Certified AI Program Manager (CAIPM)

Category: AI, Data & Analytics | **Vendor:** EC-Council

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format:	Instructor Led - Online
Certification:	Certified AI Program Manager (CAIPM)
Related Exam:	CAIPM

Who Should Attend

AI Program/Project managers, IT & Digital Transformation leaders, Business Strategy Leaders, Product Managers (AI-enabled products), Operations Managers driving AI initiatives

Prerequisites & Entry Requirements

General Prerequisites:

Not beginner-level Prior experience in IT, business, or cybersecurity is expected/recommended

2–3+ years professional experience recommended

Detailed Course Outline

Module 01: AI Fundamentals for Business Adoption

- Define AI and Distinguish it from Automation and Analytics in Business Contexts
  - Artificial Intelligence (AI)
  - Benefits and Limitations of AI
  - Evolution of AI
  - Automation, Analytics, and AI
  - AI as Augmentation vs. Automation
- Identify Core AI Capabilities, Data Dependencies, and Common Failure Modes in Practice
  - How AI Transforms Data into Insights
  - AI Functional Capabilities
  - Data Dependencies
  - Common Failure Modes
  - Misinterpretations of AI Outputs
- Differentiate Between Machine Learning, Deep Learning, Generative AI, and Agent Technologies
  - Types and Categories of AI
  - Types of AI in Business
  - Comparing AI Types for Business
  - What is Machine Learning?
  - Machine Learning Concepts
  - Neural Networks
  - Neural Network Architecture
  - Deep Learning (DL)
  - How DL Overcomes Limitations of ML
  - Working of DL
  - Large Language Models (LLMs)
  - Small vs. Large Language Models
  - Computer Vision
  - Natural Language Processing (NLP)
  - What is Generative AI?
  - Traditional AI vs Generative AI
  - Foundation Models

AI Agents and Copilots
    - Workflow Automation with AI
    - Embedded AI in Enterprise Applications
    - Key Terms for GenAI and Language Models

- Identify Real-world AI Applications and Their Impact Across Industries
    - AI for Transforming Business Operations
    - AI for Business Collaboration
    - AI-Powered User Support
    - AI for Decision Quality Improvement and Business Innovation
    - AI Applications Healthcare and Finance
    - AI Applications in E-commerce and Manufacturing
    - AI Applications in Automotive and Telecommunications
    - AI Applications in Education and Utilities
    - AI Applications in Logistics and Media
    - AI Applications in Agriculture and Security

- Understand AI Project Lifecycle and the Role of MLOps And DataOps In AI Adoption
    - Data Operations (DataOps) in AI Technology Stack
    - AI Development and Operations (MLOps) Lifecycle
    - Integration of DataOps, MLOps, and DevSecOps in AI
    - AI Project Lifecycle Phases and Gates
    - Initiation and Concept Development
    - Data Collection and Preparation
    - Model Development and Experimentation
    - Model Training, Validation, and Testing
    - Deployment and Release Management
    - Monitoring and Performance Tracking
    - Maintenance and Model Retraining Schedules
    - Retirement and Decommissioning Procedures
    - Post-deployment Evaluation and Success Metrics
    - Version Management and Rollback Procedures

Analyze Emerging AI Trends, Technology Drivers, Future Opportunities and Challenges

- Emerging Trends in AI
- Technological Advancements Driving AI
- The Road Ahead: Opportunities and Challenges

