

Project Management (GP) 23979

Course 2021-22 (Eutopia)

1. Course description

Subject/course: Project Management

Code: 23979 Type: Mandatory/Optional

Degrees (mandatory):

 Bachelor's Degree in Audiovisual Systems Engineering

 Bachelor's Degree in Telecommunications Network Engineering

 Bachelor's Degree in Mathematical Engineering in Data Science

Degrees (optional):

 Bachelor's Degree in Computer Engineering

Degrees (transversal of free election):

 Any other Degree at the UPF

Credits: 5 ECTS

Course: Fourth

Term: First

Professors: Miquel Oliver, Elisabet Duocastella, Alejandro Oller

Teaching Assistant: Lola Berna

Mentors: Experts from the organizations involved in that edition

Languages: Catalan-Spanish-English, all materials in English

Schedule: Mondays 14.30; Tuesdays 18.30h; Wednesdays (online) 18.30;

Fridays 16.30h

2. Course introduction

The course Project Management (PM) is framed within the series of courses of management, regulation and innovation, and it is mandatory within the teaching material of engineering programs of ESUP except for the IT one where it is optional. The course is also offered to the different degrees of UPF within the transversal program of free choice.

PM introduces the student to the world of information technologies and communication (ITC) project management. Every engineer is characterized by carrying out an efficient management of the resources to achieve some goals. In this course, the basic concepts of *project management* are introduced which at the same time are put into practice through some tools for simulation of environments managed by projects.

This course has a great practical part which includes the basic concepts of time management, work planification, risk, resource management and expenditures' elaboration, among others. The course represents an important change in the methodology due to the fact of intensively using project-based learning.

This time, the course is framed within the European alliance EUTOPIA about the transformation of the universities in a multi-university, multidisciplinary and multilingual work environment, like an open federation of higher-education institutions. The students will deal with a series of challenges presented by the organizations involved in the course, which in this edition will be eDreams-ODIGEO and INCASOL, following the methodology proposed by EUTOPIA presenting answers for these challenges in the shape of projects. The students will work in the execution of a project organized in groups under the mentoring of experts in the topics and the supervision of the course professors. The EUTOPIA community will decide the continuity of the projects beyond the course as well as the selection and continuation criteria.

3. Course competencies to accomplish

Competencies developed in the course according to the degree's Teaching Plan.

Basic competencies	Specific competencies (learning results) and transversals competencies
<p><i>CB1. Students must demonstrate having acquired and understood the knowledge in a study area that comes from secondary general education and that is used to be found in a level where, even though it is supported in advanced book texts, some aspects that imply the knowledge coming from the avant-garde of its field of study are also included.</i></p> <p><i>CB2. Students must know how to apply their knowledge to their job or vocation in a professional way, and must have the competencies which they can show through the elaboration and defense of arguments and the resolution of conflicts in their field of study.</i></p> <p><i>CB3. Students must have the capacity of gathering and interpreting relevant data (usually within their field of study) to create opinions that include a reflection about the relevant topics of social, scientific or ethical reference.</i></p> <p><i>CB4. Students must transfer information, ideas, problems or solutions to a specialized or non-specialized public.</i></p> <p><i>CB5. Students must develop the learning skills needed to start following studies with a high level of autonomy.</i></p>	<p>CE6. Dominate the business concepts, their institutional and legal framework, as well as the organization and business management frameworks.</p> <p>RA.CE6.1 Recognizes the concept of business, its institutional and legal framework, as well as the organization and business management frameworks.</p> <p>RA.CE6.2 Identifies the aspects relating to the business organization and management.</p> <p>CT1. Working in teams in international and interdisciplinary contexts.</p> <p>CT2. Exert leadership and coordination and demonstrate initiative.</p> <p>CT3. Apply with flexibility and creativity the knowledge acquired and adapt it to new contexts and situations.</p> <p>CT4. Communicate in academic and professional contexts in oral and written English.</p> <p>CT5. Create new ideas and incorporate them into daily work.</p>

4. Course content and structure

The course is structured according to the content mentioned in the sessions shown below.

