

**COURSE DATA****Data Subject**

<b>Code</b>	34817
<b>Name</b>	Project Management
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	6.0
<b>Academic year</b>	2018 - 2019

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. Period</b>
1402 - Degree in Telecommunications Electronic Engineering	School of Engineering	3 Second term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1402 - Degree in Telecommunications Electronic Engineering	18 - Project management	Obligatory

**Coordination**

<b>Name</b>	<b>Department</b>
DEDE GARCIA-SANTAMARIA, ENRIQUE	242 - Electronic Engineering

**SUMMARY**

The Project Management course is part of the subject with the same name, whose overall objective is that students gain the ability to properly apply all previously acquired knowledge to the design, development and evaluation of projects and reports, applying the methodology and the basic principles of economics, management, quality and business organization as well as legislation, regulation and standardization in the field of telecommunications engineering. It is a compulsory subject that is taught quarterly basis in the third year of the Degree in Electronic Engineering in Telecommunications in the second quarter. The curriculum consists of a total of 6 ECTS. The course is aimed at developing practical skills that engineers need to use in their professional development as a project manager, or as part of the project team. To do this you must purchase a set of skills related to management of both material and human resources, and task decomposition. The practical exercises are used to make the knowledge gained during the lectures, with all the implications of this emphasis on common telecommunications infrastructure. In these exercises, students will develop their creativity and skills related to management and communication. In addition, these exercises help students improve their speaking skills and synthesis of work by having to defend in front of their peers.



## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### Other requirements

The course, given its general nature, does not need a specific background, although it is recommended to have completed the courses "Engineering, University and Business and Society," in order to have an initial perception of the world of the Company. On the contrary, it does provide very direct connections in areas in which the work is embodied in a project.

## OUTCOMES

### 1402 - Degree in Telecommunications Electronic Engineering

- G8 - Knowledge and application of basic elements of economics and human resource management, project organization and planning, and legislation, regulations and norms in telecommunications.
- G9 - Ability to work in a multidisciplinary environment and in a multilingual group and to communicate, in writing and orally, knowledge, procedures, results and ideas related to telecommunications and electronics.
- G6 - Ability in the handling of specifications, regulations and norms of compulsory compliance.
- R2 - Ability to use communication and computer applications (offmatics, databases, advanced calculation, project management, visualization, etc.) to support the development and exploitation of telecommunications and electronics networks, services and applications.
- G1 - Ability to write, develop and sign projects in the field of Telecommunication Engineering aimed - according to the knowledge acquired in section 5 of CIN/352/2009 regulation - at the conception and the development or the exploitation of networks, services and applications of telecommunications and electronics.

## LEARNING OUTCOMES

1. Understand the basic principles of Management and Project Management in the field of telecommunications engineering, electronic industry, and be able to use them to create, analyse and select plausible alternatives capable of responding to the problems of their area of work (G8)
2. Determine the appropriate tools for achieving the main goals of quality, cost and time sought in project management (G8)
3. Know the different types of telecommunications projects (G8)
4. Knowing the technical feasibility analysis (G8)
5. Being able to document a project both from the technical side and management (G8,G1)
6. Know the organizational structure of a company (G8)
7. Learn the techniques of planning and project control (G8)



8. Know the procedure for certification of electronic products and procedures for obtaining the CE mark (G8,G6)
9. Meet the professional organization and basic track procedures. Know de Law (G8)

## DESCRIPTION OF CONTENTS

### 1. THE CONCEPT, CONTEXT, CHARACTERIZATION AND STAGES OF A TELECOMMUNICATION PROJECT

- ITEM 01: The concept of an industrial project
- ITEM 02: The context of a Telecommunication project
- ITEM 03: Characterization of external projects
- ITEM 04: Characterization of internal projects
- ITEM 05: The Quality Plan for the management of an industrial projectThe

### 2. THE DRAFT

- ITEM 06: The management of an industrial project
- ITEM 07: The specifications of an industrial project
- ITEM 08: The basic techniques of project planning
- ITEM 09: Advanced techniques of project planning
- ITEM 10: Feasibility studies and project risk
- ITEM 11: The economic evaluation of a project
- ITEM 12: The decision theoryThe

### 3. THE PROJECT

- ITEM 13: The implementation of industrial projects
- ITEM 14: Validation of industrial projects
- ITEM 15: The control projects
- ITEM 16: Project closure

### 4. THE PROFESSIONAL ACTIVITY

- ITEM 17: The salaried employment
- ITEM 18: The self-employment



## 5. LABORATORY

The aim of the laboratory classes is learning by students of software for planning, management and control of projects. This section is organized by the four following practices:

1. MS PROJECT
2. Planning and projects with unlimited resources.
3. Project planning with limited resources. Diagrams of costs and burdens. Computer control of projects.
4. Practical Project: Computer Telephony Base Station
5. Economic and financial viability of a project

## WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Laboratory practices	20,00	100
Classroom practices	10,00	100
Development of group work	25,00	0
Preparation of evaluation activities	25,00	0
Preparing lectures	15,00	0
Preparation of practical classes and problem	25,00	0
<b>TOTAL</b>	<b>150,00</b>	

## TEACHING METHODOLOGY

The development of the course is structured around the theory classes, practical classes, seminars and workshop classes and labs.

