

QUALIFICATION: DEGREE IN ENVIRONMENTAL SCIENCES

BOE:10/08/2010

YEAR OF COMMENCEMENT: 2009/2010

2. INFORMATION ABOUT QUALIFICATION

2.2. Main disciplines defining main areas of the qualification

(Provide UNESCO nomenclature and refer to disciplines, e.g., History, Engineering, Law Applied Linguistics, Molecular Biology, etc.)

ISCED 5A44
12 Mathematics
22 Physics
23 Chemistry
24 Life Sciences
25 Earth and Space Science
33 Technological Sciences
53 Economic Sciences

3. LEVEL OF QUALIFICATION

3.1.2. Adequacy of title for corresponding level of study

(Give descriptors listed in course content)

In accordance with Royal Decree 1393 of 2007 for the Organization of University Education, the Course Content proposed for the Degree in Environmental Sciences at the University of Huelva comprises a total of 240 credits, covering all theoretical and practical training the student is required to follow: foundation studies, mandatory and optional courses, seminars, internship experience, guided coursework, end of course project and other educational activities. Taking into account the nature of the course, the distribution of course credits is as follows:

Summary of course content and corresponding ECTS credits comprising the degree.

Course content	ECTS credits
Foundation courses	60
Mandatory courses	138
Optional courses	30
Internship experience	---
End of course project	12
Total	240

4. INFORMATION ABOUT COURSE CONTENTS AND OUTCOMES

4.2.2. Learning outcomes: Course aims; knowledge, skills and competences gained

- Students should demonstrate an understanding of an area of knowledge which develops the foundations laid during their secondary studies to a level to be found in advanced textbooks about the topic, including some aspects drawing on the most recent research into the field.
- Students should be able to apply their knowledge to their work or vocation in a professional manner, and be capable of constructing arguments and debating their field, and of solving problems within it.
- Students should be capable of collecting and interpreting relevant data (normally within their field), and of making judgements which reflect an awareness of social, scientific or ethical dimensions.
- Students should be able to transmit information, ideas, problems and solutions to both a specialist and non-specialist audience.
- Students should have developed the necessary study skills to undertake further studies with a high degree of independence.

5. INFORMATION ABOUT THE PURPOSE OF THE QUALIFICATION

5.2. Objectives of the qualification (including profile of competences whenever possible) and professional qualification (if relevant):

- To train professionals with a multi-disciplinary and global vision of environmental issues, incorporating perspectives from various fields. Environmental Science graduates will be capable, from this broad perspective, of coordinating and completing the work of specialists in various areas.
- To provide adequate training in the scientific, technical, social, economic and legal aspects of environmental studies, so that, as professionals, graduates are able to tackle environmental issues with rigour and with an interdisciplinary approach, taking into account the complex nature of the field and other social and economic questions affecting society.
- To provide a specific professional orientation, taking in all the above aspects, towards the preservation and management of the environment and natural resources, territorial planning, management and environmental quality in companies and administrations, environmental quality and health, and communication and education about the environment, from a perspective of sustainability.
- To provide professionals with the appropriate knowledge, techniques and practical tools for achieving all the goals they are set, and for allowing them to maintain an open and self-reliant attitude towards new problems and environmental situations, new legislation and technologies, and new perceptions and anxieties of society regarding the environment.

5.2.1. Summary of the objectives and general competences featuring in the course content.

- Ability to analyse and summarise
- Ability to organise and plan
- Spoken and written communication
- Computing skills relating to field
- Data Management skills
- Problem solving
- Decision making
- Teamwork
- Interdisciplinary teamwork
- Interpersonal skills
- Self-directed learning
- Adaptability to new situations
- Critical reasoning
- Ethical commitment
- Creativity
- Drive for quality
- Sensibility towards environmental questions
- Ability to apply theoretical knowledge to practical situations
- Using the Internet as a medium of communication and source of information
- Ability to communicate the subject to non-specialists
- Ability to understand the language and suggestions of other specialists
- Ability to be self-critical
- Initiative and entrepreneurial spirit

5.2.2. Specify whether the qualification confers the competence to practise a profession or confers a professional status, in accordance with national legislation, and whether it gives access to a regulated profession.

