

## Project Management

Code: 101768  
ECTS Credits: 6

**2025/2026**

Degree	Type	Year
Aeronautical Management	OB	3

### Contact

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### Teaching groups languages

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

### Prerequisites

In principle, no specific prior knowledge is required.

### Objectives and Contextualisation

The objective of the subject Project Management is to introduce the student to the knowledge, processes, skills, tools and techniques suitable for project management, so that the application of them allows to meet the requirements for the development of projects and can have a considerable impact on its success.

### Competences

- Communication.
- Identify, develop and maintain the necessary resources to meet the tactical and operative needs inherent to air transport activities.
- Participate in human resources management, correctly applying the different concepts involved: psychology applied to organisations, internal and external communication and economic and legal factors.
- Personal attitude.
- Personal work habits.
- Thinking skills.
- Use knowledge of the fundamental principles of mathematics, economics, information technologies and psychology of organisations and work to understand, develop and evaluate the management processes of the different systems in the aeronautical sector.
- Work in teams.

### Learning Outcomes

1. Accept and respect the role of the various team members and the different levels of dependence within the team.
2. Adapt to unexpected circumstances.
3. Communicate knowledge and findings efficiently, both orally and in writing, both in professional situations and with a non-expert audience.
4. Critically assess the work done.
5. Develop critical thought and reasoning.
6. Develop systemic thinking.
7. Develop the ability to analyse, synthesise and plan ahead.
8. Identify, manage and resolve conflicts.
9. Identify the basic processes of project management.
10. Maintain a proactive and dynamic attitude towards career progression, personal growth and continuous professional development. Have the will to succeed.
11. Make decisions.
12. Make efficient use of ICT in communicating ideas and results.
13. Manage time and available resources. Work in an organised manner.
14. Plan and execute a project to develop a simple sub-system within the sector.
15. Prevent and solve problems.
16. Take on the role of project team leader.
17. Work cooperatively.
18. Work independently.
19. Working in complex or uncertain environments and with limited resources.

## Content

Topic 1: Introduction to Project Management

What is a project?

Project management: Overview

Project management: Need and interest

Different forms of project management

The systems approach: Overview

Topic 2: The development cycle of a system

The life cycle of a system

Definition phase

Conception phase

Execution phase

Start-up phase

Transfer phase

Phases scheme (purposes and activities)

Project phases duration

Topic 3: The Feasibility Study

What is the feasibility study?

The objectives of the feasibility study

Different proposals of the feasibility study

#### Topic 4: Project Planning

Introduction

The Project Master Plan

Project organization: Responsibilities

Scheduling of activities: The Gantt chart

#### Topic 5: Graph-based Scheduling Methods:

Introduction

Scheduling methods

Scheduling compatible with resources

#### Topic 6: Cost Analysis

Introduction

The cost estimating process

Budget and accounting management

Scheduling and cost control

#### Topic 7: Risk Management

Introduction

Risk identification

Risk assessment

#### Topic 8: Project Control

Introduction

Performance analysis

Changes control

Reports

## Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practical classes	12	0.48	16, 9, 14, 17

Problem classes	12	0.48	16, 7, 5, 9, 14
Theory classes	26	1.04	16, 9, 14
Type: Supervised			
Follow-up of the assigned practical case	12	0.48	4, 7, 5, 15, 17
Type: Autonomous			
Development of the assigned practical case	30	1.2	2, 16, 4, 6, 7, 5, 13, 9, 8, 14, 11, 15, 17, 19
Exercises	25	1	16, 7, 5, 9, 14, 18
Study	25	1	7, 5, 13, 10, 11, 15, 18

### Directed activities

Theory classes: Lectures on fundamentals and techniques, with TIC support and full group interaction.

Problem classes: Learning techniques of project management through problem solving.

Practical classes: Introduction sessions to the use of computer tools to support project management. Practical sessions using the Microsoft Project project management tool. Attendance at practice sessions is mandatory. You can miss 1 session without justification.

### Supervised activities

Follow-up of the assigned practical case: Sessions for the planning and subsequent follow-up of the assigned practical cases (projects). Debate and decision making in each work group. Interaction between groups.

Oral presentation of the assigned practical case: Sessions of presentation and oral defense of the assigned practical case to each group (project). Discussion in full group of the approach and development of the different projects presented.

### Autonomous activity

Development of the assigned practical case: Debate and decision making, in each working group. Development of work according to the different roles assigned. Preparation of the oral presentation.

Exercises: Exercises on techniques of project management.

Study: Personal work of consolidation of knowledge.

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
Delivery of the written report of the case study, Exercises to be	40%	4	0.16	2, 16, 1, 4, 3, 6,

delivered, Presentation and oral defense of the case study				7, 5, 12, 13, 9, 8, 10, 14, 15, 17, 19
Reports (Practices)	20%	0	0	3, 7, 5, 14, 17
Written exam	40%	4	0.16	2, 4, 3, 7, 5, 13, 11, 15, 18, 19

This subject does not consider the single assessment system.

See description in Catalan or Spanish.

## Bibliography

Nicholas, John M., Steyn, H. *Project Management for Engineering, Business and Technology*, Sixth edition. Taylor & Francis Group, 2021

Nicholas, John M. *Project management for engineering, business and technology*, Fifth edition. Loyola University Chicago, Herman Steyn. 2017

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Companys Pascual, Ramón; Corominas Subias, Albert. *Organización de la producción I: Diseño de sistemas productivos 2*. Edicions UPC, 1991.

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Morales, Carlos Javier. *Guía para hablar en público*. Madrid: Alianza Editorial, LP 7010, 2001.

Project Management Institute (PMI): <http://www.pmi.org/>

PMI Barcelona, Spain Chapter: <http://www.pmi-bcn.org/>

## Software

Microsoft Project Professional

## Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
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(PAUL) Classroom practices	11	Spanish	second semester	afternoon
(PAUL) Classroom practices	12	Spanish	second semester	afternoon
(PLAB) Practical laboratories	21	Spanish	second semester	afternoon
(PLAB) Practical laboratories	22	Spanish	second semester	afternoon
(PLAB) Practical laboratories	23	Spanish	second semester	afternoon
(TE) Theory	11	Spanish	second semester	afternoon