The ***theoretical activities*** (T) will be exposed by the classes of theory. In those classes, we will use the lecture model. The teacher will present on presentation and / or explain the contents of each issue impacting on key aspects for understanding.

***The seminar-workshop*** (S) will be developed according to the following methodology: Each student will choose a topic that may constitute future project to grade and develop the corresponding draft project, prepare the corresponding presentation (Power-Point), and I will defend in public presentation. Following the presentation will proceed to a round of questions and discussion by the teacher and other students.

For the ***laboratory sessions*** (L) will be scheduled activities for introducing the practice to perform the development activities of experimentation and analysis activities and treatment results. Students will have scripts for practice and testing will be conducted strictly by them under the supervision of the teacher.



## EVALUATION

The knowledge gained by the student may be assessed in two ways: On the one hand by continuous assessment or by a final exam (single evaluation system).

### *Continuous Assessment System*

This system will be assessed to those students who regularly participate in training activities, evaluating theoretical activities, seminars and workshop laboratory activities.

The knowledge acquired in the lectures will be evaluated by a single objective test, a final exam consisting of theory, which consist of the theory and practices of the above classes both in Theory, Practice and Seminar-Workshop over progress. ***The final exam of theory contribute 50% of the final grade.***

The evaluation of the activities of the seminar-workshop will be evaluated by the degree of preparation and public presentation of the subject that students have presented. The note of the seminar-workshop will contribute 25% of the final grade.

The skills acquired ***in the labs*** will be assessed through an individual test end. ***The note of the labs will contribute 25% of the final grade.***

### **Summary of the final rating of the Subject Activity Method**

<b><i>Activity or Concept to be Evaluated</i></b>	<b><i>Qualification Method</i></b>	<b><i>Rating%</i></b>
Theoretical activities (T)	Theory Final Exam	50 %
Workshop (S)	Presentation	25%
Lab (L)	Individual Test	25%
<b>Total</b>		<b>100%</b>

To average in any of the weights will have to achieve a ***minimum grade of 4.***

### *Alternative Assessment System*





For those students who for whatever reason can not attend classes regularly or have not passed the continuous assessment in all its various assessments, the evaluation of acquired knowledge will be done through a final review of theory (corresponding to the Theory final exam students who have continued the system of continuous assessment and understand the contents of all activities conducted face (theoretical activities, practical activities and seminar-workshop activities and by examining laboratory.

***The exam grade of theory contribute 75% of the final while the exam while the exam Laboratory contribute 25% of the final grade.***

#### **Summary of the final composition of the Subject Activity**

<b><i>Activity o Concept to be Evaluated</i></b>	<b><i>Qualification Method</i></b>	<b><i>Rating%</i></b>
Theoretical Activities (T)	Final Theory Exam	75 %
Workshop (S)		
Lab (L)	Lab Exam	25 %
<b>Total</b>		<b>100%</b>

To average in any of the weights will have to achieve a ***minimum grade of 4.***

## **REFERENCES**

### **Basic**

- Referencia b1: Pereña, J. "Dirección y Gestión de Proyectos". Ed. Díaz de Santos (1991).

Referencia b2: Gómez, J. F; Coronel, A.J; Martinez de Irujo, L; Lorente, A. "Gestión de proyectos". FC Editorial. Madrid, 2000. ISBN 8428317747.

Referencia b3: Lock, D. "Gestión de proyectos". Ed. Paraninfo. Madrid, 1994. ISBN 8428317747.

Referencia b4: Ruiz M., Mandado, E. La innovación Tecnológica y su Gestión Ed. Marcombo ( 1989) ISBN 84-267-0733-5



### **Additional**

- Referencia c1: SERCOBE Gestión de la I+D+i- Normas UNE ( 2008) ISBN 978-84-8143-567-2.
- Referencia c2: Amándola, L.J. Gestión de Proyectos de Manufacturera Editoril UPV, ISBN 84-9705-311-7
  
- Referencia c3: Reglamento Electrotécnico de Baja Tensión. Ed. Paraninfo ( 1997) ISBN 84-283-2109-4