Universidad Europea VALENCIA

1. OVERVIEW

Subject area	Data Science Project Management
Degree	Bachelor's Degree in Data Science
School/Faculty	Faculty of Science, Engineering and Design
Year	2º
ECTS	6
Type	Compulsory
Language(s)	Spanish
Delivery Mode	On campus
Semester	1

2. INTRODUCTION

Technology is one of the many factors changing at a breathtaking pace in today's business environment. Companies increasingly rely on the development of new activities and investment to continue providing value to society. This means that project management has become one of the differential factors in the efficiency and effectiveness of a modern organisation. It is increasingly difficult to find companies, particularly in the field of technology, where any action is not considered a project. This means it is essential for future professionals to have profound knowledge and skills in project management.

In this subject, students gain greater knowledge of project management including the different methods, planning and execution and good practices so they have the skills to adapt to and overcome the different challenges they will face in their careers.

3. SKILLS AND LEARNING OUTCOMES

Basic skills (CB, by the acronym in Spanish):

- CB1: Students have shown their knowledge and understanding of a study area originating from general secondary school education, and are usually at the level where, with the support of more advanced textbooks, they may also demonstrate awareness of the latest developments in their field of study.
- CB2 - Students can apply their knowledge to their work or vocation in a professional manner and possess the skills which are usually evident through the forming and defending of opinions and resolving problems within their study area.

Cross-curricular skills (CT, by the acronym in Spanish):

- CT1 - Ethical values: ability to think and act in line with universal principles based on the value of a person, contributing to their development and involving commitment to certain social values.
- CT2 - Independent learning: skills for choosing strategies to search, analyse, evaluate and manage information from different sources, as well as to independently learn and put into practice what has been learnt.

- CT3 - Teamwork: ability to integrate and collaborate actively with other people, areas and/or organisations to reach common goals.
- CT5 - Analysis and problem-solving: be able to critically assess information, break down complex situations, identify patterns and consider different alternatives, approaches and perspectives in order to find the best solutions and effective negotiations.

Specific skills (CE, by the acronym in Spanish):
- CE7 - Ability to understand the life cycle of data, from data operation to data visualisation, including how to glean new information and how to use it.

Learning outcomes (RA, by the acronym in Spanish):
- RA1 - Know the different approaches to project management and choose the most suitable based on quality criteria.

The following table shows how the skills developed in the subject area match up with the intended learning outcomes:

Skills	Learning outcomes
CB1, CB2, CT1, CT2, CT3, CT5, CE7	RA1

4. CONTENTS

Unit 1 - Introduction to project management
- Introduction to project management
- Projects, programmes and portfolios
- The PMO
- Predictive vs. adaptive approaches

Unit 2 - Predictive project management (Waterfall)
- Introduction to PMI and other frameworks
- Cost management
- Time management
- Risk management
- Stakeholders and communication
- Quality and continuous development

Unit 3 - Adaptive project management (Agile)
- Introduction to agility
- Principles behind the agile manifesto
- Agile methodologies and frameworks
- Introduction to Scrum
- Scrum roles, events and artefacts
- ScrumBut
- Scrumban
- Scrum hybrid

5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:

- Master lectures
- Case studies
- Collaborative learning
- Problem-based learning
- Project-based learning
- Learning based on laboratory work (laboratory, workshop and simulated environments)
- Gamification
- Field work (visits, work experience)

6. LEARNING ACTIVITIES

The types of learning activities, plus the amount of time spent on each activity, are as follows:

Learning activity	Number of hours
Master lectures	21
Problem solving and case studies	12
Practical seminars and debates/discussions	11
Laboratory work	27
Field work	3
Learning contract (definition of interests, needs and objectives)	1
Autonomous learning	67
Tutorials	8
TOTAL	**150**

7. ASSESSMENT

The assessment methods, plus their weighting in the final grade for the subject area, are as follows:

Assessment system	Weighting
Activities and challenges [On campus tests to assess theory/practical learning + distance tests to assess theory/practical learning]	50%
Knowledge tests [On campus tests to assess theory/practical learning]	30%
Peer-assessment [Self- and peer-assessment + attitude appraisal tests]	20%

On the Virtual Campus, when you open the subject area, you can see all the details of your assessment activities and the deadlines and assessment procedures for each activity.

8. BIBLIOGRAPHY

- La Guía de los Fundamentos para la Dirección de Proyectos (Guía del PMBOK®). Project Management Institute, Inc.
- Fundamentos De Agile Scrum. Nader K. Rad, Frank Turley. Management Plaza.
- Guía Práctica de Agile. Project Management Institute, Inc.
- Project Management JumpStart. Heldman K. Wiley Publishing, Inc.