



centro adscrito a:



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

TEACHING GUIDE MASTER'S DEGREE FINAL PROJECT 2025-26

GENERAL DATA

Name:	Master's Degree Final Project
Code:	
Course:	2025-26
Titration:	Master's Degree in Financial Innovation and Fintech
Number of credits (ECTS):	15
Location in the curriculum:	1st Course, 2nd Semester
Department:	
Head of department:	
Date of last revision:	March 2025
Teaching staff:	

1. OVERVIEW

The TFM is the integrative subject where students demonstrate the acquisition of advanced skills related to financial innovation, blockchain technology and financial decentralization (DeFi) models. The work will be developed under the tutelage of a PhD professor and will be defended before an academic tribunal.

Four types of TFM are established:

1. **FinTech/DeFi business plan** — development of a complete business plan for a technology-based financial solution, product, or service (e.g., open banking, tokenization, smart payment).
2. **Innovation project** — design, prototyping and validation of a technological or process improvement within the financial sector (e.g. scoring algorithm with explainable AI, smart-contracts for KYC/AML).
3. **Documentary synthesis work** — systematic review or mapping study that consolidates the state of the art on a FinTech/DeFi topic (e.g. stablecoins, tokenized green finance).
4. **Intervention and improvement project** — diagnosis and action plan to optimize or transform the reality of a particular organization (e.g., migration of treasury to a DeFi solution or operational risk reduction with DLT).

2. OBJECTIVES

- Integrate the program's knowledge across the board to solve real challenges in the FinTech and DeFi industry.

- Develop strategic competencies to devise, lead, and implement financial innovation projects.
- Encourage rigorous research and data-driven decision-making in contexts of high uncertainty and changing regulation.
- Demonstrate written and oral communication skills, as well as critical defense before specialists.

3. LEARNING OUTCOMES

At the end of the course, the student will be able to:

K9.2: Differentiate different use cases and recognize the successes and failures of financial technology projects in the market.

K10.1: Distinguish the different business opportunities derived from technological innovations in the financial sector.

K10.2: Define projects that provide a technological and innovative response to problems or use cases in the financial sector.

S1.1: Communicate effectively orally, in writing and graphically with other people about learning, thinking and decision-making, and participate in debates, making use of interpersonal skills, such as active listening and empathy, which favour teamwork.

S2.1: Develop the ability to contribute to innovation in new or existing business institutions and organizations, through participation in creative projects and have the ability to apply skills and knowledge on technology-based entrepreneurship, organization and business development.

S3.1: Understand advanced digital technologies, so that they can be applied with a critical perspective, in diverse contexts, in academic, professional, social or personal situations.

S13.1: Develop profitable business projects that are environmentally friendly, socially responsible, and promote teamwork and innovation.

S13.2: Evaluate different alternatives that provide a technological and innovative response to problems or use cases in the financial sector.

S13.3: Prepare and present a final master's project on a relevant topic that is well written, structured and referenced.

C1.1: Integrate the values of sustainability, understanding the complexity of systems, in order to undertake or promote actions that restore and maintain the health of ecosystems and improve justice, thus generating visions for sustainable futures.

C2.1: Identify and analyse problems that require autonomous, informed and reasoned decision-making, in order to act with social responsibility, following ethical values and principles.

C3.1: Develop the capacity to assess inequalities based on sex and gender, in order to design solutions.

C11.1: Solve problems in the field of technological finance in order to build innovative and sustainable business models.

C11.2: Present ideas and projects in a clear and well-argued way, using the appropriate means of support.

We can highlight:

- Propose, justify and execute technically and economically viable FinTech/DeFi projects.
- Apply agile and research methodologies (Lean Startup, Design Thinking, PRISMA, PMBOK).
- Design decentralized governance frameworks and assess their sustainability.
- Argue with academic and professional rigour before a multidisciplinary tribunal.

