

Planning and Management of Water

Code: 104265
ECTS Credits: 6

Degree	Type	Year	Semester
2503710 Geography, Environmental Management and Spatial Planning	OT	4	2

Contact

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Teaching groups languages

You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Prerequisites

None

Objectives and Contextualisation

This subject offers the tools for the water planning and management in a Mediterranean context. For more details, see contents.

Competences

- Apply the basic regional, environmental and urban legal regulations for regional and environmental planning.
- Design and manage regional, environmental and urban planning instruments.
- Draw up action and intervention plans in the territory which respond to sociodemographic and environmental problems.
- Generate innovative and competitive proposals in professional activity.
- Introduce theoretical and applied aspects of the main regional, environmental and urban policies in professional practice.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Work cooperatively in multidisciplinary teams.

Learning Outcomes

1. Describe the water cycle from a physical, socioeconomic and systematic viewpoint.
2. Generate innovative and competitive proposals in professional activity.
3. Identify methods and techniques for managing the water cycle.
4. Propose ways of managing water and energy within the Catalan regulatory framework.
5. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
6. Understand water legislation.
7. Work cooperatively in multidisciplinary teams.

Content

1. Introduction to the integral water cycle

2. Application of GIS in the planning and management of water
3. Planning and evaluation of water systems
4. Wastewater management and reuse
5. Drinking water management
6. Economic water management

Methodology

Docent methodology will be lectures, practices and field work.

At the beginning of the course, the teacher will explain the protocol of measures and good practices for field trips.

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.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Field work	12.5	0.5	1, 3, 7
Lab	12.5	0.5	2, 5, 7
Lectures	23.5	0.94	6, 1, 3, 5
Type: Supervised			
Tutorials	15	0.6	5, 7
Type: Autonomous			
Lab	15	0.6	2, 5, 7
Oral speech	10	0.4	5

Report	40	1.6	2, 3, 7
Report field work	20	0.8	1, 2, 3, 5, 7

Assessment

- GIS practice (10%)

A specific case to be carried out with GIS is set out: Finding a body of water and associating and calculating the percentages and / or surface area of its uses and land cover. Export this map with topographic base and orthophotomap.

- Ecological quality assessment (25%)

There will be a field trip to the Besòs or Tordera basin where the students will have to make an assessment of the

- Preparation and elaboration of a school unit or project (25%)

The students must develop a didactic unit for a specific audience (primary, secondary and/or citizenship education)

- Conflict planning (40%)

Group work: they will have to search for a problem related to water planning and management, detect the main actors involved, identify the problems and create a series of solutions that can be applied to what most of the actors involved they benefit from it. This work will be divided into an oral presentation (20%) and a written work (20%).

Evaluation criteria

In the event that two of the assessable points have not been presented or have been suspended (grade below 5), students may be eligible for a resit exam, the final grade after the resit exam may not exceed 7. Students who want to choose to raise a grade can also apply, in no case will it mean a reduction in the grade they already have.

Not Evaluable

The student will receive the grade of "Not assessable" as long as he has

Review of marks

At the time of carrying out each assessment activity, the teacher will inform

Single assessment

This subject does not incorporate single assessment.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Lab	10	0	0	5
Oral Speech	25	1.5	0.06	3, 4
Project	40	0	0	6, 1, 3, 4, 7
Report of school curriculum plan/project	25	0	0	2, 4, 7

Bibliography

At the beginning will be gives the reading list

Software

Office and QGIS