

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

Code	43862
Name	Telecommunication project management I
Cycle	Master's degree
ECTS Credits	5.0
Academic year	2022 - 2023

Study (s)

Degree	Center	Acad. Period
2174 - M.U. en Ingeniería de Telecomunicación 13-V.2	School of Engineering	2 First term

Subject-matter

Degree	Subject-matter	Character
2174 - M.U. en Ingeniería de Telecomunicación 13-V.2	16 - Telecommunication project management I	Obligatory

Coordination

Name	Department
SAMPER ZAPATER, JOSE JAVIER	240 - Computer Science

SUMMARY

The course Gestión Tecnológica de Proyectos de Telecomunicación I (GTPT I), is a subject for the first semester of the second year of the Master in Telecommunication Engineering. The course consists of 5 ECTS, and is complemented by the course Gestión Tecnológica de Proyectos de Telecomunicación II (GTPT II), also with 5 ECTS.

In this course, students will acquire the required knowledge to design and develop engineering projects, as well as their implementation and monitoring. In this context, the life cycle of a project will be defined and the student will be introduced in the different aspects to be taken into account in the planning, execution and management of a telecommunication engineering project. The most common standards used in project management will be reviewed and the role played by the most important entities in the field of telecommunications, such as the National Commission of Markets and Competition (CNMC) or professional associations, will be described.



At the beginning, the course will focus on project management fundamentals in engineering. More specific aspects on the legal and technical telecommunications framework will be covered along the course, providing a link to the contents of GTPT II (second part of this course).

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

Basics of telecommunication engineering and budgeting.
Management Essentials.

OUTCOMES

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- To have critical thinking capabilities to investigate independently and self-critically, and to search and utilize information for documenting ideas.
- To have the ability of standing up for fair criteria with rigor and arguments, reporting them publicly in a clear way and in a multilingual environment.
- To have the ability to participate in diffusion forums, journals, conferences, etc. and to work cooperatively and effectively in transnational teams.
- To have the capability to identify and solve the critical points to conduct an effective technology transfer, transforming theoretical results into products and services that are useful for the society.
- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.
- Be able to access to information tools in other areas of knowledge and use them properly.
- To be able to assess the need to complete the scientific, historical, language, informatics, literature, ethics, social and human background in general, attending conferences, courses or doing complementary activities, self-assessing the contribution of these activities towards a comprehensive development.
- Ability to create, lead, coordinate and manage projects technically and economically about: systems, networks, infrastructures and telecommunication services, including the supervision and coordination of partial projects of an aged work; common telecommunication infrastructure in transport and environmental engineering, with their corresponding energy supply facilities and the assessment of electromagnetic compatibility and emissions.



LEARNING OUTCOMES

After completing this course, students will have acquired the learning outcomes enabling the development of the general and specific skills described in this document. In this context, the students will be able to design, lead and coordinate the technical and financial management of engineering projects, applying technical knowledge learnt along their studies and critically evaluating the results obtained during the execution of a telecommunication project.

DESCRIPTION OF CONTENTS

1. Introduction

The project concept. ICT Projects. Methodologies for project management. Standards and certification systems. Conclusions.

2. Project Management

Organisational aspects. Organisms and project management standards. Size of the project. Project life cycle. Phases and activities in project management. Tools for project management. Conclusions.

3. Project scope

People involved. Setting objectives and scope. Specification of requirements. Viability of the project. Establishment of results. Project definition document. Conclusions.

4. Planning and time management

Planning tasks. Sequencing tasks. Estimating task duration. Project schedule. Resource planning. Effort estimation. Resource allocation. Conclusions.

5. Financial management of the project

Investment. Evaluation methods and economic justification of projects. NPV and IRR. Recovery Period. Expected value. Budget tracking. Deviations. Work management. Amortization. Performance Reports. Conclusions.

6. Human resources management

Project team. Matrix Organization department / project. Selection, motivation, communication and leadership. Performance evaluation. Career. Assigning roles and responsibilities. Types and economic implications of outsourcing. Conclusions.

**7. Monitoring and project completion**

Tracking tasks. Incidence management. Managing changes to requirements. Project Monitoring. Quality Management. Quality reference models. Tools for project tracking. Practical aspects of project management. Closing acquisitions. Evaluation of results. Conclusions.

8. The national and international telecommunications sector

Legal telecommunication framework. The Information Technology and Telecommunications Market. Regulatory agencies and agents. Competent institutions in the field of telecommunications. Professional Associations. Certifications. Labor market.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	26,00	100
Laboratory practices	8,00	100
Classroom practices	8,00	100
Seminars	4,00	100
Tutorials	4,00	100
Development of group work	10,00	0
Development of individual work	18,00	0
Study and independent work	5,00	0
Preparation of evaluation activities	11,00	0
Preparing lectures	10,00	0
Preparation of practical classes and problem	15,00	0
Resolution of case studies	6,00	0
TOTAL	125,00	

TEACHING METHODOLOGY

The teaching methods that will be used throughout the course are:

MD1.- Theoretical activities:

AF1.- Expository development of the subject with the student's participation in the resolution of specific issues. Performing individual evaluation questionnaires.



MD2.- Practical activities:

AF2.- Learning through problem solving, exercises and case studies, making use of the skills acquired throughout the course.

MD3.- Competences:

AF3.- Attendance at courses, conferences, round tables and other activities organized and / or proposed by the Master Committee.

EVALUATION

The assessment will consider the following items and gradings:

SE1.- Exam (50% of the final mark)

SE2.- Homework (35% of the final mark)

SE3.-

- Attendance to the course lessons (5% of the final mark)
- Positive disposition when attending the course lessons (5% of the final mark)
- Work at the classroom (5% the final mark)

For the students who cannot attend the course lessons, an alternative evaluation is proposed, where the attendance is replaced by solving additional homework.

The minimum mark required to pass the course is 5.0 over 10 in both the final exam and homeworks. The remaining items are not subjected to a minimum.

To evaluate the attendance, the student needs to attend at least 75% of the course lessons.

In any case, the system of evaluation will be ruled by the established in the Regulation of Evaluation and Qualification of the University of Valencia for Degrees and Masters.

http://www.uv.es/graus/normatives/2017_108_Reglament_avaluacio_qualificacio.pdf



REFERENCES

Basic

- J. R. Meredith, S. J. Mantel Jr. Project Management: A Managerial Approach, Wiley, 2012.
- Steve Blank, The Four Steps to the Epiphany, ISBN 0989200507, 2013
- Eric Ries, The Lean Startup, Penguin Books, ISBN 978067921607, 2011
- IEEE Draft Guide: Adoption of the Project Management Institute (PMI) Standard: A Guide to the Project Management Body of Knowledge (PMBOK Guide)-2008 (4th edition), IEEE P1490/D1, May 2011

Additional

- C. S. Chatfield, T. D. Johnson. Microsoft Project 2010. Paso a Paso. McGraw-Hill, 2010.
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- J. K. Shim, J. G. Siegel, A. I. Shim, Budgeting Basics and Beyond, Wiley Corporate, 2011