AI-Driven Project Management with Generative AI Tools

25 October – 5 November 2027
Milan (Italy)



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AI-driven project management is the use of generative AI tools and predictive analytics to draft, test and monitor project plans, risk registers and status reports, with the project manager checking every output. This 2-week advanced course is for experienced project managers and PMO professionals, and its final deliverable is an AI-assisted project control pack: a tested prompt set, a draft plan, a scored risk register and reporting templates.

Introduction

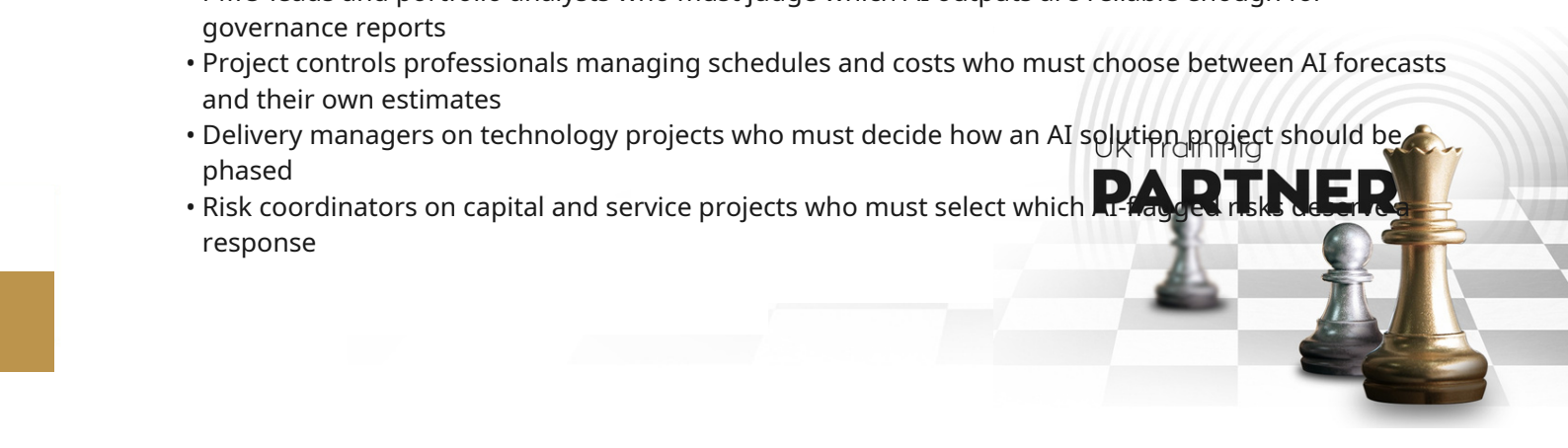
The course rests on three references. Generative AI prompting for project managers covers how large language models draft charters, schedules, risk statements and reports from structured instructions. The PMI-CPMAI framework is a data-centred method for running projects that build or deploy AI. Copilot in Dynamics 365 Project Operations shows how a project tool scores risks from scope, schedule and budget data and proposes mitigation. Depth is advanced and assumes delegates already run projects. Teaching uses hands-on labs with AI tools on case studies from construction and financial services.

Course Objectives

- Distinguish generative AI from predictive analytics and select the right one for drafting, forecasting or monitoring tasks
- Apply structured prompt patterns to produce charters, work breakdown structures and minutes that need minimal rework
- Compare qualitative risk judgement with AI-scored probability and justify which estimate goes into the risk register
- Interpret AI-generated schedule, earned value and anomaly signals before reporting them to sponsors
- Define the review, confidentiality and sign-off rules that keep AI-generated project decisions accountable
- Apply the PMI-CPMAI framework phases when a project itself builds or deploys an AI solution

Target Audience

- Project managers running multi-team projects who must decide which planning and reporting tasks to hand to AI tools
- PMO leads and portfolio analysts who must judge which AI outputs are reliable enough for governance reports
- Project controls professionals managing schedules and costs who must choose between AI forecasts and their own estimates
- Delivery managers on technology projects who must decide how an AI solution project should be phased
- Risk coordinators on capital and service projects who must select which AI-flagged risks deserve a response



Course Outline

Day 1: Generative AI Foundations for Project Managers

- Generative AI vs Predictive Analytics: Two Different Uses of AI in Project Delivery
- Large Language Models: How Text Generation Works and Where It Fails
- Hallucination and Bias: Recognising Unreliable AI Output in Project Documents
- AI Use-Case Mapping: Matching Project Management Tasks to Suitable AI Tools
- Project Data Readiness: Assessing Schedules, Registers and Reports as AI Inputs

Day 2: Prompt Design for Project Artefacts

- Zero-Shot vs Few-Shot Prompting: Choosing Prompt Patterns for Project Artefacts
- Role, Context and Constraint Prompts: Structuring Requests for Consistent Project Output
- Reusable Prompt Libraries: Storing Tested Prompts for Charters, Plans and Minutes
- Prompt Chaining: Breaking Complex Planning Requests into Sequenced AI Steps
- Output Verification Checklist: Reviewing AI Drafts for Accuracy and Traceability

Day 3: AI-Assisted Scope Definition and Work Breakdown

- AI-Drafted vs Team-Built Work Breakdown Structure: Comparing Coverage and Ownership
- Requirements Extraction: Turning Meeting Transcripts and Emails into Scope Statements
- Project Charter Drafting: Generating Objectives, Assumptions and Constraints from Briefs
- Acceptance Criteria Generation: Writing Testable Deliverable Conditions with AI Support
- Scope Creep Detection: Comparing Change Requests Against the Baseline Using AI

