

Degree	Type	Year	Semester
4313784 Interdisciplinary Studies in Environmental, Economic and Social Sustainability	OB	0	2

Contact

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Prerequisites

None.

Use of languages

Principal working language: english (eng)

Objectives and Contextualisation

The objective of the Master Thesis is to prepare students for future research work, namely a doctoral thesis or an R + D project in a company. Assessment of students' Master Thesis is not only based on the contents of the paper itself. It also takes into account other essential skills required by a researcher, such as the ability to synthesise information, the discussion of results, the preparation and giving of oral presentations and the appropriate use of language (written and spoken).

Skills

- Analyse how the Earth functions on a global scale in order to understand and interpret environmental changes on the global and local scales.
- Analyse, summarise, organise and plan projects related to the environmental improvement of product, processes and services
- Apply knowledge of environmental and ecological economics to the analysis and interpretation of environmental problem areas.
- Apply knowledge of environmental engineering to purification and decontamination in different environments
- Apply specific methodologies, techniques and resources to conduct research and produce innovative results in the area of Environmental Studies.
- Apply the acquired knowledge and methodologies of environmental, economic and social sustainability to the planning and control of environmental management policies and projects.
- Communicate and justify conclusions clearly and unambiguously to both specialised and non-specialised audiences.
- Communicate orally and in writing in English.
- Continue the learning process, to a large extent autonomously
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Seek out information in the scientific literature using appropriate channels, and use this information to formulate and contextualise research in environmental sciences.
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Work in an international, multidisciplinary context.

Learning outcomes

1. Analyse environmental processes and problems by applying theoretical, methodological and instrumental knowledge.
2. Apply specific methodologies, techniques and resources to conduct research and produce innovative results in the area of Environmental Studies.
3. Communicate and justify conclusions clearly and unambiguously to both specialised and non-specialised audiences.
4. Communicate orally and in writing in English.
5. Continue the learning process, to a large extent autonomously
6. Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
7. Interpret the diversities and complexities of territories and the environment with others of an economic, social and cultural nature.
8. Seek out information in the scientific literature using appropriate channels, and use this information to formulate and contextualise research in environmental sciences.
9. Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
10. Use knowledge of environmental engineering in the preparation of the master's dissertation.
11. Use knowledge of environmental improvement projects when preparing the master's dissertation.
12. Use knowledge of how the Earth functions on a global scale in the preparation of the master's dissertation.
13. Use the concepts and methods learned in the courses on environmental and ecological economics in the preparation of the master's dissertation.
14. Work in an international, multidisciplinary context.

Content

There are no theoretical contents for this course.

Methodology

In November/December, there will be a research lines presentation session in order to introduce students the topics available for their Master Thesis. Students will be then contacting the main researchers of the research lines they are interested in to decide who will be their supervisor and the topic of their research.

The research work done by the student and guided by the supervisor will end up with the elaboration of a research paper.

Activities

Title	Hours	ECTS	Learning outcomes
Type: Supervised			
Regular meetings with the supervisor	25	1	1, 7, 9, 3, 6
Type: Autonomous			
Elaboration of a research paper	350	14	9, 3, 6, 5, 13

Evaluation

Students will be assessed based on the written paper as well as on an oral presentation. They are required to submit a research paper not exceeding 8,000 words, which must include the following sections:

- Abstract
- Introduction: antecedents and justification for the Master Thesis
- Objectives
- Research study plan and anticipated results
- Results
- Discussion of results
- Bibliography

Oral presentations will be held between 10 and 20 days after the submission deadline. Students must consider this in order to guarantee their presence at the scheduled date and time.

The final grade for the paper will consist on the average mark of the supervisor's report (30%) and the mark given by the committee (70%) both to the paper itself and to the oral presentation. The committee assesses:

- For the written paper:
 - Appropriate use of language. The paper can be written in English, Catalan or Spanish. Language choice is not a criterion for evaluation and the tribunal will only assess correct and appropriate use of the language chosen.
 - Format: how well this follows the "guidelines for papers" established by the journal chosen by the student.
 - Content and academic originality.
 - Conciseness and meeting the required length (maximum of 8,000 words)
 - Ability to discuss and interpret the results of the research.
 - Interdisciplinary scope of the research.
- For the oral defence:
 - Students' ability to articulate and express him/herself.
 - Conciseness and meeting the established time limit (30 minutes).
 - Quality of the presentation.
 - Ability to answer the questions asked by the committee.

Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Oral presentation	30%	0	0	8, 9, 3, 6, 5, 14, 13
Submission of a research paper	40%	0	0	1, 2, 4, 12, 10, 7, 14, 13, 11
supervisor's report	30%	0	0	1, 2, 8, 4, 12, 10, 7, 9, 3, 6, 5, 14, 13, 11

Bibliography

To be defined.