Module 02: Organizational Readiness and AI Maturity Assessment

- Assess Organizational AI Readiness Across Strategic, Workforce, Data, and Technology Dimensions
  - Four Dimensions of AI Readiness
  - Strategic Readiness and Leadership Commitment
  - Workforce Readiness and Skill Distribution
  - Data Quality
  - Data Quality Metrics and KPIs
  - Data Readiness and Governance Maturity
  - Data Governance Framework
  - Data Privacy and Compliance for AI
  - Data Architecture for AI Workloads
  - Data Lifecycle Management for AI
  - Data Stewardship Roles and Responsibilities
  - Master Data Management for AI
  - Technology Readiness and Infrastructure
  - Cloud Infrastructure for AI Workloads
  - MLOps Capabilities Assessment
  - AI Security Considerations
  - Integration and API Readiness
  - GPU and Compute Requirements
  - Network and Latency Considerations
  - AI Model Monitoring and Observability
  - AI Disaster Recovery and Business Continuity
- Apply AI Maturity Models to Benchmark Organizational Capabilities and Identify Progression Pathways
  - Five Stages of AI Maturity
  - Stages 1-2: Initial and Emerging
  - Stages 3-4: Defined and Managed
  - Stage 5: Optimized - AI Leadership
  - Centralized vs Decentralized AI Operating Models

Industry and Peer Benchmarking

- Conduct AI Readiness Assessments Using Surveys, Interviews, Heat Maps, and Gap Analysis Techniques
  - Assessment Techniques Overview
  - Surveys and Stakeholder Interviews
  - Capability Heat Maps
  - Gap Analysis Framework
- Identify and Categorize AI Adoption Risks Across Cultural, Process, Technology, and Regulatory Dimensions
  - Four Categories of Adoption Risk
  - Cultural and Behavioral Resistance Risks
  - Process and Operating Model Risks
  - Technology and Regulatory Risks
  - Risk Assessment Framework

Module 03: AI Use Case Identification and Value Prioritization

- Identify Business Problems Suited for AI by Recognizing Key Task Characteristics
  - What Makes a Problem AI-Suitable?
  - Repetitive and Rules-Based Activities
  - Data-Driven Activities
  - High-Volume Processes
  - High-Variability Processes
  - Human Judgment vs. AI Decision Boundaries
  - AI Suitability Decision Framework
- Apply Structured Discovery Methods to Identify and Evaluate AI Opportunities
  - Use Case Discovery Methods
  - Functional Ideation Sessions
  - Cross-Functional Ideation Sessions
  - Process Mapping for AI Discovery
  - Pain-Point Analysis
  - Value Chain Opportunity Identification
- Evaluate AI Use Cases Using Data, Feasibility, Complexity, and Risk Criteria
  - Use Case Qualification Framework
  - Data Availability Assessment
  - Data Quality Requirements
  - Feasibility Assessment
  - Implementation Complexity
  - Risk, Ethics and Compliance
  - Use Case Qualification Scorecard
- Prioritize AI Use Cases Using Value Metrics, ROI Analysis, and Strategic Fit
  - Value and ROI Framework
  - Cost Savings Analysis
  - Revenue Impact Assessment
  - Risk Reduction Value
  - Time-to-Value and Scalability
  - Strategic Alignment Scoring

Value vs. Feasibility Prioritization Matrix

Module 04: AI Strategy and Roadmap Development

- Develop AI Strategy Aligning Vision, Guardrails, and Portfolio Investment Decisions
  - Two Approaches to AI Strategy
  - Business-Driven AI Strategy
  - Technology-Driven AI Strategy
  - AI Vision Statements
  - Strategic Guardrails for AI
  - Portfolio Approach to AI Initiatives
  - Balancing the AI Portfolio
- Build AI Roadmaps Sequencing Initiatives by Dependencies, Value, and Readiness
  - AI Adoption Roadmap Components
  - Short-Term Pilots and POCs
  - Long-Term Transformation Initiatives
  - Dependency Mapping Framework
  - Dependency Analysis Process
  - Sequencing and Phasing AI Initiatives
  - Roadmap Governance and Review
- Design AI Operating Models with Clear Roles, Accountability, and Decision Rights
  - AI Operating Models Overview
  - Center of Excellence (CoE) Model
  - Federated Model
  - Hybrid Model
  - Choosing the Right Model
  - Key AI Roles
  - Decision Rights and RACI
  - Accountability Framework

