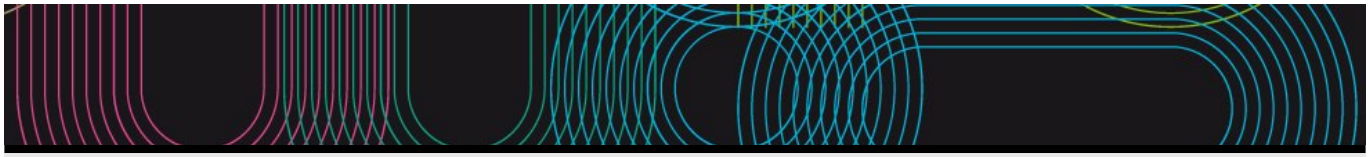
Universidade Vigo

Subject Guide 2023 / 2024



IDENTIFYING DATA				
Technology Management				
Subject	Technology Management			
Code	V05G301V01426			
Study programme	Grado en Ingeniería de Tecnologías de Telecomunicación			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	4th	2nd
Teaching language	#EnglishFriendly Spanish English			
Department				
Coordinator	González Castaño, Francisco Javier			
Lecturers	Díaz Otero, Francisco Javier Docio Fernández, Laura González Castaño, Francisco Javier Rodríguez Estévez, Judith Soledad			
E-mail	javier@det.uvigo.es			
Web	http://https://moovi.uvigo.gal/			
General description	This course provides skills in design, management and leadership of technological projects. This includes detection of needs, technological surveys, team creativity techniques, project management, property definition and protection, and business models. The course is taught in Spanish and English. English Friendly subject: International students may request from the teachers: a) resources and bibliographic references in English, b) tutoring sessions in English, c) exams and assessments in English.			

Training and Learning Results	
Code	
B7	CG7: The ability to analyze and assess the social and environmental impact of technical solutions.
B8	CG8: To know and apply basic elements of economics and human resources management, project organization and planning, as well as the legislation, regulation and standarization in Telecommunications.
C54	(CE54/PY1) The ability to elaborate the proposal of technical projects according to the specified requirements in a public competitive bidding.
C55	(CE55/PY2) The ability for technical direction of telecommunication project.
C56	(CE56/PY3) The ability to manage telecommunication project human resources and economic.
C57	(CE57/PY4) The ability to elaborate technical reports and for the follow up of a telecommunication project.

Expected results from this subject	Training and Learning Results	
- To analyze the technical and economic feasibility of a project. Project budgets.	B7 B8	C55 C56 C57
- To learn how to find statistical information and indicators - To learn how to perform technological surveys and consulting		C57
- Project reporting		C54 C55 C56 C57
- Project planning and management	B8	C54 C55 C56
- Sociological and human aspects of projects		C55 C56

- Learn the regulations in telecommunications, privacy and environment	B7	C54
- To develop models for the creation of entreprises, products and services	B8	C55
- To propose business models in telecommunications		C56
- Learn how to apply the main certification directives	B7	
Using software tools to solve problems related to the contents of the subject.		

Contents	
Topic	
Project design and management	- Definition of technical goals - Translating goals into tasks - Planning the project - Project resources - Human team. R&D profiles - Budget - Tracking project evolution
Identifying and interpreting needs	- Gathering requisites - Translating needs into technical objectives - Technological perspective. Hype cycles - Sources and methods for technical surveys
Creativity techniques	- Research, development and innovation - Team methods to boost creativity - Is my idea original? Formulating and evaluating it
Collaborative Tools	- Purpose - Tools - Tool-assisted collaborative techniques
Legal aspects	- Types of property: Intellectual and industrial - Technological actives vs. legal property. Models, patents. Licenses - Spanish case/international case. Europe and the US. Internationalization hints - CIN/352/2009 regulation
Business models. Entrepeneurship.	- Product proposal - Risk analysis - Customer survey - From the idea to the business plan - First steps towards the creation of an enterprise
(*)-	(*)-

Planning			
	Class hours	Hours outside the classroom	Total hours
Lecturing	24	38	62
Project based learning	4	20	24
Practices through ICT	28	36	64
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies	
	Description
Lecturing	Oral presentation of the main concepts of the course by the professors, supported by multimedia. Lectures by experts. Through this methodology the competencies B7, B8, C54, C55, C56 and C57 are developed.
Project based learning	Group project to be presented during class hours A of the last week. Through this methodology the competencies C54, C55, C56 and C57 are developed.
Practices through ICT	Practice on aspects of specification of requisites, creativity and business plans (in groups) and project planning using computer tools (individual). Through this methodology competencies C54, C55, C56 and C57 are developed.

Personalized assistance	
Methodologies	**Description**
Lecturing	The professors will be available during tutoring hours to clarify any doubts on master session contents. Tutoring hours will be published at the beginning of the course at https://atlanttic.uvigo.es/es/equipo/staff/francisco-javier-gonzalez-castano/.

Project based learning	All techniques in the course will be applied to the creation and planning of a project. The project will be performed in groups. At the beginning of the course, the professors will notify a working field for the course (ex. medical applications, intelligent furniture). Projects will focus on product proposals in that specific working field. Nevertheless, the professors will track individual performance, and at the final defence there may be individual questions. Personalized individual attention on these aspects will take place during official tutoring times or via e-mail at any time.

Assessment

	Description	Qualification	Training and Learning Results	
Lecturing	Exam	35	B7 B8	C54 C55 C56 C57
Project based learning	Individual defense (commitee), evidences, peer evaluation	40		C55 C56 C57
Practices through ICT	Evaluation of partial results+exam	25		C55 C56 C57

Other comments on the Evaluation

ORDINARY OPPORTUNITY with CONTINUOUS EVALUATION:

· Individual exam (Maximum 3.5 points). Official calendar.

· Intermediate practical test (Maximum 1.5 points).

· Final project (Maximum 4 points).

· Participation in class (Maximum 1 points).

To pass the course, the final student score (as the sum of the previous activities) must be 5 points or more. Maximum score is 10 points. To pass the course it is necessary to get at least 1/4 in the individual exam.

The project will be performed in groups of 5-6 people. Individual scores will be assigned according to student interaction in B hours, peer review and the part corresponding to each student in the public project defence.

EXTRAORDINARY OPPORTUNITY with GLOBAL EVALUATION:

It will consist in an exam with theoretical and practical parts in the official date. The practical part will cover the same content as the continuous evaluation along the course.

Sources of information

Basic Bibliography

Carl Chatfield,Timothy Johnson, **Microsoft Project 2013 Step by Step**, 1, Microsoft Press, 2013

Complementary Bibliography

Michael Michalko, **Thinkertoys: A Handbook of Creative Thinking Techniques**, 2, Ten Speed Press, 2006

Alexander Osterwalder, Yves Pigneur, **Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers**, 1, John Wiley and Sons, 2010

Edward de Bono, **Six Thinking Hats**, 2, Back Bay Books, 1999

Recommendations