

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

Code	44291
Name	Projects
Cycle	Master's degree
ECTS Credits	3.0
Academic year	2020 - 2021

Study (s)

Degree	Center	Acad. Period
2199 - M.D. in Electronic Engineering	School of Engineering	1 Second term

Subject-matter

Degree	Subject-matter	Character
2199 - M.D. in Electronic Engineering	5 - Projects	Obligatory

Coordination

Name	Department
GIRBES JUAN, VICENT	242 - Electronic Engineering
SUAREZ ALVAREZ, ISAAC	242 - Electronic Engineering

SUMMARY

The subject Project has the overall objective that students gain the ability to properly apply all the knowledge necessary for the design, development and evaluation of projects and reports, applying the appropriate methodology and the basic principles of economics, management, quality and business organization as well as legislation, regulation and standardization in the field of studies in Electrical Engineering Master .. It is a compulsory quarterly basis that is taught in the first year of the Master in Electronic Engineering in the first quarter. The curriculum consists of a total of 3 ECTS credits.

The basic objective of the subject is to introduce students to the concepts and techniques commonly employed in the management and direction of transportation projects, including documentary techniques used in the development of projects, as well as the presentation of the legislation applicable in industrial projects related to field of Industrial Electronics.



Project Management is the way of directing and coordinating human and material resources throughout the life cycle of a project to achieve the stated objectives d scope, cost and delivery and satisfaction of stakeholders in the project. In short, it is a set of methodologies and tools that try the effective management of a set of activities to achieve customer satisfaction.

The Course aims to show students these methodologies and tools for their professional future solvency can deal with an industrial project.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

Given that this is a subject of general nature, are not necessary

OUTCOMES

2199 - M.D. in Electronic Engineering

- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.
- Students should demonstrate self-directed learning skills for continued academic growth.
- Take into account the economic and social context in engineering solutions, be aware of diversity and multiculturalism and ensure sustainability and respect for human rights and equality between men and women.
- Diseñar un sistema, componente o proceso que cumpla unas especificaciones desde diferentes puntos de vista: electrónico, económico, social, ético y medioambiental.
- Demostrar una comprensión sistemática de un campo de estudio y el dominio de las habilidades.
- Realizar un análisis crítico, evaluación y síntesis de ideas nuevas y complejas.
- Ser capaz de fomentar, en contextos académicos y profesionales, el avance tecnológico, social o cultural dentro de una sociedad basada en el conocimiento.
- Capacidad para la dirección general, dirección técnica y dirección de proyectos de investigación, desarrollo e innovación, en empresas y centros tecnológicos relacionados con la Ingeniería Electrónica.



- Students should possess and understand foundational knowledge that enables original thinking and research in the field.

LEARNING OUTCOMES

Learning outcomes of the course projects

- 1 Understanding the basic principles of Management and Project Management in the field of Industrial Engineering, Industrial Electronics branch, and be able to use them to create, analyze and select plausible alternatives capable of responding to the problems in their field of work.
- 2 Know the different types of industrial projects
- 3 Know the feasibility analysis techniques in industrial projects
- 4 Learn the techniques of decision making
- 5 Be able to document a project both technical and management side
- 6 Knowing the organizational structure of a company and the functions of an office project
- 7 To learn the techniques of planning and controlling projects
- 8 Know the law applicable to industrial projects branch of Industrial Electronics
- 9 Perform economic evaluation of processes and projects.
- 10 Write and develop projects in the field of Industrial Engineering, Industrial Electronics branch
- 11 Meet the professional organization and basic paperwork. Know the current legislation and, in particular, regarding prevention and equality.
- 12 Being able to work in teams of their field of work or multidisciplinary
- 13 Possess ability to manage information and the use of Information Technology and Communications
- 14 Possess organizational skills and planning, particularly in the field of business. Have applied knowledge of business organization
- 15 Possess critical thinking skills, creativity and decision-making
- 16 Being able to gather and interpret information and make judgments on issues of social, scientific, technological or ethical
- 17 Possessing learning skills to continue and update their training throughout working life with a high degree of autonomy



DESCRIPTION OF CONTENTS

1. DESIGN PROJECT

DESIGN PROJECT

The purpose of the subject is to introduce students to the industrial project concept and the different typologies of industrial projects. The theme consists of the following lessons:

1. The organizational structure of a company.
2. Concept of industrial project.
3. Types of industrial projects.

2. PROJECT METHODOLOGY

PROJECT METHODOLOGY

The subject aims to provide an overview of the basic steps in the methodology of implementation of a project and its feasibility.

The topic is organized into the following lessons:

4. Stages of an industrial project.
5. Preliminary studies and feasibility analysis of projects.
6. Draft and the draft.
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3. ORGANIZATION AND DOCUMENTATION PROJECT

ORGANIZATION AND DOCUMENTATION PROJECT

The subject analyzes the type used to effectively manage and control a project methodology.

The topic is organized into the following lessons:

7. Project Director.
8. Preparation and organization of the project.

4. A PROJECT MANAGEMENT

A PROJECT MANAGEMENT.

The subject presents the student with the different instruments routinely used for management and control of projects.

This topic is organized into the following lessons.

9. WBS structure
10. Techniques planning.
11. Projects through planning graph above.
12. Planned projects using Gantt charts.
13. Pert Project Planning.
14. Projects compression techniques.
15. Planned projects with limited resources.
16. Control Project.



5. LEGISLATION

LEGISLATION

The subject aims to give students an overview of the legislation and regulations applicable to industrial projects branch of Electronic Engineering,

The topic is organized into the following lessons:

- 17. Directives and regulations.
- 18. The rules of Electromagnetic Compatibility (*)
- 19. The Electrical Safety regulations (*).
- 20. The CE marking of products.