Module 05: Change Management and AI Enablement

- Understand AI Workforce Impact and Build Trust Through Transparent Change Leadership
  - Understanding AI-Induced Change
  - Workforce Role Evolution
  - Job Redesign Approaches
  - Skill Shifts and Reskilling Requirements
  - Building a Reskilling Program
  - Psychological Impacts of AI
  - Building Trust in AI
- Apply ADKAR and Kotter Frameworks to Lead Successful AI Adoption Initiatives
  - Why Change Management for AI
  - The ADKAR Model
  - Applying ADKAR to AI Programs
  - Kotter's 8-Step Change Model
  - Applying Kotter to AI Programs
  - Sponsorship and Leadership
  - Communication Strategy
  - Managing Resistance
  - Transitioning Users to Approved AI Tools
  - Addressing Fear of Displacement
- Design Role-based AI Training Programs that Build Practical Workforce Capabilities
  - AI Literacy Framework
  - Foundational AI Awareness Training
  - Role-Based AI Enablement
  - Prompt Engineering for Business Users
  - Prompt Troubleshooting Techniques
  - Executive AI Fluency
  - Manager AI Enablement
  - Building an AI Learning Culture
  - Enablement Program Metrics
- Implement Champions, Communities, and Incentives that Sustain AI Adoption Momentum

Why Reinforcement Matters

- AI Champions Program
- Super-User Networks
- Communities of Practice
- Running Effective CoPs
- Incentives and Recognition
- Gamification and Challenges
- Measuring Reinforcement Effectiveness

Module 06: AI Platforms, Tools, and Ecosystem

- Navigate Enterprise AI Landscape Including Generative Platforms, Copilots, and Custom Solution Evaluation
  - The AI Tool Landscape
  - Generative AI Platforms
  - Understanding AI Copilots
  - Major Enterprise Copilots
  - AI Embedded in Enterprise SaaS
  - AI-Embedded SaaS by Category
  - Custom AI Solutions
  - Configurable AI Solutions
  - Custom vs. Configurable Decision Framework
  - Build vs. Buy Considerations
  - Emerging AI Tool Trends
- Apply Structured Frameworks to Evaluate AI Tools for Fit, Security, and Vendor Maturity
  - AI Tool Evaluation Framework
  - Functional Fit Assessment
  - Usability Assessment
  - Security Considerations
  - Privacy and Data Handling
  - Access Controls and Governance
  - Vendor Maturity Assessment
  - Roadmap and Support Evaluation
  - Evaluation Scorecard
  - Evaluation Process
- Integrate AI Tools with Enterprise IT Systems Using Data Pipelines and Access Controls
  - AI Integration Landscape
  - Integration Patterns
  - Data Pipelines for AI
  - RAG Architecture Pattern
  - Interoperability Challenges

Identity and Access Management
- Usage Controls and Policies
- Deployment Models
- Implementation Checklist

Module 07: Governance, Ethics, and Safe AI Adoption

- Establish AI Governance with Defined Roles, Policy Enforcement, and Escalation Handling Processes
  - Why AI Governance Matters
  - AI Governance Framework
  - Governance Roles Across Adoption Lifecycle
  - Key Governance Roles
  - AI Steering Committee
  - Policy Enforcement at Usage Level
  - Adoption-Centric Vendor Due Diligence for AI Usage Authorization
  - Identifying and Governing Unauthorized AI Usage
  - Usage Policies in Practice
  - Legal and Regulatory Clearance for AI Usage Authorization
  - SaaS AI Licensing and Consumption Risk Assessment
  - Escalation Pathways
  - Exception Handling Process
  - Governance Maturity Stages
- Implement AI Usage Incident Handling and Corrective Actions
  - AI Incident Management and Response
  - Common AI Adoption Incidents
  - AI Incident Response Workflow
  - Escalation Pathways
  - User-Level Corrective Actions
  - Post-Incident Governance Updates
- Implement Ethical AI with Bias Awareness, Human Oversight, and Acceptable Use Guidelines
  - Why Ethics Matter in AI Adoption
  - Bias Awareness for Business Users
  - Common Types of AI Bias
  - Human Oversight Principles
  - Decision Accountability
  - Misuse Prevention