Day 4: Scheduling and Estimation with AI Support

- Analogous vs Parametric Estimation: Where AI Models Improve Duration Forecasts
- Dependency Suggestion: Using AI to Propose Task Links and Sequencing Logic
- Critical Path Change Analysis: Detecting Milestone Slippage Across Schedule Versions
- Resource Levelling Scenarios: Testing Allocation Options with AI-Generated What-If Runs
- Schedule Health Checks: Flagging Missing Logic, Open Ends and Unrealistic Durations

Day 5: Predictive Risk Identification and Scoring

- Qualitative vs AI-Scored Risk Assessment: Comparing Judgement and Data-Based Probability
- Risk Register Generation: Building Risk Statements from Scope, Schedule and Budget
- Copilot in Dynamics 365 Project Operations: Assessing Risks and Suggesting Mitigation
- Early Warning Indicators: Selecting Signals That Predict Delay and Cost Overrun
- Risk Probability Calibration: Testing AI Estimates Against Past Project Outcomes



Day 6: Risk Response Planning and Issue Management

- Mitigation vs Contingency Planning: Selecting Responses for AI-Flagged Risks
- Issue Triage with AI: Classifying and Routing Issues by Impact and Urgency
- Risk Response Ownership: Linking Actions, Triggers and Review Points to Owners
- Monte Carlo Simulation: Modelling Cost and Schedule Uncertainty with Assisted Inputs
- Lessons-Learned Mining: Extracting Recurring Risk Patterns from Closed Project Archives

Day 7: Stakeholder Communication and Status Reporting

- Automated vs Curated Status Reports: Balancing AI Speed with Manager Judgement
- Audience-Specific Summaries: Tailoring One Project Update for Sponsors and Teams
- Meeting Intelligence: Producing Minutes, Decisions and Action Logs from Transcripts
- Stakeholder Sentiment Analysis: Reading Concerns in Surveys and Project Correspondence
- Executive Narrative Writing: Turning Variance Data into Clear Decision Requests

Day 8: AI Dashboards and Performance Analytics

- Descriptive vs Predictive Dashboards: Reporting Past Status or Forecasting Future Results
- Earned Value Indicators: Interpreting Cost and Schedule Performance with AI Commentary
- Schedule Data Integration: Connecting Project Files to AI Agents for Analysis
- Natural-Language Queries: Asking Questions of Project Data Without Writing Formulas
- KPI Anomaly Detection: Spotting Unusual Trends in Cost, Effort and Throughput

Day 9: Governance, Responsible AI and Managing AI Projects

- PMI-CPMAI Framework vs Predictive Lifecycles: Managing Data-Driven AI Projects
- Data Confidentiality Rules: Deciding Which Project Information May Enter AI Tools
- AI Usage Policy for the PMO: Approved Tools, Review Steps and Accountability
- Human-in-the-Loop Review: Assigning Sign-Off for AI-Generated Project Decisions
- Responsible AI Risks: Bias, Transparency and Intellectual Property in Project Work

Day 10: Capstone Practice: Building the AI-Assisted Project Control Pack

- Case Study Plan Build: Applying AI Drafting to a Two-Sector Project Scenario
- Integrated vs Separate Risk and Schedule Reviews: Testing Combined Control on the Case
- Status Report Simulation: Presenting AI-Assisted Updates to a Sponsor Panel
- AI Adoption Roadmap: Sequencing Tools, Policies and Skills for the Delegate's PMO
- AI-Assisted Project Control Pack: Finalising Plan, Risk Register and Reporting Templates



Skills You Will Gain

- Prompt Engineering for Project Artefacts
- AI Output Verification
- Predictive Risk Scoring
- AI-Assisted Schedule Analysis
- Automated Status Reporting
- Project Data Governance
- PMI-CPMAI Framework Phases
- AI Adoption Roadmapping

Why Attend This Course

- From writing every charter, plan and minute by hand to drafting them with tested prompts and reviewing the result
- From risk registers built in a single meeting to registers scored against scope, schedule and budget data
- From status reports assembled late each week to audience-specific updates generated from live project data and checked before release
- From scattered experiments with chat tools to a finished AI-assisted project control pack with clear review and confidentiality rules

Conclusion

Applying AI to project delivery means letting language models and analytics prepare the drafts, forecasts and warnings while the project manager keeps the decisions. The course makes three distinctions clear: generative drafting versus predictive scoring, automated versus curated reporting, and managing a project with AI versus managing a project that builds AI. It suits advanced project managers and PMO professionals who already know the core delivery processes and now need a controlled, accountable way to bring AI tools into them.

Course FAQs

What is AI-driven project management?

AI-driven project management is the practice of using generative AI and predictive analytics to draft plans, score risks and prepare reports, while the project manager verifies each output and remains accountable for decisions taken on the project.

What is the difference between generative AI and predictive analytics in AI-driven project management?

Generative AI writes new text such as charters, risk statements and status summaries from prompts. Predictive analytics calculates likelihoods from past and current data, such as the chance of delay. Most project work uses both, each checked differently.



Which framework does the AI-driven project management course follow for AI projects?

It follows the PMI-CPMAI framework, a data-centred method for projects that build or deploy AI, and compares its phases with predictive lifecycles so delegates can decide when each approach fits.

Is AI-driven project management training suitable for a PMO lead?

Yes. PMO leads use the governance, confidentiality and review material to set an AI usage policy for their office, and the dashboard and reporting labs to decide which AI outputs can enter portfolio reports.

What do delegates produce in the AI-driven project management course?

Delegates produce an AI-assisted project control pack built on a case project: a tested prompt set, a draft plan, a scored risk register, status reporting templates and an adoption roadmap for their own PMO.

