DETAILED CURRICULUM & COURSE SYLLABI

A.Y. 2025/2026

INTRODUCTION

The Executive Master Programme in Project Management for Business Performance and Innovation is designed to equip professionals with the strategic, organizational, and technical competencies needed to lead innovation and manage transformation in project-based and project-intensive environments. Rooted in Project, Programme, and Portfolio Management (PPPM) principles, the programme prepares participants to effectively align business objectives with project execution in complex and dynamic contexts.

The programme aims to strengthen participants' professional skillset by combining conceptual foundations with applied tools and methods. The curriculum is structured around a set of core modules that span the full project management lifecycle, ensuring a balanced development of technical, organizational, and leadership competences.

Key educational objectives include:

- Enhancing mastery of project management fundamentals, including business cases, contracts, WBS, scheduling, and organizational structures.
- Developing a deep understanding of methodologies and life cycle models (predictive, iterative, incremental, agile), with hands-on training in tools like Jira and SCRUM simulations.
- Acquiring practical knowledge in project initiation, planning, budgeting, financial analysis (NPV, IRR, DSCR), and resource-based scheduling.
- Understanding risk management principles and methods.
- Gaining proficiency in monitoring and control practices, including Earned Value Management (EVM), EIA-748 standards, and control theory.
- Strengthening soft skills such as leadership, communication, results orientation, and teamwork through case studies and presentations.
- Exploring project portfolio structures and organizational dynamics in projectised business models.
- Preparing for project management certifications by reinforcing industry standards and best practices.

A distinctive feature of the programme is the capstone project, which runs alongside the academic coursework. Participants engage in a real-world business case focused on projectisation within a host organization, fostering the application of learned concepts to tangible business challenges and networking opportunities.

The programme combines in-person lectures at Politecnico di Torino with distance learning via webinars, digital content, and open educational resources. This hybrid format enables flexibility while maintaining academic rigor and professional relevance.

TRAINING OBJECTIVES, LEARNING CONTENTS AND ORGANIZATION OF THE ACTIVITIES

The purpose of the Programme is to establish a modern, project management-centric skillset that integrates practice-specific knowledge with key competencies in business leadership, governance, and organizational management—capabilities essential for driving innovation and enhancing business performance in today's projectised environments.

The learning model blends in-person sessions held at Politecnico di Torino with digital components, including distance learning through recorded lectures, live webinars, and multimedia web-based resources.

A capstone project will be developed in parallel with the academic curriculum, centered on a real-world in-company business case focused on projectisation. This applied project will continue throughout the duration of the programme, enabling participants to directly implement and refine their learning within a practical, organizational context.

CLASS FORMAT AND TEACHING METHODOLOGY

The class format integrates a variety of teaching methods, including lectures, case study analyses, open discussions, student presentations, and contributions from industry guest speakers. A central element of the programme is the capstone project, which offers a valuable competence-building opportunity. It enables participants to apply content-based learning in a real-world business context, fostering connections with economic organizations and direct engagement with current business challenges.

The distance learning component primarily consists of key webinars that introduce each course and outline the learning objectives. It also involves a structured use of open educational resources to support the acquisition of factual knowledge, including essential terminology and specific elements of the project management body of knowledge.

In-person classes reinforce conceptual knowledge—such as classifications, principles, theories, models, and frameworks—and place a strong emphasis on procedural knowledge. This includes the development of subject-specific skills, techniques, and methods, along with the criteria for selecting and applying appropriate procedures in professional practice.

PROGRAMME DIRECTOR

Alberto De Marco

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COURSE #1 – PROJECT MANAGEMENT BASICS

LEARNING OBJECTIVES

Participants will gather knowledge and gain skills in Project Management as an organizational management system enabling performance, game-changing and innovation in businesses and processes. The main topics will include: Project Portfolio Management to connect strategy with projects and operations, traditional waterfall Programme/Project Management knowledge areas and processes for long term planning, Agile Project Management methodologies and tools to help the planning, execution and control processes in uncertain businesses environments. A comparative discussion for Waterfall and Agile methodologies, such as Scrum, will be supported by analysing a variety of case studies in various businesses.