- Acceptable Use Guidelines
- Building an Ethical AI Culture

- Navigate AI Risk and Compliance with Regulatory Awareness, Auditability, and Traceability Requirements
  - Risk Landscape for AI Adoption
  - Adoption-Stage vs. Development-Stage Risks
  - Common AI Adoption Risks
  - Risk Exposure from Shadow AI
  - Regulatory Landscape
  - Global AI Regulatory Landscape
  - EU AI Act: Risk-Based Framework
  - US AI Regulatory Framework
  - Sector-Specific AI Regulations
  - Data Privacy Laws and AI
  - GDPR: AI-Relevant Requirements
  - US Privacy Laws Affecting AI
  - Data Security Standards and Frameworks
  - ISO/IEC 42001:2023
  - ISO 42001 Structure and Clauses
  - ISO 42001 Implementation and Certification
  - Government Data Governance for AI
  - Publicly Procured Data and AI Use
  - FedRAMP and FISMA for AI Systems
  - NIST SP 800-218A: Secure GenAI Development
  - SP 800-218A: Key GenAI Security Practices
  - DoDI 8510.01: Risk Management Framework
  - RMF 7-Step Process
  - RMF for AI/ML Systems
  - Major Laws, Frameworks and Standards Reference
  - Internal Policy Requirements

Change Readiness Validation
    - Traceability Expectations
    - AI Compliance Checklist
    - ML Blind Spots and Edge Cases
    - Impacts of Blind Spots and Edge Cases
    - Mitigating Blind Spots and Edge Cases
- Apply DoD Ethical AI Principles and Responsible AI Practices in Mission Critical Defense Contexts
    - The Five DoD AI Ethical Principles
    - Responsible and Equitable
    - Traceable and Reliable
    - Governable - Human Control
    - Responsible AI (RAI) Framework
    - Analyzing Mission Priorities for AI
    - RAI Implementation Checklist
    - Staying Current on RAI Advancements

Module 08: AI Pilot Execution and Scaled Deployment

- Design AI Pilots with Clear Scope, Success Metrics, and Governance Risk Controls
  - Why Pilots Matter
  - Defining Pilot Scope
  - Setting Pilot Boundaries
  - Success Metrics for Pilots
  - Exit Criteria
  - Pilot-to-Authorization Decision Gates
  - Adoption Readiness Sign-Off Checklist
  - Governance Controls During Pilots
  - Risk Controls During Pilots
  - Pilot Planning Checklist
- Execute AI Deployments through Phased Rollouts, Communication Plans, and Readiness Checkpoints
  - From Pilot to Production
  - Phased Rollout Strategies
  - Rollout Sequencing Options
  - Communication Planning
  - Training Alignment
  - Change Readiness Validation
  - Support Model for Rollout
  - Rollout Planning Checklist
- Scale AI Adoption by Capturing Lessons and Mitigating Enterprise-wide Expansion Risks
  - Capturing Lessons Learned
  - Applying Pilot Insights
  - Scaling Across Teams
  - Scaling Across Regions
  - Adoption Risks at Scale
  - Risk Mitigation Strategies
  - Continuous Optimization
  - Scaling Success Indicators

