



COURSE DATA

DATA SUBJECT

Code: 33104

Name: Project elaboration and management

Cycle: Undergraduate Studies

ECTS Credits: 4.5

Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
1104 - Degree in Environmental Sciences	Facultat de Ciències Biològiques	3	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1104 - Degree in Environmental Sciences	Development and management of projects	COMPULSORY

COORDINATION

FUENTES BARGUES DANIEL

SUMMARY

The subject "Development and Project Management" is a required character that is given quarterly in the third degree course of Environmental Sciences at the University of Valencia. The course, 4.5 ECTS, has a theoretical and a practical point of view, so the basic theoretical knowledge is complemented by both the resolution of questions as well as reports.

The project implementation requires the mastery of a set of techniques, which make use of the multidisciplinary knowledge acquired in other subjects in the degree, in order to give effective resolution of specific technical issues raised by the Administration or a promoter. The course aims to give students the knowledge and skills necessary to compose, organize, implement, manage and evaluate projects, focusing mainly on the environmental aspects. Thus, the student will acquire a good basis both for the development of their final thesis as to the development and management of projects in their future careers.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS



COMPETENCES / LEARNING OUTCOMES

1104 - Degree in Environmental Sciences

Capacidad de análisis crítico y síntesis.

Capacidad de comunicación oral en las exposiciones públicas y de argumentación de opiniones personales.

Capacidad de manejar el inglés para la lectura de documentos y elaboración de informes.

Capacidad de manejo de las fuentes expertas en contenidos científicos.

Capacidad de organizar y planificar el trabajo individual, grupal y el estudio.

Capacidad de planificar, diseñar, desarrollar y coordinar proyectos.

Capacidad de usar de forma adecuada los términos científicos ambientales.

Compromiso ético en el ejercicio de la profesión de ambientólogo.

Conocer y saber aplicar las diversas técnicas de comunicación, interpretación y educación ambiental.

Conocer y saber utilizar las diferentes fuentes de información y documentación especializada en educación ambiental disponible en todos los ámbitos.

Conocimientos básicos sobre los planteamientos y enfoques de la educación ambiental y dominio de la terminología específica.

Conocimiento y capacidad de aplicación de técnicas y estrategias para hacer más efectiva la comunicación y divulgación de contenidos científicos sobre temas ambientales.

Motivación por la calidad.

DESCRIPTION OF CONTENTS

1. The project and its documents

Types of projects.

Project documents: Memory. Attached memory. Projects and complementary documents. Plans. Specifications. Budget.

The drafting aspects of a project.

Description of the process.



2. The project-building process

Description of the process. Law on public sector contracts.

3. Project Management

Basic Principles.

Human Resource Management: Project Manager. Teamwork.

Evaluation and selection of alternatives: economic indicators. Feasibility studies. Environmental economic analysis.

Planning and programming techniques: Gantt Chart. Pert Method. Critical Path Method.

Control and monitoring of environmental projects.

4. Case studies

Development of blueprint for the application of integrated environmental authorization for a particular activity or facility.

Development of a project to recover a degraded space.

Develop a project management and conservation of natural resources.

Development of a project to implement a management system.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Tutorials	2,00
Theory	19,00
Computer classroom practice	8,00
Classroom practices	16,00
Total hours	45,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	27,00
Independent study and work	20,00
Preparation of lessons	20,50
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	67,50

TEACHING METHODOLOGY



The development of the course is structured around four axes: the lectures, practical lessons, carrying out group work and tutoring.

Theory lessons: We will use the lecture model, where the teacher will give an overview of the issue impacting on the key to understanding it. Also will recommend adequate resources for the further deepening of the subject by the student.

Practical lessons: Practical classes will include classes of problems in the classroom or computer lab and seminar sessions.

- **Classes of problems:** The professor will explain a number of problems-type that allow students to acquire the necessary skills to analyze and solve problems of the same type. Also, it dealt a series of problems that students must meet and deliver on the dates specified individually.
- **Computer classroom:** The teacher will explain the basic operation of two tools for development and project management: MS Project 2007 and Presto. Students will become familiar with these programs to perform a series of simple examples.
- **Seminar:** In item 4, from a base information provided by the teacher, students should address groups (7-10 people) to develop the fundamental aspects of a project for environmental reasons. The core of these projects will be developed in workshop sessions where the teacher will guide the work of students. After the project, each group will conduct a classroom presentation showing the key aspects of the work performed.

The kinds of problems as well as the seminar sessions will enhance the student's skills for decision-making, as key to development and project management.

Tutoring: The tutoring sessions will be raised as to resolve any doubts arising in the problem solving or project that students must perform on their own. In addition, the teacher will guide the student on the most appropriate methodology for learning the fundamentals of the subject. Tutorials will develop individual and group level. The mentoring group will be scheduled by the teacher.

To develop all these activities both students and the teacher will use the Virtual Classroom platform.

EVALUATION

The assessment of student learning will take place through continuous assessment and final evaluation.

Continuous assessment:

An evaluation of the problems that the teacher has posed to students in the classes of problems and computer classroom. These exercises will involve 30% of the final mark. For this evaluation, students will need to attend 75% of the provided computing and problems sessions.



Final assessment:

- Project. Students must submit the documents that make up the project in their group. Also, they should make a presentation of the project where they must engage all members of the group. To evaluate this part (30% of the final grade) it will be considered both the quality of the documents (with 25%) as the quality of its presentation (with 5%). For the evaluation of the project, students will need to attend 75% of the planned seminar sessions.

- Exam. Students will conduct a review at the end of the semester that will be valued at 40% of the final grade. This examination consists in solving a series of theoretical and practical issues, in order to verify that they have assimilated the basics of the subject.

To pass the course it will be needed an average score of 5 out of 10, reaching a minimum score of 5 points on each part of the exam as well as on the project. Students who fail the course in the first call should repeat the failed parts for the second call.

To apply for advance examination of this subject, students should be aware that they are required to fulfil all the mandatory activities outlined in this guide.

REFERENCES

- de Cos Castillo, M. Teoría General del Proyecto: Volumen I: Dirección de Proyectos/Project Management. Volumen II: Ingeniería de Proyectos/Project Engineering. Editorial Síntesis. Madrid 1997.
- Gómez-Senent, E y otros. Cuadernos de Ingeniería de Proyectos. Vol II: Del diseño de detalle a la realización. Vol III: dirección, gestión y organización de proyectos. UPV Servicio de Publicaciones. Valencia 2004.
- Lock, D. Fundamentos en la gestión de proyectos. Ediciones AENOR. Madrid 2003.



- Pereña, J. Dirección y gestión de proyectos. Editorial Díaz de Santos 1996.
- Fiksel, J. Ingeniería de diseño medioambiental. Editorial McGraw-Hill. New York 1996
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- Sánchez Romero, M.A. y otros. Cuestiones y problemas resueltos de dirección y gestión de proyectos. UPV Servicio Publicaciones. Valencia 2008. N° 106
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