LEARNING OUTCOMES

Knowledge

- Understand and describe the key components of project planning within recognized standards and frameworks (e.g., WBS, OBS, RAM, scheduling).
- Apply planning as a forecasting activity, identifying likely project outcomes based on owner intent, work decomposition, sequencing, and integration of time, cost, quality, risk, communication, and stakeholder management.
- Use planning as an optimization exercise, evaluating multiple scenarios and decision alternatives using what-if analysis and optimization theory.
- Recognize planning as a dynamic process, incorporating system dynamics to simulate real project behavior, rework cycles, and feedback from corrective actions.
- Understand stakeholder-driven planning, focusing on requirement traceability and benefits realization.
- Align planning processes with organizational governance, integrating project planning into portfolios and programs.

Skills

- Define contract structures and project delivery systems.
- Develop project charters and business cases, and evaluate financing options for portfolios, programs, and projects (PP&Ps).
- Manage project scope using breakdown structures (WBS/OBS), and plan and control budgets.
- Create time and resource schedules using deterministic and probabilistic methods; apply heuristic techniques for resource-based scheduling and project optimization.
- Conduct decision-making analysis (e.g., time-cost trade-offs using decision trees).
- Utilize professional project management software tools, including Microsoft Project, for planning and decision support.

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COURSE #2 – METHODOLOGIES AND PROCESSES

LEARNING OBJECTIVES

This course aims to provide participants with a thorough understanding of the main project management life cycle models and execution frameworks, from traditional predictive approaches to adaptive Agile methodologies. By exploring both theory and practice, participants will learn to choose and tailor methodologies based on the complexity, uncertainty, and goals of their projects.

The course focuses on:

- The evolution and structure of project life cycles: predictive, iterative, incremental, and agile.
- Comparative analysis of Waterfall (PMI, PRINCE2) and Agile methodologies (Scrum, Kanban, Scrumban).
- Practical application of Agile frameworks, including backlog grooming, sprint planning, sizing, and release planning.
- Tool-supported Agile practice using platforms such as Jira.

LEARNING OUTCOMES

Knowledge

- Understand the characteristics, structure, and theoretical foundations of various project life cycle models.
- Distinguish between predictive (Waterfall) and adaptive (Agile) approaches in terms of roles, processes, deliverables, and governance.
- Recognize the principles of Agile methodologies, including Scrum roles, ceremonies, and artifacts.
- Identify the benefits, constraints, and trade-offs of applying different methodologies in various organizational and project contexts.

Skills

- Select and tailor project management methodologies based on project needs and environmental factors.
- Apply Agile techniques such as backlog prioritization, story sizing, sprint planning, and iterative delivery.
- Use Agile project management tools like Jira to support project visualization, tracking, and collaboration.

- Facilitate cross-functional team alignment through practical simulations and exercises based on Scrum and Kanban workflows.
- Critically assess the applicability and integration of hybrid approaches combining elements of both Waterfall and Agile.

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COURSE #3 – INITIATING, PLANNING, AND CONTRACTING

LEARNING OBJECTIVES

This course equips participants with the tools and techniques required to initiate and plan projects with strong contractual, financial, and scheduling foundations. Emphasis is placed on integrating financial evaluation with project planning and scheduling decisions, enabling effective resource allocation, risk management, and value optimization.

Participants will explore the key processes and knowledge areas related to:

- Project initiation through contracting and budgeting.
- Financial analysis and investment decision-making for projects and programs.
- Advanced scheduling methods, integrating resource constraints and optimization techniques.
- Practical scheduling tools and methods including network-based approaches (CPM, PDM) and critical chain planning.