Module 09: Measuring AI Adoption Impact and Value

- Measure AI Adoption Effectiveness Through Engagement Metrics, Skill Progression, and Behavioral Signals
  - Why Measure Adoption?
  - Adoption Metrics Framework
  - Adoption Rate Calculations
  - Engagement Depth Funnel
  - Skill Progression Indicators
  - Proficiency Assessment Matrix
  - Behavioral Adoption Signals
  - Metrics for Shadow AI Reduction
  - Leading vs Lagging Indicators
  - Building an Adoption Dashboard
  - Common Measurement Pitfalls
- Quantify AI Business Value Through Productivity Metrics and Value Realization Tracking
  - AI Cost Inputs in Adoption Measurement
  - AI Balancing Adoption Growth and Cost Efficiency
  - Identifying Overuse and Underuse Through Adoption Metrics
  - Prompt Efficiency as a Cost and Adoption Signal
  - Visualizing AI Cost and Adoption Through Dashboards
  - Cost Ownership and Accountability in AI Adoption
  - The Value Equation
  - Productivity Metrics
  - Efficiency Metrics
  - Quality Metrics
  - Financial vs Non-Financial Benefits
  - Calculating ROI
  - Value Realization Tracking
  - Building Value Stories
- Communicate AI Value Through Executive Dashboards, Stakeholder Reports, and Feedback Loops
  - The Reporting Challenge

Stakeholder Communication Matrix

- Executive Dashboard Design
- Report Types and Cadence
- Data Visualization Tips
- Feedback Collection Methods
- Continuous Improvement Loop
- Acting on Feedback

Module 10: Sustaining AI Transformation

- Transition AI Pilots into Sustainable, Embedded Operations that Deliver Long-term Business Value
  - The Embedding Challenge
  - Operational Support Model for Embedded AI Adoption
  - Support Metrics for Sustaining Embedded AI
  - AI-Enabled Process Redesign
  - Process Redesign Framework
  - Human-AI Collaboration Models
  - The Collaboration Spectrum
  - Task Allocation Matrix
  - Long-Term Workflow Integration
  - Integration Maturity Staircase
  - Embedding Success Factors
  - Governance for Embedded AI
  - Common Embedding Pitfalls
- Establish Processes to Continuously Improve AI Adoption and Adapt to Evolving Technology
  - The AI Landscape is Always Changing
  - Adoption Maturity Model
  - Maturity Assessment Dimensions
  - Responding to New AI Capabilities
  - Capability Evaluation Matrix
  - Managing Model, Tool, and Vendor Changes
  - Change Impact Assessment
  - Vendor Risk Management
  - Vendor Evaluation Scorecard
  - Continuous Improvement Cycle
  - Feedback Collection Mechanisms
  - Sustaining User Trust Through Continuous Adoption
  - Building a Learning Organization
  - Common Adaptation Pitfalls
- Develop Leadership Capabilities and Cultural Practices that Sustain AI Transformation Long-term

Building an AI-First Mindset
    - Leadership Behaviors That Drive AI Culture
    - AI Talent Development Framework
    - Development Programs by Tier
    - AI Talent Retention Strategies
    - The AI Value Flywheel
    - AI Governance for Long-Term Success
    - Measuring Long-Term AI Success
    - Success Indicators by Timeframe
    - Common Culture Pitfalls and Fixes
- Apply Human-centered Design Principles to Create Usable, Transparent, and Trustworthy AI Systems
    - What Is Human-Centered AI Design?
    - Human-Centered Design Principles for AI
    - User Experience Considerations for AI
    - AI Transparency and Explainability
    - Explainability Techniques
    - Building User Trust in AI
    - Human-in-the-Loop Design Patterns
    - Designing for AI Errors
    - Accessibility and Inclusion in AI
    - Ethical AI Design Considerations
    - Human-Centered AI Design Process
    - Common Human-Centered Design Pitfalls

□□ Certification Path

Certified AI Program Manager (CAIPM)

Exam: CAIPM

Frequently Asked Questions

Q: What delivery options are available for Certified AI Program Manager (CAIPM)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: What certification does this course prepare me for?

The Certified AI Program Manager (CAIPM) course helps prepare you for the Certified AI Program Manager (CAIPM) certification path.

Q: Which exam does this course prepare me for?

This course prepares you for the CAIPM official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 3-day Certified AI Program Manager (CAIPM) course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Certified AI Program Manager (CAIPM) training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Certified AI Program Manager (CAIPM)?

Yes, we provide corporate training, dedicated training, and closed classes for Certified AI Program Manager (CAIPM). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for Certified AI Program Manager (CAIPM)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Certified AI Program Manager (CAIPM) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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