

NAME OF THE DEGREE

Marine Sciences Graduate Degree, by the University of Cadiz

OCCUPATIONAL OPENINGS

The Marine Sciences Degree will qualify you to work in a wide range of occupations and professional activities associated with the oceans, and particularly in scientific, technical, commercial and teaching activities related to the marine world. The basic objectives of university education in Marine Sciences are to equip the graduate with the scientific and technical knowledge, motivation and capabilities for:

- Conducting research in the various different fields of marine sciences;
- Providing advice and consultancy on topics within their competence such as marine resources, environmental conservation and impacts, and coastal management, at the request of the government, public bodies and organizations, commercial companies and others (e.g. press and communications media).
- Teaching and training, in due course, other scientists, technicians and professionals, present and prospective.

JUSTIFICATION OF THE PROPOSED QUALIFICATION: ACADEMIC, SCIENTIFIC AND PROFESSIONAL INTEREST

Most of the problems facing the human race as a species, like climate change, rising sea-levels, loss of biodiversity, marine contamination, and many more, are associated with the sea. Most importantly, the oceans have a very significant role as a major source of living resources, mineral resources and economic wealth (even tourism which is Spain's most important industry!). It is evident from all these considerations that it is vitally important to have significant knowledge of all aspects of the oceans: this is indispensable if we hope to be successful in resolving the many problems facing society today, and benefiting from the many opportunities created.

Regarding the importance of this field, we must refer to the Galway Declaration, a summary statement agreed by the participants at the International Meeting “EurOCEAN 2004” (10-13 May 2004), who included most of the leading European academic, research, technological, economic and social bodies associated with the sea:

1. The oceans play a crucial role in the climate, the carbon cycle and life on planet Earth.
2. The main industries associated with the sea are making a large and increasing contribution towards the achievement of the objectives proposed in the Lisbon Agenda.
3. Marine Sciences and Technologies, and those who study these areas, are essential contributors in generating the necessary knowledge for achieving economic and social objectives that are in harmony with the natural environment.

4. It is critically important to include studies related to the sea within the European research field; it is essential to maintain primacy and excellence in studies and research in Marine Sciences and Technologies.

GENERAL AND SPECIFIC COMPETENCES KNOWLEDGE:

1. You will know and understand the essential facts, concepts, principles and theories related to the Marine Sciences, such as biodiversity.

2. You will understand and know how to use the techniques for sampling in the water column, in sediments and on the sea bottom, and for measuring dynamic and structural variables.

3. You will know the principles underlying the laws, regulations and standards that govern the exploitation of the sea and its resources, and their diversity, and the instruments and techniques necessary for the evaluation and management of these resources.

4. You will know the instruments and techniques required for evaluating and managing the impacts of various activities and phenomena in the marine environment.

5. You will know about the socio-economic activities of entities associated with the marine environment, particularly regarding sustainability.

KNOW HOW:

6. You will know how to apply planning techniques related to the marine environment and the sustainable management of resources.

7. You will be able to handle data recording equipment and samples in the marine environment, and apply data processing, analysis and interpretation techniques, and will learn good scientific practices for responsible and safe experimentation.

8. You will be able to use the latest tools for the planning, design and execution of research projects, from the initial stages of identification and definition through to the evaluation of results and presentation of conclusions.

9. You will be able to devise programs for training, education and dissemination of knowledge about the sea.

10. You will be able to devise, execute and evaluate scientific and technical projects and reports related to the sea.

11. You will use advanced resources of communications and computing technology for resolving problems and seeking information in the field of the Marine Sciences.

12. You will be skilled in the practical use of models in the field of Marine Sciences.

WHAT ARE WE LOOKING FOR IN YOU?

The profile of the graduate in Marine Sciences is that of a professional who, from a demonstrated commitment to the conservation of the marine environment, has acquired a solid base of scientific knowledge, capable of relating to and interacting with professionals of diverse specialists. They are capable of synthesising and identifying relationships between the many different factors that are involved in the environmental and management issues affecting the marine environment.

FOR MORE INFORMATION, contact us at the:

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