

## Value-driven Projects & PMO Data Analysis

**Master's Degree:** Project Management

**Subject:** Equipment performance and measurements

**Credits:** 6 ECTS

**Program:** Master in Project Management

**Modality:** On-campus (Full-Time)

**Semester:** Second

**Type:** Mandatory

**Language of instruction:** English

**Academic year:** 2025/2026

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## 1. Presentation

The Value-driven Projects & PMO Data Analysis subject is essential to understand the importance of value-oriented project management and data analysis in the Project Management Office (PMO). Firstly, this subject provides the necessary tools to understand how to align projects with the strategic objectives of the organization, focusing on the creation of tangible and measurable value. This involves identifying and measuring the expected benefits of a project, as well as making value-based decisions to optimize return on investment.

Additionally, data analytics in the PMO is essential to collect, process and visualize relevant information to make informed decisions and effectively track project performance. This subject addresses the importance of collecting accurate data, using analytical tools, and clearly presenting results to support strategic and tactical decision-making.

Likewise, the subject highlights the relevance of implementing processes for measuring the value generated by projects, which includes the evaluation of the benefits obtained, the impact on stakeholders and the effectiveness in achieving strategic objectives. This value-oriented perspective promotes more efficient and results-focused project management, which is critical to the long-term success of an organization.

On the other hand, data analysis in the PMO also allows identifying trends, risks and opportunities in the project portfolio, which provides the basis for continuous improvement, anticipation of challenges and optimization of resources. This subject provides the skills necessary to critically interpret data, identify significant patterns and take proactive measures to maximize the value of projects.

The subject is essential to develop a value-oriented mindset in project management, as well as to acquire analytical skills that allow data to be used as a strategic asset. This knowledge is essential for making effective decisions, optimizing resources and generating sustainable value in an increasingly competitive and dynamic business environment.

## 2. Program's learning outcomes

The program-related learning outcomes are distributed as follows:

### 2.1. Knowledge

- RAT 1 The graduate will be able to describe the projects needed to implement an strategic plan in a company, by means of real cases study.
- RAT 2 The graduate will be able to identify the implementation of a quality system in a business project through simulation-based learning.

- RAT 4 The graduate will be able to describe the assignment of responsibilities to the members of the departments that integrate a business project, by carrying out written and/or oral tests.
- RAT 5 The graduate will be able to identify correctly the hiring strategies suitable to the needs of each type of project and business environment, through cooperative learning and/or research.
- RAT 6 The graduate will know how to organize the team appropriately for the correct accomplishment of the different phases of each type of project and business environment.

## 2.2. Skills

- RAT 7 The graduate will be able to provide clear and precise explanations of any knowledge/information, both orally and in writing, in Catalan, Spanish and a third language, particularly English.
- RAT 8 The graduate will be able to apply digital technologies (at the right time) in his/her field of expertise.
- RAT 9 The graduate will know how to apply the most suitable management methodology according to the project objectives, in simulation situations.
- RAT 13 The graduate will be able to modify the communication strategy taking into account the different communication policies that a project may require at any particular moment.

## 2.3. Competences

- RAT 18 The graduate will be able to provide innovative, creative and entrepreneurial solutions in professional situations.
- RAT 19 The graduate will be able to evaluate the sustainability and social impact of the proposals presented, with ethical, environmental and professional responsibility.
- RAT 20 The graduate will be able to apply the gender perspective in the professional tasks.

# 3. Subject's learning outcomes

The graduate will be able to apply the gender perspective in the professional tasks.

- RAM 2 The graduate will be able to clearly structure the PHVA process of continuous improvement through cases to be solved in groups.

- RAM 3 The graduate will be able to correctly apply the rules corresponding to the quality management of projects through the study and analysis of regulations and quality standards.
- RAM 4 The graduate will be able to assertively justify decisions by globally considering different aspects (technical, economic, environmental, as well as value driven projects) through group discussions led by the teacher.
- RAM 8 The graduate will be able to review in detail the impact, significance and responsibility of decisions on the development of an individual or group project.

