resolution techniques

7. Cost and resources

The budget for the implementation of this initiative is €70,000. The manpower used for the implementation of the tool is 52 people: 2 master co-ordinators and 50 master professors.

8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

The Master in ICZM offered by the University of Cadiz and its ICZM Research Group provides the technical expertise to face

the current coastal management challenges from the integrated and sustainable development perspective. It has received the highest possible merit in education conferred by the Spanish Ministry of Education and Science, known as "Mención de Calidad". The objectives are achieved each course in the timescale defined

9. Success and Fail factors

Factors that are helpful in achieving the objective are: (1) the applied approach, at least 60% of the total hours are practical lessons; (2) the balance between the information and importance given to each coastal sub-system; (3) the real experiences provided by coastal managers at the regional, national and international level; (4) the participative approach, as the second part of each lesson is dedicated to debate or apply the previously explained theory; (5) the long-term alliance with Latin America through students and associate teachers, (6) the European legislation pushing ICZM forward, and (7) the support of Spanish institutions (at the national and regional level) and American and Latin American experts.

10. Unforeseen outcomes

The awards received by both the Spanish Ministry of Education and Science help to spread the quality of the master. The fact of having all the coastal managers studying and debating together during the Master facilitates and encourages future coordination and collaboration between them.

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13. Sources

- <http://gestioncostera.es/>
- Master Oficial en Gestión Integrada de Areas Litorales LEAFLET. Universidad de Cadiz.



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