**Universitat de Lleida**

# DEGREE CURRICULUM
# PROJECT METHODOLOGY

Coordination: PARE BUSTO, MARC

Academic year 2022-23

## Subject's general information

| | |
|---|---|
| **Subject name** | PROJECT METHODOLOGY |
| **Code** | 102339 |
| **Semester** | 1st Q(SEMESTER) CONTINUED EVALUATION |

| **Typology** | Degree | Course | Character | Modality |
|---|---|---|---|---|
| | Not informed | 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** | COMPUTER SCIENCE AND INDUSTRIAL ENGINEERING |
| **Teaching load distribution between lectures and independent student work** | Lectures activities: 60 hours<br>Independent study work: 90 hours |
| **Important information on data processing** | Consult this link for more information. |
| **Language** | catalan |
| **Distribution of credits** | 3 theory<br>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 ilmplement 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 – Technical office organisation

- Agents and powers
- Relationships and monitoring
- Management tools and responsibles
- Case study

Topic 2 – Contents of the project

- Descriptions and substantiation
- Calculations and valuations
- Plans and diagrams
- Measurements and budget
- Annexes

Topic 3 – Documentation organization

- Project documentation
- Technical and graphic documentation
- Quality documentation

## 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 | 12/09/2022 | Intro / 1.1 | Albert | |
| 2 | 19/09/2022 | 1.1 | Albert | |
| 3 | 26/09/2022 | 1.1 | Albert | |
| 4 | 03/10/2022 | 1.1 | Albert | |
| 5 | 10/10/2022 | 1.1 | Albert | Wednesday 12/10 holiday |
| 6 | 17/10/2022 | 1.1 / 1.2 | Albert | |

# PROJECT METHODOLOGY 2022-23

| Week | Monday date | Topics | Lecturer | Observations |
|---|---|---|---|---|
| 7 | 24/10/2022 | 1.2 / 1.3 | Albert | |
| 8 | 31/10/2022 | 1.3 / 2.1 | Albert / Marc | |
| 9 | 07/11/2022 | - | Marc | Wednesday 9/11 from 17.30 to 19.30h 1sr partial exam |
| 10 | 14/11/2022 | 2.1 | Marc | |
| 11 | 21/11/2022 | 2.1 / 2.2 | Marc | |
| 12 | 28/11/2022 | 2.2 | Marc | |
| 13 | 05/12/2022 | 2.2 | Marc | Wednesday 7/12 holiday |
| 14 | 12/12/2022 | 2.3 | Marc | |
| 15 | 19/12/2022 | 2.3 | Marc | |
| 16 | 09/01/2023 | - | | Exams week |
| 17 | 16/01/2023 | - | | Wednesday 18/01 from 15.00 to 17.00h 2nd partial exam |
| 18 | 23/01/2023 | - | | Exams week |
| 19 | 30/01/2023 | - | | Wednesday 1/02 from 17.30 to 19.30h recovery exam |

## 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.

The students who do not opt for continuous evaluation must pass the recovery exam, and submit a paper for each block, with the following scales:

- 30% paper for block 1

- 30% paper for block 2

- 40% final exam

## Bibliography

Basic:

Project Management Institute. PMBOK Guide.

Other resources:

Regulations and industrial regulations.