

Training: EC-Council
CAIPM - Certified AI Program Manager

EC-Council
Building A Culture Of Security

TRAINING GOALS:



Certified AI Program Manager (C|AIPM) credential is designed to transform experienced professionals into enterprise-ready AI program managers. This program bridges the gap between technical AI knowledge and business execution, equipping professionals to align AI with strategy, people, governance, risk management, and measurable ROI.

C|AIPM prepares you to:

- Assess AI readiness across teams and processes
- Prioritize AI use cases tied to business outcomes
- Design adoption and rollout roadmaps
- Coordinate delivery across cross-functional teams
- Implement governance, Responsible AI, and security controls
- Track performance and ROI to prove value

Certified AI Program Manager (C|AIPM) is not about building models. It is about making AI work on an enterprise scale predictably, securely, and sustainably.

Essential Skills You Will Gain with C|AIPM:

- Strategize and Lead Adoption
 - Translate business goals into AI roadmaps
 - Define KPIs, measure ROI, and drive change
- Operationalize AI
 - Understand MLOps and life cycle practices needed for production
 - Plan scalable AI architectures and operational workflows
- Secure and Govern AI
 - Apply Responsible AI and risk governance
 - Integrate AI-specific security and compliance Practices
- Harness Generative AI
 - Use GenAI safely and effectively for business outcomes
 - Apply prompt engineering methods to improve output quality
- Deploy and Scale
 - Execute real-world rollouts across industries (e.g., finance, healthcare, manufacturing)
 - Drive adoption, usability, and sustained performance

Who is C|AIPM Ideal For:

- Program and Technology Leadership
 - Program managers leading AI initiatives
 - Technology strategists and system integrators enabling AI missions
- Policy, Risk, and Compliance
 - Policymakers overseeing responsible AI adoption
 - Compliance officers governing AI operational risk
- Business and Operations
 - Business leaders aligning AI investments to ROI
 - Operations managers driving AI-enabled transformation
- Security and IT Operations
 - Cybersecurity professionals involved in AI adoption and transformation
 - IT administrators supporting AI integration and deployment
- Data and Analytics
 - Data analysts transitioning into AI operations roles
 - Data engineers supporting AI deployment pipelines

Each participant in an authorized training CAIPM - Certified AI Program Manager held in Compendium

CE will receive a free CAIPM certification exam voucher.

CONSPECT:

- Module 1 - 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 2 - 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 3 - 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 4 - 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 5 - 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 6 - 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 7 - 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 8 - 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 9 - 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

REQUIREMENTS:

Students should have at least two years of experience in project management or IT leadership and a basic understanding of the software development life cycle. No prior coding or programming skills are required, as the focus is on strategic AI alignment and risk assessment.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by EC-Council (course completion). This course will help prepare you also for the CAIPM certification exam.

CAIPM v1 exam details:

- Exam Code : 312-41
- Number of Questions : 100
- Duration : 3 hours
- Availability: ECC Exam Portal
- Test Format : Multiple Choice Question (MCQs)

Each participant in an authorized training CAIPM - Certified AI Program Manager held in Compendium CE will receive a free CAIPM certification exam voucher.

TRAINER:

Certified EC-Council Instructor (CEI)

ADDITIONAL INFORMATION:

The training materials include official EC-Council electronic courseware, 180-day access to iLabs, and an exam voucher.