

COURSE GUIDE

2025/26

**Faculty** 345 - Faculty of Engineering - Bilbao

**Degree** DIPRO13a - Master in Project Management

**Cycle** .

**Year** .

COURSE

504904 - Project monitoring and control

**Credits, ECTS:** 3

COURSE DESCRIPTION

The objective of this course is to introduce students to the monitoring and control processes in Project Management. First, the basic procedures that are carried out in project control are presented and the control processes defined by PMI, IPMA and ISO standards are introduced.

Then, the need for the earned value method, the core of the course, is explained, putting into practice the knowledge acquired both in classroom and in computer practices.

Finally, the limitations of the earned value method are introduced in order to present its main extensions.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

COMPETENCIAS DE LA ASIGNATURA

To apply the knowledge of the processes and tools that define the theoretical foundations of the different areas of technical knowledge of the discipline of project management.

To develop project proposals using the processes and tools that define the theoretical foundations of the different areas of technical knowledge of the discipline of project management.

To develop the organizational and management capacity for an efficient project management, using the theoretical and technical tools of the project management discipline.

RESULTADOS DE APRENDIZAJE DE LA ASIGNATURA

The student who successfully completes this subject should be able to:

- List the basic project control procedures that define the main Project Management standards.
- Evaluate the status of a project using the earned value method for project control.
- Explain the limitations of the earned value method and describe the main extensions of the earned value method.

Theoretical and Practical Contents

Introduction to Project Control. Methods and tools for Project Control. Standards in Project Control.

Earned Value Method. Basic concepts. Deviation and performance indicators. Forecast estimation. Advances of the method (Earned Schedule).

Development of exercises in the classroom and use case analysis.

Control practices using computer tools and applications such as Excel, MsProject.

METODOLOGIA (ACTIVIDADES FORMATIVAS)

Actividad Formativa	Hours	Porcentaje presencialidad
Exercises	20	10 %
Groupwork	25	10 %
Expositive classes	30	33 %

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	10		10		10				
Horas de Actividad No Presencial del Alumno/a	10		20		15				

**Legend:** M: Lecture-based S: Seminar GA: Applied classroom-based groups

GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups

TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation tools and percentages of final mark

Denominación	Ponderación mínima	Ponderación máxima
Attendance and participation	10 %	30 %
Written examination	20 %	30 %
Practical tasks	0 %	40 %
Writing up the teamwork	30 %	60 %



## ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The evaluation of the subject is carried out continuously throughout the course.

The following factors are taken into account in the grading of the course:

Attendance (10%): Although attendance is not compulsory, it is highly recommended due to the contents developed in the classroom. Therefore, attendance is part of the calculation of the final grade.

Individual work (30%): Students must submit a work designated at the beginning of the course. The work will be delivered by uploading it to egela within the defined deadlines. In order to pass the course, the work must have obtained a grade higher than 5 out of 10.

Team work (35%): At the beginning of the course, students will be assigned to work teams of 3 to 6 people. Each team will have to deliver a work designated at the beginning of the course. The work will be delivered by uploading it to egela within the defined deadlines. If the schedule allows it, the work will also be defended orally. In order to pass the course, the work must have obtained a grade higher than 5 out of 10.

Exam (25%): As in the certification exams of the associations of project management professionals, the exam will be in the form of a test with several answer options. In order to pass the course, the work must have obtained a grade higher than 4 out of 10.

The grade of the course will be obtained by applying to each of the factors (attendance, individual work, team work, exam) its corresponding weight.

If any of the work (individual or team work) has not passed the established cut-off mark, the final grade for the course will be Not Shown.

If the exam grade is lower than 4.0, the final grade of the course will be that corresponding to the exam grade.

If the student decides to waive the Continuous Evaluation of this course, he/she must communicate it in writing before the deadline for the presentation of the individual work. This date can be found in the Student Guide handed out in class and available in the eGela platform.

In this case, in order to pass the course, the student will be evaluated through a written exam that may contain additional questions to those posed in the exam to which continuously evaluated students are submitted and that will include all the contents studied throughout the four-month period corresponding to the exam. This evaluation will be completed with an oral exam that will take place on the same day of the written exam, prior appointment to the students enrolled in that call.

In the oral exam the students will be asked about the contents studied in the classroom, as well as about the activities carried out during the corresponding four-month period. The student, in order to pass the course, must pass both tests.

In the event that health conditions prevent the realization of a teaching activity and/or face-to-face evaluation, a non-face-to-face modality will be activated, of which students will be promptly informed (applicable to all the calls: ordinary, extraordinary and advance).

## EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Those who must submit to the extraordinary call will do so in the same way in which they presented themselves in the ordinary call. That is to say, those who underwent the continuous evaluation will complete the parts (individual work, team work, exam) that they did not pass in the ordinary call.

The grade for the course will be obtained by applying the corresponding weight to each of the factors (attendance, individual work, team work, exam).

If any of the work (individual or team work) has not passed the established cut-off mark, the final grade for the course will be Not Shown.

If the exam grade is lower than 4.0, the final grade of the course will be that corresponding to the exam grade.

Those who waived the continuous evaluation, will be submitted to a written and oral exam as described in the previous section (see ordinary call: orientations and waiver).

## MANDATORY MATERIALS

Kerzner, H.; Project Management: A systems approach to planning, scheduling and controlling. Ed. John Wiley, 2003.  
Project Management Institute A Guide to the Project Management Book of Knowledge, Project Management Institute. 2013.

Fleming Q.W., Koppelman J.M., ¿Earned Value Project Management¿, Project Management Institute

BIBLIOGRAPHY

**Basic bibliography**

Kerzner H., PhD. "Project Management. A systems approach to planning, scheduling and control" 10th edition, Wiley & Sons, 2009

PMI Standards Committee, "A guide to the Project Management Body of Knowledge (PMBOK guide)", 6th edition, 2017

Fleming Q.W., Koppelman J.M., "Earned Value Project Management", Project Management Institute

**Detailed bibliography**

Burke R., ¿Project Management. Planning and Control techniques¿, Wiley & Sons, 2003

Anbari, F. ¿Earned value method and extensions¿ Project Management Journal, vol.34(4), pp. 12-23, 2003

**Journals**

International Journal of Project Management  
Project Management Journal

**Web sites of interest**

<http://www.earnedschedule.com/>