6. SEMINAR-WORKSHOP

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The ST will consist of presentations by professionals from the business world give their particular vision of the activities related to project management students. They must draw up a written report explaining the contents of the ST.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	15,00	100
Laboratory practices	15,00	100
Development of group work	10,00	0
Development of individual work	10,00	0
Readings supplementary material	5,00	0
Preparation of evaluation activities	15,00	0
Preparing lectures	5,00	0
TOTAL	75,00	

TEACHING METHODOLOGY

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

Theoretical activities will be exposed by the lectures (T). In those classes, the lecture model is used. The teacher will present on presentation and / or explain the contents of each issue to highlight those key aspects for understanding.



The Seminar-Workshop sessions will include presentations from professionals from the world of companies.

EVALUATION

The knowledge acquired by the student shall be assessed in the following two ways: On the one hand through continuous assessment or through a final exam for students who either have failed to comply with the requirements for continuous assessment (attendance exceeding 75% in each of the activities) have passed or not (single evaluation system).

Continuous Assessment System

Through this system, students who regularly participate in training activities, evaluating theoretical activities and the activities of the seminar-workshop will be evaluated.

The knowledge acquired in the theory classes will be assessed by a single objective test, consisting of a final theory exam, which will consist of theoretical and practical grounds of both kinds of theory questions. The final exam of theory contribute to 50% of the final grade.

The evaluation of the activities of the seminar-workshop will be evaluated through the report submitted by the relevant student every ST organized. The note of the seminar-workshop will contribute 50% of the final grade.

Summary of the composition of the final grade for the Course

Activity or Method Concept	evaluate Rated	% Final Grade
Theoretical Activities (T)	Theory Final Exam	50%
Seminar-Workshop (S)	Memory	50%
Total		100%

Averaging to any of the weights will have to meet a minimum grade of 4.

Alternate Assessment System

For those students who for any reason can not attend regular classes or have not passed the continuous assessment, in all its different assessments, evaluation of acquired knowledge is done through a final theory exam (which coincide with the Theory final exam students who have continued the system of continuous assessment which will include the contents of all theoretical activities) and performing a memory whose contents will be indicated to the student by the teacher of the subject. The Theory exam grade will contribute 50% of the final mark while the memory corresponding to the note will contribute 50% of the final grade.



Summary of the composition of the final grade for the Course

Activity or Method Concept	evaluate Rated	% Final Grade
Theoretical Activities (T)	Theory Final Exam	50%
Seminar-Workshop Activities (S)	Memory	50%
Total		100%

Averaging to any of the weights will have to meet a minimum grade of 4.

REFERENCES

Basic

- 1. Pereña, J. "Dirección y Gestión de Proyectos". Ed. Díaz de Santos (1991).
- Gómez, J. F; Coronel, A.J; Martinez de Irujo, L; Lorente, A. "Gestión de proyectos". FC Editorial. Madrid, 2000. ISBN 8428317747
- Lock, D. "Gestión de proyectos". Ed. Paraninfo. Madrid, 1994. ISBN 8428317747
- 2. Domingo Alejo, A. Dirección y Gestión de Proyectos, un enfoque práctico. Ed. Rama 2005
- 3. Reglamento Electrotécnico de Baja Tensión. Ed. Paraninfo (1997) ISBN 84-283-2109-4
- 4. SERCOBE Gestión de la I+D+i- Normas UNE (2008) ISBN 978-84-8143-567-2

Additional

- Amándola, L.J. Gestión de Proyectos de Manufacturera Editoril UPV, ISBN 84-9705-311-7
- 5. Ruiz M., Mandado, E. La innovación Tecnológica y su Gestión Ed. Marcombo (1989) ISBN 84-267-0733-5



ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

English version is not available

1. Contenidos

Se mantienen todos los contenidos inicialmente programados en la guía docente

2. *Volumen de trabajo y planificación temporal de la docencia*

Se mantienen los horarios de clase utilizando las aplicaciones de Microsoft Teams y la aplicación Blackboard del aula virtual.

3. Metodología docente

Las clases se realizarán utilizando la herramienta Microsoft Teams o la aplicación Blackboard.

Se realizará una clase magistral en la que el profesor interaccionará con los alumnos en la realización de ejercicios o actividades de aula.

Sistema de tutorías. Se mantiene el programa de tutorías virtuales y en el horario de tutorías presenciales disponibilidad del profesor en el canal de la asignatura de Microsoft Teams

4. Evaluación

Los alumnos que hayan realizado la evaluación continua podrán optar a sustituir el examen final por la entrega de una memoria del trabajo realizado. La memoria será conjunta para todo el grupo que haya realizado el trabajo; y debería estar correctamente documentada, con todos los apartados del proyecto, incluyendo la documentación la realización del proyecto. Asimismo, cada grupo presentará a través de Microsoft Teams o Blackboard su trabajo al resto de la clase, habiendo al final de la exposición un turno de preguntas.

Los alumnos que no hagan la evaluación continua, o que la hayan suspendido, deberán realizar un examen final el día establecido en el calendario académico. Dicho examen consistirá por cuestiones que deberán resolver los alumnos. La duración del examen será de 120 minutos y el enunciado deberá subirse al aula virtual con un margen de 2 minutos respecto a la hora de finalización del examen. Será la hora que figure en la actividad Tarea del aula virtual como hora de entrega la que se tenga en cuenta para entender que se ha entregado en plazo. Los estudiantes deberán estar conectados mediante videoconferencia BBC con la cámara activada y el micrófono silenciado.



Si una persona no dispone de los medios para establecer esta conexión y acceder al aula virtual, deberá contactar con el profesorado por correo electrónico en el momento que sea de aplicación este anexo a la guía docente.

