

## Course guide

### 300480 - PAE-OAT - Applied Engineering Projects

**Last modified:** 12/06/2023

<b>Unit in charge:</b>	Castelldefels School of Telecommunications and Aerospace Engineering
<b>Teaching unit:</b>	739 - TSC - Department of Signal Theory and Communications. 744 - ENTEL - Department of Network Engineering. 732 - OE - Department of Management. 710 - EEL - Department of Electronic Engineering.
<b>Degree:</b>	BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2009). (Optional subject). BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject). BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING (Syllabus 2015). (Optional subject).

**Academic year:** 2023    **ECTS Credits:** 6.0    **Languages:** Catalan, Spanish, English

#### LECTURER

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**Coordinating lecturer:** Definit a la infoweb de l'assignatura

**Others:** Definit a la infoweb de l'assignatura

#### PRIOR SKILLS

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None

#### REQUIREMENTS

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None

#### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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##### Transversal:

02 SCS. SUSTAINABILITY AND SOCIAL COMMITMENT. Being aware of and understanding the complexity of social and economic phenomena that characterize the welfare society. Having the ability to relate welfare to globalization and sustainability. Being able to make a balanced use of techniques, technology, the economy and sustainability.

04 COE. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.

05 TEQ. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.

06 URI. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.

07 AAT. SELF-DIRECTED LEARNING. Detecting gaps in one's knowledge and overcoming them through critical self-appraisal. Choosing the best path for broadening one's knowledge.

01 EIN N1. ENTREPRENEURSHIP AND INNOVATION - Level 1. Showing enterprise, acquiring basic knowledge about organizations and becoming familiar with the tools and techniques for generating ideas and managing organizations that make it possible to solve known problems and create opportunities.

#### TEACHING METHODOLOGY

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## LEARNING OBJECTIVES OF THE SUBJECT

The objective of the course is to work on a multidisciplinary project based on a challenge defined by a company. Students will work on the project in groups of 4, based on the challenge proposed by the company and supervised by it, with the guidance of EETAC professors. Students must propose and analyze possible solutions to the challenge posed. The nature of the challenges will vary depending on the companies that propose them, but in general they will have a high content of innovation and creativity. Businesses often pose real high-level problems, but not in the form of a conventional academic problem.

## STUDY LOAD

Type	Hours	Percentage
Guided activities	66,0	44.00
Self study	84,0	56.00

**Total learning time:** 150 h

## CONTENTS

### Applied project

#### Description:

Students will work on the project in groups of 4, based on the challenge proposed by the company and supervised by it, with the guidance of EETAC professors. Students must propose and analyze possible solutions to the challenge posed. The nature of the challenges will vary depending on the companies that propose them, but in general they will have a high content of innovation and creativity. Businesses often pose real high-level problems, but not in the form of a conventional academic problem.

**Full-or-part-time:** 150h

Guided activities: 15h

Self study : 135h

## GRADING SYSTEM

## BIBLIOGRAPHY

### Basic:

- Nieto-Rodriguez, Antonio. Harvard Business Review project management handbook : how to launch, lead, and sponsor successful projects [on line]. © 2021 [Consultation: 14/11/2023]. Available on: <https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?pq-origsite=primo&docID=6711987>. ISBN 9781647821272.
- Dalmau, Agnès González. Gestión de proyectos [on line]. Barcelona ; Boston, Massachusetts: Reverté Management : Harvard Business Review Press, 2019 [Consultation: 14/11/2023]. Available on: [https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB\\_BooksVis?cod\\_primaria=1000187&codigo\\_libro=6719](https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=6719). ISBN 8429194002.
- Verzuh, Eric. The Fast forward MBA in project management [on line]. Fifth edition. Hoboken, New Jersey: Wiley, [2016] [Consultation: 14/11/2023]. Available on: <https://onlinelibrary-wiley-com.recursos.biblioteca.upc.edu/doi/book/10.1002/9781119176350>. ISBN 9781119086581.
- Huckin, Thomas N; Olsen, Leslie A. Technical writing and professional communication : for nonnative speakers of English. 2nd ed. New York: McGraw-Hill, 1991. ISBN 0071126422.
- Donovan, Jeremey. Método TED para hablar en público : los secretos de las conferencias que triunfan en todo el mundo. Nueva ed. rev. y ampliada. [Barcelona]: Ariel, cop. 2016. ISBN 9788434423565.