The BOJA (Official Bulletin of the Andalusian Regional Government) n° 219 published on 08/11/2011, recognises the profession of environmentalist as one of the professions regulated in Andalusia, requiring a post-secondary cycle of studies of at least four years duration. Depending on the choice of optional courses taken by students of the degree in Environmental Sciences, part of the following competences can be reinforced or acquired:

- The capacity to recognise and put into practice good practice in professional work.
- Economic valuation of natural goods, services and resources.
- The design and implementation of programmes for environmental communication.
- The design and implementation of rural development plans.
- Knowing the main methods for studying and analysing vegetation.
- Knowing and identifying the main plant forms in our environment.
- Understanding the range of flora and landscapes in the Iberian Peninsula in terms of biogeography, climate, edaphology and dynamics.
- Knowing the main threats and processes of deterioration in Spanish forestry.
- Valuing the environmental importance of forests.
- The capacity to apply the basic principles of physics, chemistry, mathematics, biology and geology to environmental knowledge.
- The capacity to analyse the environment as a system, identifying the factors, behaviours and interactions which comprise it.
- The capacity to integrate experimental evidence recorded in field and/or laboratory studies with theoretical information.

- The capacity to interpret and apply environmental regulations, and to develop environmental policies.
- The capacity to identify and evaluate environmental costs.
- The capacity to evaluate the interaction between the natural environment and society.
- The capacity to put into action waste management plans.
- The capacity to evaluate environmental deterioration and to plan corrective and/or restorative measures.
- The capacity to apply clean technologies.
- The capacity to implement environmental impact studies.
- The capacity to implant environmental management and auditing systems.
- The capacity to manage and optimise the use of energy.
- The capacity to evaluate and prevent environmental risks.
- The capacity for territorial planning and organisation.
- The capacity for the planning, management and conservation of natural goods, services and resources.
- The capacity to evaluate and prevent natural risks.
- The capacity to analyse and interpret data.
- The capacity to employ software and statistical tools applied to the environment.
- The capacity to draw up and interpret specialist maps and plans.
- The capacity for a multidisciplinary approach to environmental problems.
- The capacity to draw up and manage environmental projects.

6. ADDITIONAL INFORMATION

6.1. Add any necessary additional information which has not been included in previous sections (eg, if the qualification includes periods of study, internships or research in other institutions/companies/research centres or countries, or other interesting aspects of the institution(s) responsible for the qualification as yet unmentioned. In the case of double, multiple or combined qualifications, resulting from national or international agreements, include all information necessary for a correct understanding of the programme, describing the framework in which it has been designed (eg, Erasmus Mundus, Atlantis, etc.); briefly explain whether multiple, combined or double certificates are issued, and on the part of which institutions; if a combined, national or international academic, scientific or assessment committee is involved, describe its composition and explain its role, etc.)

- There is the opportunity to issue a double degree in environmental Sciences-Geology.

This degree unites the professional opportunities of the degrees in Environmental Sciences and Geology, and the course content for this double degree consists of a total of 132 credits in common, the first year being completely identical for the two degrees. This enables the students who so desire it to obtain both qualifications by studying a minimum of 111 additional credits of a total of 342 credits.

- Languages.

Before finishing the degree, students of Environmental Sciences are expected to accredit a level of B1 in English or other language generally used in professions relating to qualifications in this area.

- Internship experience.

The Faculty of Experimental Sciences aims to give students the opportunity to gain extramural work experience during their studies. Students can apply to participate in a programme of internships in companies in the final years of their degree. An Optional Course in the second semester of the 4th year places students in a company or institution in order to participate in work related to their studies and to the work of chemists. The appropriate collaboration agreements are centrally processed by the University Advisory Service for Internships, Employment and Self-Employment (SOIPEA), under the auspices of the Pro-Vice Chancellorship for Students of the University of Huelva. The availability of places on internship programmes is published before the registration period. In all cases, the process follows the University regulations in consonance with the agreements with each company or institution.

- Final assessment

Obligatory Requirement in the second semester of the 4th year. The final assessment consists of a theoretical and/or experimental piece of work, completed under the direction of one of the course teachers, chosen for the purpose. The final assessment can also be undertaken in the chemical industry or in other public or private institutions which have in place the appropriate agreements with the university. The final assessment takes the form of a monograph which must include a brief introduction to the background to the work, the objectives and workplan, the results and critical discussion of these, and conclusions. There is also a viva voce exposition of the assessment before a panel, conducted according to the regulations passed by the Faculty Board. The panel evaluates the exposition of the work undertaken, as well as the monograph itself, and also takes the tutorial report into account. To qualify for the viva voce examination, students must have passed all courses from the first three years of the degree. The final assessment can also take place in the first semester, bearing in mind that the student must not be registered for more than 30 credits per semester.

- Mobility.

The degree in Environmental Sciences participates in European student exchange programmes (Erasmus and Socrates), facilitating study trips by our students to universities in the European Union. We also have a national mobility programme with Spanish Universities offering Environmental Sciences. Grants are available to finance these trips. Among the objectives of these mobility programmes is that the students who take advantage of them can benefit from the social and cultural experience, and improve their CV in terms of employability, etc. In addition, participation in these programmes improves their skills in respect of communication, cooperation, adaptability and appreciation of other cultures.