

COURSE GUIDE

2025/26

Faculty

345 - Faculty of Engineering - Bilbao

Cycle

Degree

DIPRO13a - Master in Project Management

Year

COURSE

504900 - Project Planning

Credits, ECTS: 3

COURSE DESCRIPTION

The aim of this subject is to provide students with the knowledge and tools necessary to be able to carry out the planning and programming of a project in a rigorous and complete manner, maximising the probability of success.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

COMPETENCIAS DE LA ASIGNATURA

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 organizational and managerial capacity for efficient project management, using the theoretical and technical tools of the project discipline

RESULTADOS DE APRENDIZAJE DE LA ASIGNATURA

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

- Use tools for estimating project resources.
- Design a project schedule
- Use software tools applied to project planning.

Theoretical and Practical Contents

Introduction to the Project Life Cycle
Project Phases
Project Planning and Scheduling Processes
Critical Path Method (CPM)
Notions of Earned Value
Notions of Critical Chain
Planning and Scheduling Practices (MS Excel®, MS Project®)

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	20 %	50 %
Writing up the teamwork	20 %	50 %

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The assessment 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. For this reason, attendance forms part of the calculation of the final grade.

Individual assignments (30%): Students must hand in an assignment designated at the beginning of the course. The work will be handed in 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 (30%): At the beginning of the course, students will be assigned to work teams of between 3 and 6 people. Teamwork in this class is considered very relevant and therefore has a significant importance in the evaluation of students. Each team will have to hand in a designated piece of work at the beginning of the course. The work will be handed in by uploading it to egela on the defined deadlines. If the timetable 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 (30%): As in the certification exams of the professional associations of project management, the exam will be in the form of a multiple-choice test. In order to pass the course, the work must have obtained a grade of more than 4 out of 10. 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 mark for the course will be No Show.

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

If the student decides to waive the Continuous Assessment of this subject, he/she must communicate it in writing before the deadline for the submission of the individual work. This date can be found in the Student Guide available on the eGela platform.

In this case, in order to pass the course, the student will be assessed by means of a written exam that may contain additional questions to those posed in the exam to which students who are assessed on a continuous basis are submitted and which will include all the contents studied throughout the four-month period corresponding to the exam. This assessment will be completed with an oral exam which will take place on the same day as the written exam, by prior appointment for students registered for this exam. In the oral exam, 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. In order to pass the course, students must pass both tests.

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

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Those who have to sit the extraordinary call will do so in the same way as they did in the ordinary call. In other words, those who took the continuous assessment will complete the tests (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 mark for the course will be No Show.

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

Those who waive the continuous assessment, will be submitted to a written and oral exam as described in the previous section (Ordinary call: orientations and waiver).

MANDATORY MATERIALS

The course is managed through the egela platform. Here the student will find the transparencies used in class and other help materials. The statements of individual and team assignments will also be found there, and the places where to upload them.

BIBLIOGRAPHY

Basic bibliography

Kerzner, H.; Project Management: A systems approach to planning, scheduling and controlling. Ed. John Wiley, 2009.
Project Management Institute A Guide to the Project Management Book of Knowledge, Project Management Institute. 2021.

Programación y Planificación de Proyectos. Ordieres J. 2007. Apuntes de la materia. Universidad de la Rioja

Detailed bibliography

Rabbani, M., Fatemi Ghomi, S.M.T., Jolai, F., Lahiji, N.S. "A new heuristic for resource- constrained project scheduling in stochastic networks using critical chain concept" 2007 European Journal of Operational Research 176 (2), pp. 794-808 0
Tukel, O.I., Rom, W.O., Eksioglu, S.D. "An investigation of buffer sizing techniques in critical chain scheduling" 2006 European Journal of Operational Research 172 (2), pp. 401-416 0

Turner "The Handbook of Projectbased Management: Improving the Process for Achieving Strategic Objectives" / J. Rodney Turner. McGrawHill, Maidenhead, England, United Kingdom, 1998



Chang, Y.-h.I., Miller, C.L. "PLM curriculum development: Using an industry-ponsored project to teach manufacturing simulation in a multidisciplinary environment" 2006 Journal of Manufacturing Systems 24 (3), pp. 171-177 0

Chen, J.-Z., Wang, H.-F., Liu, T.-T., Zhang, Y.-L. "Project management system in collaborative product development environment" 2006 Jisuanji Jicheng Zhizao Xitong/Computer Integrated Manufacturing Systems, CIMS 12 (10), pp. 1674-1682 0

Journals

International Journal of Project Management
Project Management Journal

Web sites of interest

<http://www.rogo.com>
<http://www.goldratt.com>
<https://www.pmi.org/>
<http://www.ipma.world/>

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