

## Course guide

### 330233 - GOP - Project Management

**Last modified:** 04/05/2023

**Unit in charge:** Manresa School of Engineering  
**Teaching unit:** 750 - EMIT - Department of Mining, Industrial and ICT Engineering.

**Degree:** BACHELOR'S DEGREE IN ICT SYSTEMS ENGINEERING (Syllabus 2010). (Compulsory subject).

**Academic year:** 2023    **ECTS Credits:** 6.0    **Languages:** Catalan

#### LECTURER

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**Coordinating lecturer:** M. ROSA GIRALT MAS

**Others:** PERE PALA SCHONWALDER

#### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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##### Specific:

1. Knowledge and skills to plan, carry out, manage, document and present projects.
2. Legal, economic and social knowledge that qualifies for a better professional practice among which are: notions on knowledge management and its legal protection, notions on the financing of innovation and / or research projects, notions of legal, social and environmental responsibility arising from professional practice and the promotion of innovation.
3. The ability to perform the typical activities of the degree, taking into account the corresponding standards, rules and regulations.

##### Transversal:

4. ENTREPRENEURSHIP AND INNOVATION - Level 3. Using knowledge and strategic skills to set up and manage projects. Applying systemic solutions to complex problems. Devising and managing innovation in organizations.
5. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 3. Taking social, economic and environmental factors into account in the application of solutions. Undertaking projects that tie in with human development and sustainability.
6. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
7. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
9. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.
10. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
- 05 TEQ N2. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
- 08 GEN. GENDER PERSPECTIVE: An awareness and understanding of sexual and gender inequalities in society in relation to the field of the degree, and the incorporation of different needs and preferences due to sex and gender when designing solutions and solving problems.

## TEACHING METHODOLOGY

The subject involves face-to-face activities that consist of 2 hours a week in the classroom (large group) and 2 hours a week in the laboratory (small group).

Students learn in various ways. The content of the subject is presented in the participatory lectures in the classroom, in which interaction between the students and the professor is encouraged. Individual and group activities designed to contribute to an understanding of the subject matter are proposed.

In small-group classes, projects are worked on as a group. The professor is available to answer questions and help the teams plan the activities that must be done individually outside the classroom.

By working in a team and individually, searching for information in any language, considering the economic and environmental aspects of a project and writing documents and presenting them in public, students work on all the generic competencies. Depending on the project worked on, a maximum of three of the generic competencies are assessed. These marks contribute to the final mark for the subject.

## LEARNING OBJECTIVES OF THE SUBJECT

On completion of the subject, students must be able to:

- Plan, carry out, document, present and manage moderately complex projects in the area of ICTs.
- Communicate more effectively orally and in writing.
- Understand and write scientific and technical documents that are appropriate to their level.
- Use information resources effectively.
- Understand moderately complex manuals and specifications in the area of ICTs, in their usual language and in English.
- Plan, organise and learn more effectively, both on a personal level and as part of a team.
- Innovate more effectively.
- Understand the influence of business needs and the financial and sustainability aspects of projects.

## STUDY LOAD

Type	Hours	Percentage
Self study	90,0	60.00
Hours large group	30,0	20.00
Hours small group	30,0	20.00

**Total learning time:** 150 h

## CONTENTS

### Títol de l'contingut 1: THE PROJECT

#### Description:

1. Definition
2. Project typology
3. Financial factors of projects.
4. Risk in a project
5. Phases of a project

#### Related activities:

A1, A2, A5.

#### Full-or-part-time: 12h

Theory classes: 4h

Self study : 8h

## Content title 2: PROJECT PLANNING

### Description:

1. Order, objectives and scope
2. Activities and schedule
3. Project resources
4. Budget
5. Offer or proposal
6. Planning methods
7. Planning tools

### Related activities:

A1, A2, A3, A4, A5.

### Full-or-part-time: 46h

Theory classes: 8h

Laboratory classes: 12h

Self study : 26h

## Title of content 3: CARRYING OUT AND MONITORING OF THE PROJECT

### Description:

1. Work team
2. Search for information.
3. Meetings and team work
4. Project monitoring
5. Preparation documentation
6. What might fail in a project?

### Related activities:

A1, A2, A3, A4, A5.

### Full-or-part-time: 46h

Theory classes: 8h

Laboratory classes: 12h

Self study : 26h

## Content title 4: PROJECT DOCUMENTATION

### Description:

1. Technical documentation
2. Administrative documentation
3. Supplementary documentation

### Related activities:

A1, A2, A3, A4, A5.

### Full-or-part-time: 28h

Theory classes: 4h

Laboratory classes: 6h

Self study : 18h



#### Content Title 5: PROJECT MANAGEMENT METHODOLOGIES

**Description:**

1. Definitions of project management.
2. A few project management methodologies.

**Related activities:**

A1, A2, A5.

**Full-or-part-time:** 6h

Theory classes: 2h

Self study : 4h

#### Title of content 6: EXAMPLES OF REAL PROJECTS

**Description:**

1. Examples of projects completed at companies.

**Related activities:**

A1, A2, A5.

**Full-or-part-time:** 12h

Theory classes: 4h

Self study : 8h

## ACTIVITIES

#### TITLE OF ACTIVITY 1: LECTURES WITH EXERCISES

**Description:**

Face-to-face sessions focused on understanding the subject content, completing exercises and assigning new exercises that will lead to new content.

**Specific objectives:**

At the end of the Project Management and Orientation course, the student will:

- Be able to plan, carry out, document, present and manage projects of moderate complexity in the field of ICT.
- Know how to understand the influence of business needs and economic and sustainability aspects in projects.

