



AI in Project Management: Tools, Automation and Predictive Delivery

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Course Overview:

The AI in Project Management Training Course shows project professionals how to apply artificial intelligence across every stage of the project lifecycle. Participants learn to use generative AI assistants for planning and documentation, predictive analytics for schedule and cost forecasting, and intelligent automation for reporting and PMO workflows. The course balances hands-on practice with governance, covering data quality, ethics, security and change management, so that teams adopt AI in project management responsibly and turn it into measurable delivery results.

Target Audience:

- Project Managers and Project Coordinators
- Program and Portfolio Managers
- PMO Heads and PMO Analysts
- Scrum Masters and Agile Team Leads
- Project Controls, Planning and Scheduling Specialists
- Digital Transformation and Innovation Leads
- Senior Managers sponsoring AI adoption in projects

Targeted Organizational Departments:

- Project Management Offices PMOs
- Program and Portfolio Management Units
- IT and Digital Transformation Departments
- Engineering and Construction Project Teams
- Strategy and Planning Departments
- Operations and Business Excellence Teams

Targeted Industries:

- Government and Public Sector
- Construction, Engineering and Infrastructure
- Oil, Gas and Energy
- IT, Telecom and Technology
- Banking and Financial Services
- Healthcare
- Consulting and Professional Services

Course Offerings:

By the end of this course, participants will be able to:

- Identify where AI adds the most value across project initiation, planning, execution, monitoring and closure.
- Use generative AI and effective prompting to draft charters, WBS, plans, risk registers and status reports.
- Apply predictive analytics to forecast schedule slippage, cost overruns and resource bottlenecks.
- Automate routine PMO reporting, meeting notes and stakeholder communication with AI tools.
- Establish governance for AI use in projects, covering data privacy, ethics, bias and accountability.
- Build a practical roadmap to introduce AI into their team or PMO.

Training Methodology:

This course uses a hands-on, workshop-based approach. Each session combines short expert briefings with live demonstrations of AI tools, guided exercises on realistic project scenarios, group case studies and peer discussion. Participants work on a running project case throughout the week, applying AI at each lifecycle stage, and finish by presenting an AI adoption plan for their own organization. Daily reflection sessions reinforce learning and connect it to the participants' own work.

Course Toolbox:

- Prompt library for project managers charters, WBS, risks, reports
- AI use-case map for the project lifecycle
- Templates for AI-assisted status reports and dashboards
- AI risk and governance checklist for projects
- Case studies of AI adoption in PMOs
- AI adoption roadmap template

Course Agenda:

Day 1: Foundations of AI in Project Management

- **Topic 1:** What AI Is and Is Not: Machine Learning, Generative AI and Automation Explained
- **Topic 2:** The Changing Role of the Project Manager in the AI Era
- **Topic 3:** Mapping AI Use Cases Across the Project Lifecycle
- **Topic 4:** Overview of AI-Enabled Project Management Tools and Platforms
- **Topic 5:** Prompt Engineering Essentials for Project Professionals
- **Topic 6:** Data Readiness: The Foundation of Useful Project AI
- **Reflection & Review:** Identify the top AI opportunities in your own projects.

Day 2: AI for Project Initiation and Planning

- **Topic 1:** Drafting Business Cases and Project Charters with Generative AI
- **Topic 2:** AI-Assisted Scope Definition and WBS Development
- **Topic 3:** Estimating Effort, Duration and Cost Using Historical Data and AI
- **Topic 4:** Intelligent Scheduling and Scenario Planning
- **Topic 5:** Stakeholder Analysis and Communication Planning with AI
- **Topic 6:** Validating and Quality-Checking AI Outputs
- **Reflection & Review:** Build an AI-assisted plan for the course case project.



Day 3: AI for Execution, Monitoring and Control

- **Topic 1:** Predictive Analytics for Schedule and Cost Performance
- **Topic 2:** AI-Driven Risk Identification and Early Warning Signals
- **Topic 3:** Resource Allocation and Capacity Forecasting with AI
- **Topic 4:** Automated Status Reporting and Real-Time Dashboards
- **Topic 5:** AI Meeting Assistants: Minutes, Actions and Decision Logs
- **Topic 6:** Change Control and Issue Management Supported by AI
- **Reflection & Review:** Design an AI-enabled monitoring and reporting cycle.

Day 4: AI in Agile, PMO and Portfolio Management

- **Topic 1:** AI for Backlog Refinement, User Stories and Sprint Planning
- **Topic 2:** AI Support for Scrum Ceremonies and Team Performance
- **Topic 3:** Automating PMO Processes and Governance Workflows
- **Topic 4:** Portfolio Prioritization and Benefits Forecasting with AI
- **Topic 5:** Knowledge Management and Lessons Learned with AI Search
- **Topic 6:** Measuring the Value and ROI of AI in Projects
- **Reflection & Review:** Select AI use cases for your PMO or agile team.

Day 5: Responsible AI Adoption and Implementation Roadmap

- **Topic 1:** AI Ethics, Bias and Accountability in Project Decisions
- **Topic 2:** Data Privacy, Confidentiality and Security When Using AI Tools
- **Topic 3:** AI Governance Frameworks and Organizational Policies
- **Topic 4:** Leading Change: Building AI Skills and Adoption in Project Teams
- **Topic 5:** Building a Phased AI Adoption Roadmap for Your Organization
- **Topic 6:** Capstone Workshop: Presenting an AI-Enabled Project Delivery Plan
- **Reflection & Review:** Consolidate key takeaways and personal action plans.

FAQ:

Do participants need technical or programming knowledge to attend this course?

No. The course is designed for project professionals, not data scientists. A working knowledge of project management principles is enough; all AI tools are introduced step by step.



Should participants bring a laptop?

Yes. A laptop with internet access is recommended so participants can practise with AI tools during the hands-on exercises.

How This Course is Different from Other AI in Project Management Courses:

The AI in Project Management Training Course follows the full project lifecycle rather than treating AI as a stand-alone topic. Participants apply AI to a single running case from initiation to closure, covering both traditional and agile delivery, and leave with a ready-to-use prompt library, templates and an AI adoption roadmap for their own PMO. Strong emphasis on governance, data privacy and change management ensures that AI is adopted safely and delivers lasting value.



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