

Degree	Type	Year
2501915 Environmental Sciences	OT	4

## Contact

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## Teachers

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## Teaching groups languages

You can view this information at the [end](#) of this document.

## Prerequisites

It is highly recommended to enroll in this subject at the same time as the TFG.

In fact, following the instructions of the CCAA Coordination, you must consider this subject "compulsory", to be able to do the TFG.

## Objectives and Contextualisation

General objectives:

- To provide the knowledge and the main tools to successfully develop the TFG.
- To know how to develop all the parts and stages of a project based on a specific topic / demand.
- To learn how to defend the project through oral presentation.
- To become familiar with teamwork.

Specific objectives:

- To provide the basic methodological tools for a project: bibliographic research; qualitative and quantitative data collection; field work; data analysis and processing and mapping.
- To provide the necessary tools for the presentation of a project: ICT resources; dynamisation tools and oral communication techniques.
- To design and calculate the budget (economic and environmental) of a project.
- To make known the different typologies of projects in the field of environmental sciences (competitive research projects, company and private sector projects, administration projects) through the development of different types of case studies.

## Competences

- Adequately convey information verbally, written and graphic, including the use of new communication and information technologies.
- Analyze and use information critically.
- Collect, analyze and represent data and observations, both qualitative and quantitative, using secure adequate classroom, field and laboratory techniques
- Demonstrate adequate knowledge and use the most relevant environmental tools and concepts of biology, geology, chemistry, physics and chemical engineering.
- Demonstrate adequate knowledge and use the tools and concepts of mathematics, computer science and statistics to analyze and manage environmental issues.
- Demonstrate adequate knowledge and use the tools and concepts of the most relevant social science environment.
- Demonstrate concern for quality and praxis.
- Demonstrate initiative and adapt to new situations and problems.
- Develop communication strategies on environmental issues, including environmental risks
- Information from texts written in foreign languages.
- Integrate environmental information in order to formulate and test hypotheses.
- Integrate physical, technological and social aspects that characterize environmental problems.
- Learn and apply in practice the knowledge acquired and to solve problems.
- Quickly apply the knowledge and skills in the various fields involved in environmental issues, providing innovative proposals.
- Teaming developing personal values regarding social skills and teamwork.
- Work autonomously

## Learning Outcomes

1. Adequately convey information verbally, written and graphic, including the use of new communication and information technologies.
2. Analyze and use information critically.
3. Communicate environmental problems with proper attention to the problems of environmental risk and the relevant regulations in the fields of safety and environmental health.
4. Demonstrate concern for quality and praxis.
5. Demonstrate initiative and adapt to new situations and problems.
6. Demonstrate knowledge of some of the main areas of scientific disciplines environment.
7. Demonstrate knowledge of some of the main areas of the social sciences in the environment.
8. Identify processes sciences, life sciences and social sciences in the surrounding environment and evaluate them properly and originally.
9. Information from texts written in foreign languages.
10. Integrate environmental information with environmental knowledge acquired from the sequence of observation, recognition, synthesis and modeling.
11. Know the main debates of current scientific thinking, especially regarding the environment.

12. Knowing the main theories and methodologies of environmental education and communication and the ability to apply to practical cases these theoretical teachings.
13. Learn and apply in practice the knowledge acquired and to solve problems.
14. Learn and apply the most important epidemiological analysis of environmental risks and the overall risk analysis methodologies.
15. Learn and apply the theoretical and practical aspects of environmental impact assessment principles.
16. Learn the main physical and biological bases of oceanography and their interactions.
17. Observe, recognize, analyze, measure and properly and safely represent environmental processes.
18. Prepare a report explaining the results obtained in the performance of work in the field of environmental sciences.
19. Teaming developing personal values regarding social skills and teamwork.
20. Work autonomously

## Content

General and Provisional syllabus of the subject:

1. Introduction and the relation between OGP and TFG
2. The main parts of a TFG. How do we organize a project?
  - a. Bibliographic and documentary research
  - b. Data collection and fieldwork
  - c. Analysis and treatment of qualitative and quantitative data
    - i. Data presentation: graphs and tables
    - ii. Qualitative analysis techniques: interviews / surveys
3. Project presentation tools
  - a. ICT resources, online work dynamics tools, participation
  - b. Oral communication techniques
4. Budget in projects
  - a. Environmental budget (carbon footprint)
  - b. Economic budget in projects for private companies and administration
5. Types of projects I. Public Administration
6. Types of projects II. Private Companies
7. Types of projects III. Research
8. Case studies I. Public Administration projects
9. Case studies II. Private Companies Projects
10. Case study III. Research projects

## Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Seminars	3	0.12	2, 4, 6, 7, 8, 11, 12
Solving problems classes	3	0.12	2, 4, 5, 9, 10, 13, 14, 15, 17, 19, 20
Theory	18	0.72	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Type: Supervised			
Tutoring	10	0.4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Work preparation	18	0.72	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Type: Autonomous			
Reading. study of the received information and information search	20	0.8	2, 4, 5, 8, 9, 11, 12, 13, 14, 15, 16, 20

Theoretical classes will be combined with the organization of discussion sessions in relation to the fundamental parts and elements that the final project must include.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Assessment

### Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Cross-check evaluation	5%	0	0	2, 4, 10, 17, 19
Evaluation activity	80%	3	0.12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
External and expert evaluation	15%	0	0	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

The evaluation process of this subject will be based on the presentation and dissertation of a given thematic project (public administration, private company and research). The project will be developed by a group of 3-4 students and will be guided by one of the professors of the subject. The final mark will be the result of: evaluation from the tutor (80%), external evaluation from an expert that will be part of the tribunal (15%) and a cross-check evaluation performed by the rest of the students (5%).

Failure to present and/or oral defense of the project implies a grade of NON-ASSESSABLE for the subject.

## Bibliography

The available at the beginning of the course.

## Software

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## Language list

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	1	Catalan	first semester	afternoon
(SEM) Seminars	1	Catalan	first semester	afternoon
(TE) Theory	1	Catalan	first semester	afternoon