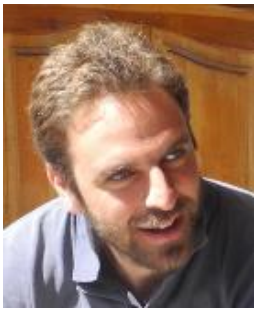
LEARNING OUTCOMES

Knowledge

- Understand the fundamentals of contracting and budgeting in the project lifecycle.
- Interpret and apply financial analysis methods, including:
    - Income Statement structure
    - Net Present Value (NPV)
    - Internal Rate of Return (IRR)
    - Payback Period (PB)
    - Debt Service Coverage Ratio (DSCR)
    - Debt/Equity Optimization
- Recognize key scheduling concepts and techniques:
    - Resource-based scheduling (constraints, leveling, smoothing, productivity optimization)
    - Network scheduling methods (CPM, PDM, CCM, Line of Balance)

Skills

- Prepare and assess project budgets and financing plans using financial metrics and optimization criteria.
- Model project timelines using advanced scheduling techniques and identify critical paths and bottlenecks.
- Apply scheduling algorithms to balance time, cost, and resource constraints in planning scenarios.
- Use decision-support tools to evaluate trade-offs between alternative planning and contracting strategies.
- Integrate financial and scheduling logic into project baselines and performance management plans.



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COURSE #4 – PROJECT RISK MANAGEMENT

LEARNING OBJECTIVES

The course provides participants with a thorough understanding of Project Risk Management processes, techniques and tools. Understand risk as variance that may lead to positive or negative consequences, to achieve the goal to maximize the probabilities and opportunities of positive variance and minimize the probabilities and impact of negative risks, building on personal, organizational, and industry knowledge of project variance.

During the course, participants discover and apply both qualitative and quantitative techniques to identify, analyse, respond to and monitor risk. They learn how to prevent, mitigate or accept risk and the inherent trade-offs and decision making implications. The course also extends to risk measurement metrics (financial and non-financial) for portfolio risk allocation.

LEARNING OUTCOMES

Knowledge

- Identify and describe risk management within the Project Management standard practice:
- Risk responsiveness and agility: welcome change and steer through uncertainty;
- Risk communication and sharing: stakeholders' management

Skills

- Identify Risks, Analyse Risks Qualitatively, Analyse Risks Quantitatively, Plan Risk Responses, and Control Risks;

- Project variance: Stochastic and Bayesian variance and risks, trade-off and strategies of prevention, mitigation, acceptance.
- Risk financials and allocation: metrics, contingencies, optimization and offloading negotiation;
- Processes Alignment: consolidating risk financials to governance systems, consolidating portfolios discounted NPVs and VAR

Carlo Rafele

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COURSE #5 – PROJECT MONITORING AND CONTROL

LEARNING OBJECTIVES

This course is designed to provide participants with the knowledge and tools to effectively monitor project performance and implement control mechanisms. Emphasis is placed on integrating earned value principles, performance measurement techniques, and control theory to ensure that project execution remains aligned with planned objectives in terms of scope, time, cost, and quality.

Participants will learn to:

- Apply the EIA-748 standard for Earned Value Management (EVM).
- Interpret key performance indicators and variances.
- Use control theory concepts to analyze deviations and implement corrective actions.
- Translate monitoring results into actionable project decisions.

LEARNING OUTCOMES

Knowledge

- Understand the principles and structure of the EIA-748 Earned Value Management System (EVMS).
- Recognize and apply performance measurement methods in project environments.
- Grasp the theoretical underpinnings of control systems in project management.
- Distinguish between cost, schedule, and performance indicators and interpret their interdependencies.

Skills

- Calculate and interpret Earned Value metrics (PV, EV, AC, SV, CV, CPI, SPI).
- Analyze project performance through exercises and scenario-based assessments (e.g., MCQs).

- Apply control theory concepts to identify variances and determine corrective and preventive actions.
- Use monitoring data to support decision-making, reporting, and forecasting.
- Implement an effective performance control cycle within a project management framework.

Timur Narbaev

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COURSE #6 - SOFT SKILLS FOR PROJECT MANAGEMENT

LEARNING OBJECTIVES

This course aims to enhance participants' interpersonal and leadership capabilities, which are essential for successful project execution. Through a combination of theory, real-world case studies, and practical exercises, participants will develop the soft skills needed to lead teams, manage stakeholders, communicate effectively, and maintain focus on results in high-pressure and complex environments.

