



DEGREE CURRICULUM

PROJECT METHODOLOGY

Coordination: PARE BUSTO, MARC

Academic year 2023-24

Subject's general information

Subject name	PROJECT METHODOLOGY			
Code	102500			
Semester	1st Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Bachelor's degree in Industrial Organization and Logistics Engineering	4	COMPULSORY	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Activity type	PRAULA		TEORIA
	Number of credits	3		3
	Number of groups	1		1
Coordination	PARE BUSTO, MARC			
Department	INDUSTRIAL AND BUILDING ENGINEERING			
Teaching load distribution between lectures and independent student work	Lectures activities: 60 hours Independent study work: 90 hours			
Important information on data processing	Consult this link for more information.			
Language	Catalan			
Distribution of credits	3 Theory 3 Practice			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
PARE BUSTO, MARC	marc.pare@udl.cat	3	
RAVENTOS RICO, ALBERT	albert.raventos@udl.cat	3	

Learning objectives

Learning results:

- The students understand the reality of the profession of engineer, the competences and responsibilities in the development of the profession.
- The students understand the definition, structure and operation of technical offices
- The students start in the organization, planning, execution and management of projects.
- The students acquire knowledge about the different types of technical work that the engineer can perform and the methodology to carry it out.
- The students acquire knowledge about the different criteria for the elaboration of technical documents.
- The students acquire knowledge about the legislative and regulatory framework that affects the development of the profession, especially its own specialty.
- The students acquire notions about the work management tasks in the aspects of planning and management.
- The students write and interpret engineering technical documents: reports, studies and technical reports, valuations and engineering projects.
- The students design, calculate and graphically represent facilities, infrastructures and industrial buildings.
- The students perform and interpret engineering graphic documentation, diagrams and plans in general.
- The students applies computer science tools for the production of graphic documents and CAD technologies.

Competences

Basic

B02 That students know how to apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.

B03 That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues.

B04 That students can transmit information, ideas, problems and solutions to a specialized and non-specialized public.

B05 That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

General competences

CG1. To conceptualize the drafting, signing and development of projects in the field of engineering in industrial organization, which have as their object, according to the specific technology training, the construction, reform, repair, conservation, demolition, manufacture, installation, assembly or exploitation of : structures, mechanical equipment, energy facilities,

electrical and electronic installations, industrial facilities and processes and manufacturing and automation processes.

CG2. To direct the activities subject of the engineering projects described in the previous section.

CG4. To solve problems with initiative, make decisions, creativity, critical reasoning and to communicate and transmit knowledge, skills and abilities in the field of Industrial Organization Engineering.

CG5. To carry out measurements, calculations, valuations, appraisals, surveys, studies, reports, work plans and other analogous work.

CG6. To implement specifications, regulations and mandatory rules.

CG7. To analyze and assess the social and environmental impact of technical solutions.

CG10. To work in a multilingual and multidisciplinary environment.

CG11. To understand and apply the necessary legislation in the exercise of the profession of Industrial Organization Engineer

Specific competences

CE18. To recognize the organizational structure and functions of a Project Office.

Transversal

CT3. To implement new technologies and technologies of information and communication.

CT4. To apply basic knowledge of entrepreneurship and professional environments.

CT5. To apply essential notions of scientific thinking.

Subject contents

BLOCK 1

Topic 1 - Project planning

- Project Strategy.
- Project Act.
- Project Scope.
- Schedule management.
- Cost management..
- Resources management.
- Procurement management.
- Quality management.
- Risk management.

Topic 2 - Executing, monitoring and controlling the project.

Topic 3 - Close project.

BLOCK 2

Topic 1 – Engineering Projects and Technical office organisation

- Agents and powers
- Relationships and monitoring
- The origin of a Project and general outline
- Management tools and responsables

Topic 2 – Contents of the project

- Descriptions and substantiation
- Calculations and valuations
- Plans and diagrams

- Measurements and budget
- Annexes

Topic 3 – Transaction, management and follow-up of a project

- Official procedures
- Management and follow-up tools
- Case study

Methodology

- Master classes for content exposure.
- Preparation and implementation of activities and practical exercises, individually and in groups, evaluable for the final grade.
- Learning based on the case method, elaborating practical cases where it is necessary to apply theoretical knowledge.
- Autonomous study work, carrying out individual and group activities, searching for information and developing the tasks of the practical cases.
- Presentation of the results of the practical exercises through the delivery of written documentation.
- Face-to-face sessions of exhibition and defense of the work carried out.

All sessions will be face-to-face.

Development plan

Calendar

Week	Monday date	Topics	Lecturer	Observations
1	11/09/2023	Intro/1.1	Albert	Start of classes Tuesday 12 Sept 2023
2	18/09/2023	1.1	Albert	(Thursday 21 Sept 2023 No school from 5.00 pm on)
3	25/09/2023	1.1	Albert	(Thursday 28 Sept 2023 Institutional party UdL)
4	02/10/2023	1.1	Albert	
5	09/10/2023	1.1	Albert	(Thursday 12 Oct 2023 Public holiday)
6	16/10/2023	1.2	Albert	
7	23/10/2023	1.3	Albert	
8	30/10/2023	2.1	Marc	Wednesday 1 Nov 2023 Public holiday
9	06/11/2023			Wednesday 8 Nov 2023 from 5.30 pm to 7.30 pm first partial exam A04
10	13/11/2023	2.1	Marc	
11	20/11/2023	2.1/2.2	Marc	
12	27/11/2023	2.2	Marc	
13	04/12/2023	2.2	Marc	Wednesday 06 Dec 2023 Holiday (Thursday 07 and Friday 08 No school)
14	11/12/2023	2.3	Marc	
15	18/12/2023	2.3	Marc	
	25/12/2023			No school week – Holiday
	01/01/2024			No school week – Holiday
16	08/01/2024			Friday 12 Jan 2024 from 3.00 pm to 5.00 pm second partial exam A04
17	15/01/2024			
18	22/01/2024			Tutorship week
19	29/01/2024			Wednesday 31 Jan 2024 from 5.30 pm to 7.30 pm recovery exam A04

Evaluation

A continuous assessment model will be applied in order to weigh the follow-up activities and the exams, with the following scale:

- 30% first partial exam
- 20% follow-up exercises (block 1)
- 30% second partial exam
- 20% follow-up exercises (block 2)

In order to pass the course it is necessary to have taken both partial exams, which will be retrievable at the end of the semester.

The students that are able to be evaluated by alternative evaluation (according to requirements and procedure indicated in the evaluation regulations), must do an exam at the same timetable of the second partial exam, which will be retrievable at the end of the semester, and must also do a practical work to be presented on a date agreed between teachers and student, and the final grade will be with the following weighting:

- 70% alternative evaluation exam
- 30% practical work

Bibliography

Basic:

Project Management Institute. PMBOK Guide.

Other resources:

Regulations and industrial regulations.