**Material:**

Recommended bibliography

Published teaching material

**Full-or-part-time:** 26h

Theory classes: 26h

## TITLE OF ACTIVITY 2: INDEPENDENT STUDY

### Description:

Independent study consists of studying to understand and solidify knowledge, vocabulary and techniques either individually or in a group.

### Specific objectives:

At the end of the Project Management and Orientation course, the student will:

- Be able to plan, carry out, document, present and manage projects of moderate complexity in the field of ICT.
- Know how to understand the influence of business needs and economic and sustainability aspects in projects.

### Material:

Recommended bibliography  
Published teaching material

### Full-or-part-time: 20h

Self study: 20h

## TITLE OF ACTIVITY 3: LABORATORY SESSIONS

### Description:

The sessions will be conducted at the university laboratories or IT rooms, based on the project to be completed. The project to be carried out during the class is based on role play. The teacher will act as the client and commission a project from the students, who will be divided into working groups of about 10. During these sessions, students will receive the commission and do the necessary group work to plan, carry out, document and present a project, following the methodology described in the lectures.

### Specific objectives:

At the end of the Project Management and Orientation course, the student will:

- Be able to plan, carry out, document, present and manage projects of moderate complexity in the field of ICT.
- Increase your ability to communicate orally and in writing.
- Be able to understand and write scientific and technical documentation appropriate to your level of knowledge.
- Use information resources in a solvent manner.
- Be able to understand moderately complex manuals and specifications in the field of ICT, in your usual language and in English.
- Increase your ability to plan, organize and learn both personally and as a team.
- Improve your spirit of innovation.
- Know how to understand the influence of business needs and economic and sustainability aspects in projects.

### Material:

Information about the project to be carried out  
Laboratory equipment and / or PC  
Recommended bibliography  
Published teaching material

### Delivery:

At the end of each session, the planning of the individual tasks to be carried out by each student of the team regarding the overall project of the course will be delivered. In the sessions that have to make presentations, the documentation related to these will be delivered.

### Full-or-part-time: 30h

Laboratory classes: 30h

#### TITLE OF ACTIVITY 4: COMPLETION OF THE PROJECT

**Description:**

Students will have to do all the work of planning, carrying out, documenting, monitoring and presenting the project outside class hours. This can be done individually based on the team work completed during laboratory hours.

**Specific objectives:**

At the end of the Project Management and Orientation course, the student:

- You will be able to plan, carry out, document, present and manage projects of moderate complexity in the field of ICT.
- Increase your ability to communicate orally and in writing.
- You will be able to understand and write scientific and technical documentation appropriate to your level of knowledge.
- Will use information resources in a solvent manner.
- You will be able to understand moderately complex manuals and specifications in the field of ICT, in your usual language and in English.
- You will increase your ability to plan, organize and learn both personally and as a team.
- It will improve your spirit of innovation.
- Know how to understand the influence of business needs and economic and sustainability aspects in projects.

**Material:**

Information about the project to be carried out

Recommended bibliography

Published teaching material

**Delivery:**

At the end of the course, students must submit all the documentation that they have completed related to the project carried out during the course. They must also submit a brief report with the problems encountered while carrying out the project (lack of information, interpersonal problems, lack of time, poor organization ...).

**Full-or-part-time:** 60h

Self study: 60h

#### TITLE OF ACTIVITY 5: EXAM

**Description:**

Written exam in which the knowledge acquired up to the time of examination is evaluated. There will be a midterm that students must take individually. At the end of the class, there will be a final exam on the overall knowledge acquired.

**Specific objectives:**

At the end of the student's Project Management and Orientation course:

- You must have synthesized and consolidated the concepts worked so far.

**Material:**

Test statements

The compilation of the entire course

**Delivery:**

Testing exercises

**Full-or-part-time:** 14h

Theory classes: 4h

Self study: 10h

## GRADING SYSTEM

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The final mark for the class will be calculated using the following equation:

- 70% Lab activities (A3) and completion of the class project (A4)
- 30% Exam (A5)

Assessment will be continuous.

Mark 1. The mark for a part or the entirety of the final exam replaces the marks obtained in other assessments for the subject if it is higher and the aspects assessed coincide.

Mark 2. When the marks for the assessment of individual activities are substantially lower than those for the group activities, students may be asked to carry out activities similar to those done as a group individually. Marks for the most recent activities replace the marks for the original activities.

Mark 3: The course project is a competitive piece of work, so there will be winners and losers. Depending on the quality of the projects, teams may add to their marks an additional point of between 0 and 1 based on the position obtained and the difference in quality with respect to the winning team.

Mark 4: Assessment criteria, which also consider the generic competencies students have worked on, are provided before the assessment of the course project.

## EXAMINATION RULES.

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All the activities are compulsory.

If students do not carry out one of the activities for the subject they will be given a mark of 0.

Laboratory activities must be done to pass the subject.

All the documents related to the project must be handed in. Further details will be given on which activities must be handed in and the assessment criteria.

Students are obliged to comply with the deadlines, formats and other conditions for submission that are established.

## BIBLIOGRAPHY

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### Basic:

- Domingo Ajenjo, Alberto. Dirección y gestión de proyectos: un enfoque práctico. 2nd ed. Madrid: Ra-ma, 2005. ISBN 8478976620.

### Complementary:

- Baker, Sunny; Baker, Kim. The complete idiot's guide to project management. 2nd ed. Indiannapolis: Alpha Books, 2000. ISBN 0028639200.
- Horine, Greg. Manual imprescindible de gestión de proyectos. Madrid: Anaya Multimedia, 2005. ISBN 844151917X.
- Bruce, Andy; Langdom, Ken. Project management. New York: Dorling Kindersley, 2000. ISBN 075132793X.

## RESOURCES

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### Other resources:

- Notes and transparencies of Management and Orientation of projects.
- Information regarding the project.