			ON CAMPUS		ON CAMPUS		OFF CAMPUS		ON CAMPUS	
			MONDAY 14:30h~16:30h	Deliverables Monday 23:55h	TUESDAY 18:30h~20:30h		WEDNESDAY 18:30h~20:30h	Deliverables Wednesday 23:55h	FRIDAY 16:30h~18:30h	Deliverables Sunday 23:55h
Pre Project	Week 1	27-1/oct	INTRODUCTION & KICK OFF		Eutopia project presentation and eDreams/INCASOL presentation of Challenges		PM ² alliance eDreams/INCASOL presentation of Challenges		Roles workshop	Project Core Teams Challenge selection
Sprint -1 Initiating	Week 2	4-8/oct	GLOBAL PROJECT MANAGEMENT		PM ² INITIATING		MENTORING #1		CASE 0 or how to learn with cases	Case 0
Sprint 0 Planning	Week 3	11-15/oct	PM ² INITIATING Working	Project Charter (document + pitch) RfP	HOLIDAY		PM ² PLANNING Working session		Product development workshop	
	Week 4	18-22/oct	PM ² PLANNING		PM ² PLANNING		MENTORING #2	Case 1	CASE 1	Project Work Plan Project Stakeholder Matrix & RfE
Sprint 1 Executing	Week 5	25-29/oct	PM ² EXECUTING		PM ² PLANNING (Quality / Risk)		PM ² MONITOR& CONTROL Working session		Decision making workshop	Quality & Risk MNG Plans MoM Executing Kick-off mtg
	Week 6	1-5-/nov	HOLIDAY		PM ² MONITOR & CONTROL		MENTORING #3	Case 2	CASE 2	Project status report Sprint 1 Increment
Sprint 2 Executing	Week 7	8-12/nov	SPRINT 1 DEMO		PM ² MONITOR & CONTROL		PM ² MONITOR& CONTROL Working session		Agile value workshop	Project Work Plan update
	Week 8	15-19/nov	PROJECT MANAGEMENT METHODOLOGIES		CONFERENCE		MENTORING #4	Case 3	CASE 3	Project status report Sprint 2 Increment
Sprint 3 Closing	Week 9	22-26/nov	SPRINT 2 DEMO		PM ² CLOSING		PM ² CLOSING Working		Project closing workshop	RfC Challenge final report

							session			
	Week 10	29-3/des	FINAL DEMOS		FINAL DEMOS		No class		PROJECT END PARTY ED+MO	Project end report

5. Evaluation of the competencies' accomplishment level

Evaluation element	Mandatory	Assessor	Grouping	Grade weight	Able to resit
Projects' deliverables	Yes	Professors and sponsor	Group	50%	No
Project pitch elaboration	Yes	Students	Group	15%	No
Cases elaboration	Yes	Professors	Group	15%	No
Workshops participation	No	Professors	Indiv.	+10%	No
Products' deliverables	Yes	Mentor	Group	20%	No

NOTE 1: The students that assume the role of project manager within their group will increase their grade in half a point (0.5).

NOTE 2: The projects' deliveries' grade will be distributed among the students from the auto-evaluation of each group.

6. Bibliography and academic resources

Basic text material.

- PM2 Project Management Methodology Guide 3.0. December 2018. European Union.
<https://op.europa.eu/en/publication-detail/-/publication/ac3e118a-cb6e-11e8-9424-01aa75ed71a1>

Other texts:

- PMI - (2017) *A Guide to the Project Management Body of Knowledge (PMBOK®Guide)* is PMI's flagship publication and is a fundamental resource for effective project management in any industry.
<https://www.pmi.org/pmbok-guide-standards/foundational/pmbok>
- *Making It Happen: A Non-Technical Guide to Project Management* provides a fresh and clear approach to project management. Written in the form of a novel, it covers the basics of project management in a friendly, interesting, and memorable way.
<https://www.amazon.com/Making-Happen-Non-Technical-Project-Management/dp/0471642347>
- H. Kerzner - (2009) *Project management : case studies - 3rd ed*
- A. Diaz Martin - (2007) *El arte de dirigir proyectos – segunda edición*
- J.-L. Deladrière, F. Le Bihan, P. Mongin, D. Rebaud - (2004) *Organiza tus ideas utilizando mapas mentales*

- Nankivel, Josh – (2010) Su entrenador de la EDT : libera el verdadero poder de Estructura de Desglose del Trabajo

7. Methodology

The course combines the following types of sessions:

- **Introduction** that includes seven sessions: four in the beginning of the trimester of introduction and presentation of project management, two demos of the final presentation of the project to the sponsors, and a closure one which includes an activity in the shape of a workshop and learned lessons.
- **Sessions of PM²** where the work methodology will be presented in a practical way, so it will be possible to apply it directly to the project developed. Nine sessions will be provided which will address the methodology from the project phases (beginning, planification, execution and closure) in addition to the monitoring and control.
- **Sessions of PM² executing** work sessions for groups to work autonomously in order to prepare the deliveries for the applying project presented in the PM² sessions.
- **Sprints or sessions for project monitoring:** in these six face-to-face sessions a brief theoretical content presentation and these concepts' application to the group projects are combined within the EUTOPIA framework (this will be introduced the first week) in addition to the activities of coordination among the different groups. The sessions are grouped in three sprints.
- **Presentations:** sessions in a lecture format, where EUTOPIA, the PM² methodology, and the chosen challenges by the organizations participating (eDreams-ODIGEO i INCASOL) will be presented.
- **Mentoring:** these sessions will be held online among the six members of the project group and the mentor assigned according to the challenge chosen. The mentoring is aimed at orientating, assessing and discussing the preparation of the answer to the challenge (the product). You must leverage these four meetings that you will have.
- **Cases:** in this course we will do a presentation session (which we call "case 0") in addition to three cases to analyze the aspects related to the communication within the organizations, the human resources, the management of huge projects and the expenditures of projects.
- **Workshops:** these sessions are optional and help the development of individual skills for team work. There is no need to say that they are highly recommendable. They are organized based in workshops and the evaluation will be done based on the attendance and the proactive attitude during it. The workshops planned are five: about personality-role in group; about product definition; about decision-making; about agile and about the learned lessons.