Participants will explore and practice:

- Leadership styles and behaviors in project environments.
- Effective communication techniques for diverse audiences.
- Strategies for fostering collaboration and high-performing teams.
- Approaches for maintaining a results-oriented mindset under constraints.

LEARNING OUTCOMES

Knowledge

- Understand the theoretical foundations of leadership and communication in the context of project management.
- Identify key attributes of effective teamwork and collaboration.
- Recognize the importance of emotional intelligence and situational awareness in team leadership.
- Analyze the role of personal effectiveness and results orientation in achieving project objectives.

Skills

- Demonstrate leadership and team facilitation techniques through simulations and case discussions.
- Apply best practices in communication for different project roles and stakeholder groups.

- Use feedback and reflection tools to enhance personal and team performance.
- Deliver impactful presentations that support project goals and influence decision-making.
- Navigate interpersonal dynamics and conflict situations in collaborative project settings.

COURSE #7 – PROJECT PORTFOLIO AND ORGANIZATION

LEARNING OBJECTIVES

This course explores the organizational and strategic dimensions of managing multiple projects and programs in a context of increasing "projectisation" across both public and private sectors. Participants will critically examine how organizational structures evolve to support project-based work, how corporate strategy shapes project portfolio choices, and how emerging organizational forms respond to dynamic environments and stakeholder complexity.

Through theoretical and practical lenses, the course aims to:

- Analyze how organizational design influences project and portfolio management performance.
- Explore classical and contemporary organizational theories in the context of dynamic project environments.
- Develop skills for appraising and managing a portfolio of diverse projects aligned with corporate strategy.
- Understand how to allocate resources effectively across initiatives and evaluate strategic inflection points in organizational evolution.

LEARNING OUTCOMES

Knowledge

- Understand the drivers of "projectisation" and its implications for organizational structure and governance.
- Identify and evaluate different organizational design models and their applicability under varying strategic and contextual conditions.
- Explore the integration of project, program, and portfolio management systems within broader corporate structures.
- Recognize the influence of stakeholder complexity, strategic change, and market dynamics on organizational form and function.
- Understand the theoretical foundations and practical relevance of portfolio management techniques in corporate strategy.

Skills

- Analyze organizational configurations and assess their fitness for supporting project-intensive operations.
- Apply portfolio management techniques to prioritize initiatives, align them with strategic objectives, and allocate resources effectively.
- Anticipate challenges in managing diverse programs/projects under a unified organizational framework.
- Evaluate corporate development roles of projects and define boundary conditions for strategic growth.

- Translate strategic insights into actionable project and organizational decisions through portfolio planning and performance appraisal tools.

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COURSE #8 – PROJECT MANAGEMENT CERTIFICATIONS

LEARNING OBJECTIVES

This course is designed to prepare participants for professional certification in project management, with a focus on the IPMA (International Project Management Association) framework. The course supports learners in reviewing key knowledge areas, understanding exam structures, and applying best practices through collaborative Q&A and exam-style exercises.

Participants will:

- Review the core competencies and standards covered in major PM certifications.
- Understand the structure and expectations of the IPMA certification process.
- Practice applying knowledge through simulated questions and peer-based discussion.
- Gain insights into personal preparation strategies and areas for improvement.

LEARNING OUTCOMES

Knowledge

- Understand the purpose, structure, and recognition of international project management certifications (e.g., IPMA).
- Identify the key competency areas assessed in IPMA certifications (technical, behavioral, contextual).
- Learn the IPMA Individual Competence Baseline (ICB) and how it maps to exam content.
- Recognize common question types, domains, and terminology used in certification exams.

Skills

- Apply exam techniques to analyze and respond to IPMA-style questions.
- Participate in group-based Q&A sessions to reinforce understanding and peer learning.
- Assess personal readiness and identify areas requiring further review.
- Develop a study plan and preparation strategy tailored to the IPMA exam format.