## 4. Contents

- **Topic 1:** Introduction to PMO, programs and portfolios
  - Introduction to a PMO
  - Main definitions
  - Aspects to consider
- **Topic 2:** Benefits of a PMO
  - Reasons for the existence of a PMO
  - Value contribution
  - Data publication
  - Implementation of a PMO
- **Topic 3:** Program and project portfolio management
  - Program management. Definitions and changes in action
  - Portfolio management: domain and scope
  - Prioritization and selection techniques for a portfolio
- **Topic 4:** New PMBOK 7th “Measurement” domain
  - PMO reporting framework
    - Effective measures
  - Presentation of information
    - Obstacles to analysis
  - Performance problem solving and continuous improvement
  - Interactions with other performance domains
  - Verification of results and delivery of value
  - Most used tools
  - Data analysis projects
  - Impact on the business of BigData and Business Intelligence

- **Topic 5:** Reports and dashboards in projects and portfolios
  - Introduction to the Power BI Platform
  - Views
  - Report designs
  - Data analysis
  - Use of PBI artificial intelligence functions for data analysis
  - PBI integration with MSProject

## 5. Methodology

The methodology applied to this subject, framed within the educational model of EAE Business School, LifEd, is detailed in the following table:

PRESENIAL MODALITY		
Learning Outcomes	Teaching Methodology	Training Activities
Knowledge	Lecture	Conferences
	Presentation sessions	Student presentations
	Audiovisual-based learning	Analysis of audiovisuals
	Tutorials	Meetings to resolve doubts    Follow-up meetings
Skills	Project work	Problem-solving Information searching and processing Presentation of reports and/or work
	Case-based learning	Information searching and processing Problem-solving
Competencies	Game-based learning	Challenges
	Inquiry-based learning	Research tasks
	Project work	Report preparation    -    Presentation of reports or work

## 6. Grading system

### Continuous assessment

Grading system	Weight
Block 1: Exercises, Problems, Report Preparation, Assignments, Presentations	40 %
Block 2: Participation and Oral Presentations	20 %
Block 3: Final Evaluation Test	40 %

Block 1 will consist of:

- Two individual evaluable activities. 10% each.
- Two group projects or reports. 10% each.

Block 2 will consist of:

- Participation and oral presentations – 20%.

Block 3 will consist of:

- An exam - 40%.

The final grade for the course will be obtained by weighting the three blocks. The minimum weighted grade required to pass is 5.0.

If the student fails Block 1 or Block 3 (or both) with a grade lower than 5.0, they may retake that block or blocks. This grade will average with the other blocks, and the maximum final grade the student can receive is 5.0.

If the student is unable to attend the initial evaluation, and can provide a justified reason (see regulations of the University of Lleida), they may take the exam on the date set for recovery.

Students who do not attend evaluative activities with a weight exceeding 50% will receive a general course grade of “Not presented.”

### Alternative Evaluation

The single evaluation consists of a single exam that accounts for 100% of the course. The exam, and therefore the course, is passed with a grade of 5 out of 10 in this final test. If a grade lower than 5.0 is obtained, the student has the right to a recovery exam.

To opt for the single evaluation, it is necessary to send a written request to the coordination during the first 15 business days of the course. The procedure to follow to opt for this single evaluation is established in the specific rules of EAE.

Plagiarism is a fraudulent activity that can lead to severe penalties, both academic and legal. Academic honesty is one of the pillars of the educational commitment of the School, and the members of its

teaching community are especially aware and prepared to detect such actions. Given the difficulty often involved in conceptualizing plagiarism, it has been deemed appropriate to clearly define its content and scope in these regulations and policies.

Plagiarism is understood as the appropriation of works or other people's work by passing them off as one's own; that is, without explicitly crediting their origin. Plagiarism can consist of the unauthorized total or partial copying of someone else's work, or presenting the copy as an original work, impersonating the true author. Some examples of plagiarism are:

- Submitting someone else's work as if it were your own, regardless of whether the copy is total or partial.
- Paraphrasing a text by rephrasing it with other words, but making small changes in the language to disguise it and without citing sources.
- Buying or obtaining a work and presenting it as one's own.
- Relying on an idea or phrase from another person to write a new paper without citing the author of the work.

As established in Article 10 of the Academic Code of Conduct for Students at EAE Barcelona, without prejudice to the academic sanctions resulting from its application, the Academic Commission will promote the legal actions that correspond in case plagiarism could violate applicable regulations regarding intellectual property.

## 7. Bibliography

- Project Management Institute. (2016). Governance of Portfolios, Programs, and Projects: A Practice Guide, 1e. Project Management Institute.
- Project Management Institute. (2021). Guía de los fundamentos para la dirección de proyectos | Guía del PMBoK®, 7e. Project Management Institute.
- Rovira Samblancat, P.R., & Pascual Cid, V. (2021). Analítica Visual. Como explorar, analizar y comunicar datos, 1e. ANAYA Multimedia.
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- Spalek, S. (Ed.). (2018). Data Analytics in Project Management, 1e. Auerbach Publications. Deusto.