" PMI Certified Professional in Managing AI (PMI-CPMAI)™ Exam Prep Course"

Course Introduction

The PMI-CPMAI™ (Certified Professional in Managing AI) 3-Day Instructor-Led Program is a comprehensive, end-to-end learning experience designed to equip professionals with the knowledge and practical decision-making skills required to successfully manage AI initiatives using PMI's CPMAI™ methodology. Aligned to the latest PMI-CPMAI Examination Content Outline, the course covers responsible and trustworthy AI practices, business problem framing, data readiness, AI model oversight, and operationalization of AI solutions. Through structured explanations, real-world scenarios, and exam-focused discussions, participants gain a clear understanding of how AI projects differ from traditional initiatives while also building confidence to sit for the PMI-CPMAI certification exam. This program is ideal for professionals seeking both certification readiness and the ability to lead AI-driven initiatives responsibly and effectively.

Day 1 – Responsible AI & Business Understanding (8 Hours)

Module 1: Introduction to PMI-CPMAI™

- Certification overview
- CPMAI methodology overview
- AI project lifecycle
- AI project roles and stakeholders
- Exam structure and ECO mapping

Module 2: Foundations of Artificial Intelligence

- AI, ML, Deep Learning and GenAI
- Seven AI patterns
- AI capabilities and limitations
- AI project success factors
- AI maturity concepts

Module 3: Responsible and Trustworthy AI

(ECO Domain 1 – 15%)

- Ethics and responsible AI
- Fairness and bias mitigation
- Transparency and explainability
- Privacy and security
- Governance and accountability
- Regulatory considerations

Module 4: Identify Business Needs and Opportunities

(ECO Domain 2)

- Problem identification
- Stakeholder analysis
- Persona development
- Use-case discovery
- AI suitability assessment
- AI versus traditional solutions

Day 2 – Business Solutions, Feasibility & Data Understanding (8 Hours)

Module 5: AI Feasibility Assessment

(ECO Domain 2)

- Technical feasibility
- Organizational readiness
- Resource readiness
- Build vs Buy vs Integrate decisions
- Risk assessments
- AI project constraints

Module 6: Business Case & Value Realization

(ECO Domain 2)

- ROI analysis
- Cost-benefit analysis
- Success criteria
- KPI definition
- Value realization planning

- Executive communication

Module 7: Data Understanding for AI Projects

(ECO Domain 3)

- Data requirements identification
- Data ownership
- Data sourcing
- Data governance
- Privacy requirements
- Data compliance

Module 8: Data Readiness Assessment

(ECO Domain 3)

- Data quality dimensions
- Data sufficiency assessment
- Bias detection
- Data maturity evaluation
- Go / No-Go decisions

Day 3 – Data Preparation, Model Development & Evaluation (8 Hours)

Module 9: Managing Data Preparation

(CPMAI Phase III)

- Data cleaning
- Data transformation
- Data labeling
- Feature engineering concepts
- Synthetic data
- Data preparation governance

Module 10: Managing AI Model Development

(ECO Domain 4)

- AI model categories
- Machine learning lifecycle
- Foundation models
- LLM concepts

- GenAI project considerations
- Model selection trade-offs

Module 11: Managing AI Model Evaluation

(ECO Domain 4)

- Evaluation metrics
- Precision, Recall, Accuracy
- Business performance metrics
- Explainability validation
- Robustness testing
- Model approval decisions

Module 12: Trustworthy AI During Development

- Bias testing
- Risk controls
- Human-in-the-loop design
- Governance checkpoints
- Responsible AI validation

Day 4 – Operationalization, Governance & Certification Readiness (8 Hours)

Module 13: Operationalizing AI Solutions

(ECO Domain 5 – 17%)

- Deployment planning
- Production readiness
- Enterprise integration
- Change management
- User adoption
- Operational support

Module 14: AI Governance & Lifecycle Management

(ECO Domain 5)

- Model governance
- MLOps concepts
- Monitoring and observability
- Drift detection

- Retraining strategies
- Incident management

Module 15: Managing Generative AI Initiatives

- LLM governance
- Prompt engineering fundamentals
- AI agents and agentic systems
- Hallucination management
- GenAI risk management
- Organizational controls

Module 16: PMI-CPMAI Exam Readiness

- ECO domain review
- Scenario-based question analysis
- Exam strategy
- Certification roadmap