4. CONTENTS

4.1 FinTech/DeFi Enterprise Plan

Contents

1. Executive summary.
2. Description of the opportunity and value proposition.
3. Business model (CANVAS & Tokenomics).
4. Marketing and growth plan.
5. Operations and technology plan.
6. Legal-regulatory plan.
7. Economic-financial plan (scenarios; NPV/IRR; stress-testing).
8. Risks and contingency plan.
9. Conclusions and roadmap.
10. Bibliography and annexes.

4.2 Innovation project

Contents

1. Introduction and objectives.
2. State of the art and theoretical foundations.
3. Methodology (SCRUM, OKR, proofs of concept).
4. Design and development of the solution.
5. Validation and experimental results.
6. Impact and scalability.
7. Conclusions, limitations and future lines.

8. Bibliography and annexes.

4.3 Work of documentary synthesis

Contents

1. Introduction and research question.
2. Search method (bases, inclusion/exclusion criteria, PRISMA protocol).
3. Analysis and categorization of the literature.
4. Results and evidence map.
5. Critical discussion and identified gaps.
6. Research conclusions and recommendations.
7. Complete bibliography and matrix of articles.
8. Annexes.

4.4 Intervention and improvement project

Contents

1. Description of the organization and problems.
2. Diagnosis (PESTEL analysis, VSM, maturity assessment).
3. SMART goals and reach.
4. Design of the improvement plan (actions, managers, KPIs).
5. Pilot implementation.
6. Evaluation of results and ROI.
7. Sustainability, scaling and change management.
8. Conclusions, limitations, and bibliography.
9. Annexes.

5. METHODOLOGY

- Initial keynote session (2 h): presentation of regulations and modalities.
- Seminar on good practices (2 h): ethics, intellectual property and research techniques.
- 7 compulsory tutorials (1 hour each) distributed throughout the semester, with previous deliverables and iterative feedback.
- Complementary activities: masterclasses with professionals from the sector and visits to FinTech hubs.

6. EVALUATION

The evaluation of the subject will have the following components:

1. Attendance at activities with a weight of 5%. Individual qualification.
2. Compliance, attitude and content of the deliveries prior to the tutorials with a weight of 15%. Individual qualification.
3. Quality of the final document with a weight of: 50%. Group grading.
4. Presentation and defence before a court with a weight of: 30%. Individual qualification.

To access the presentation and defense, the approval and authorization of the tutor must be obtained. Deadlines will be available in the virtual classroom.

7. BIBLIOGRAPHY

Basic:

- Blank, S. & Dorf, B. (2020). *The Startup Owner's Manual*. Wiley.
- European Association of Science Editors (2021). *Directrices EASE* (versión española).
- Hernández Sampieri, R., Fernández Collado, C., & Baptista, P. (2022). *Metodología de la investigación* (7.ª ed.). McGraw-Hill.
- Schueffel, P. (2021). *The Emerging Disruptive Innovation in FinTech*. Routledge.
- Tapscott, D. & Tapscott, A. (2018). *Blockchain Revolution*. Penguin.

Complementary:

- Catalini, C. & Gans, J. (2021). *Some Simple Economics of the Blockchain*. MIT.
- Osterwalder, A. & Pigneur, Y. (2020). *The Invincible Company*. Wiley.
- Torres, T. (2024). *Descentralización financiera y regulación europea MiCA*. Thomson-Reuters.
- World Economic Forum (2023). *Digital Assets, Distributed Ledger and the Future of Capital Markets*.

Digital Resources:

- Bank for International Settlements (www.bis.org)
- Bloomberg Terminal (institutional access)
- ECB Statistical Data Warehouse (sdw.ecb.europa.eu)
- FRED Economic Data (fred.stlouisfed.org)
- International Monetary Fund (www.imf.org)
- The Financial Times (www.ft.com)
- World Economic Forum - Financial and Monetary Systems (www.weforum.org)



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