

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 22989 — AI Concepts and Terminology

ISO Certification Programme



LAPT — London Academy of Professional Training

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Reference IIT-AII-22989 • ISO IT & Related Technologies

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AT A GLANCE

REFERENCE	IIT-AII-22989
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

AI Concepts Overview

5 chapters · 30 classes 105 marks

• 1 Fundamentals of Artificial Intelligence: Definitions and Scope — 6 classes

› 1.1 Define Key AI Concepts and Terminology

› 1.2 Explore the Historical Development of AI

› 1.3 Differentiate Between Weak and Strong AI

› 1.4 Identify Major AI Categories and Applications

› 1.5 Examine Ethical Considerations in AI Development

› 1.6 Assess the Future Trends and Impacts of AI

• 2 Key Concepts and Terminology in AI — 6 classes

› 2.1 Define and Distinguish Key AI Terminology

› 2.2 Explore the Evolution of Artificial Intelligence Concepts

› 2.3 Identify Different Types of AI Systems and Their Applications

› 2.4 Analyze the Importance of Data in AI Development

› 2.5 Discuss Ethical Considerations in AI Implementation

› 2.6 Apply AI Terminology in Real-World Case Studies

• 3 AI Frameworks and Models: Structure and Functionality — 6 classes

› 3.1 Define Key AI Frameworks and Their Purposes

› 3.2 Explore Common AI Models and Their Applications

› 3.3 Analyze the Structure of AI Frameworks

› 3.4 Compare Functionalities of Different AI Models

› 3.5 Evaluate the Impact of AI Frameworks on Decision Making

› 3.6 Apply AI Concepts to Real-World Scenarios

• 4 Ethics and Governance in Artificial Intelligence — 6 classes

› 4.1 Define Key Ethical Principles in AI

› 4.2 Identify Governance Frameworks for AI Implementation

› 4.3 Analyze Case Studies on Ethical AI Practices

› 4.4 Explore AI Bias and Its Ethical Implications

› 4.5 Discuss Accountability in AI Decision-Making

› 4.6 Develop a Personal Governance Strategy for Ethical AI Use

• 5 Future Trends in AI: Innovations and Challenges — 6 classes

› 5.1 Explore Emerging AI Technologies Shaping the Future

› 5.2 Analyze the Role of AI in Transforming Industries

› 5.3 Identify Ethical Challenges in AI Development

› 5.4 Evaluate the Impacts of AI on Workforce Dynamics

› 5.5 Discuss Regulatory and Legal Considerations for AI

› 5.6 Develop Strategies for Responsible AI Innovation

• 1 Fundamentals of AI in Industrial Applications — 6 classes

- › 1.1 Define Key AI Terminology in Industrial Context
- › 1.2 Explore Historical Milestones in AI Development
- › 1.3 Identify Core Components of AI Systems in Industry
- › 1.4 Analyze Case Studies of AI Implementation in Manufacturing
- › 1.5 Evaluate Ethical Considerations in AI Applications
- › 1.6 Predict Future Trends of AI in Industrial Applications

• 2 Machine Learning Techniques for Industry — 6 classes

- › 2.1 Define Key Machine Learning Concepts for Industrial Applications
- › 2.2 Explore Supervised Learning Techniques in Industry
- › 2.3 Analyze Unsupervised Learning Methods and Their Use Cases
- › 2.4 Investigate Reinforcement Learning Applications in Real-World Scenarios
- › 2.5 Assess the Role of Neural Networks in Industrial Machine Learning
- › 2.6 Evaluate Ethical Considerations for Machine Learning in Industry

• 3 AI-Driven Data Analytics in Manufacturing — 6 classes

- › 3.1 Explore the Basics of AI-Driven Data Analytics in Manufacturing
- › 3.2 Identify Key Technologies Enabling AI Data Analytics
- › 3.3 Analyze Real-World Case Studies of AI in Manufacturing
- › 3.4 Demonstrate the Role of Machine Learning in Data Processing
- › 3.5 Assess the Impact of AI Analytics on Manufacturing Efficiency
- › 3.6 Develop a Basic AI Implementation Strategy for Data Analytics

• 4 Automation and Robotics in AI Applications — 6 classes

- › 4.1 Explore the Fundamentals of Automation in AI Applications
- › 4.2 Analyze Robotics Integration in Modern Industries
- › 4.3 Identify Key Benefits of AI-Driven Automation Solutions
- › 4.4 Evaluate Real-World Case Studies of AI and Robotics
- › 4.5 Design a Simple Workflow Utilizing AI Automation
- › 4.6 Discuss Future Trends in AI, Automation, and Robotics

• 5 Ethical Implications and Future Trends of AI in Industry — 6 classes

- › 5.1 Identify Ethical Considerations in AI Development
- › 5.2 Analyze Case Studies on AI Misuse in Industry
- › 5.3 Discuss the Role of Transparency in AI Technologies
- › 5.4 Evaluate the Impact of AI on Employment and Workforce Dynamics
- › 5.5 Explore Future Trends in Ethical AI Implementation
- › 5.6 Propose Strategies for Developing Ethical AI Frameworks

• 1 Understanding the Fundamentals of AI Impact Evaluation — 6 classes

- › 1.1 Define Key AI Impact Evaluation Concepts
- › 1.2 Identify Stakeholders in AI Impact Assessment
- › 1.3 Explore Methods for Measuring AI Influence
- › 1.4 Analyze Case Studies of AI Implementation Outcomes
- › 1.5 Assess Ethical Considerations in AI Impact Evaluation
- › 1.6 Develop a Framework for Evaluating AI Projects

• 2 Frameworks and Methodologies for Evaluating AI — 6 classes

- › 2.1 Define Key Concepts in Evaluating AI Impact
- › 2.2 Explore Different Frameworks for AI Evaluation
- › 2.3 Analyze the Importance of Metrics in AI Evaluation
- › 2.4 Compare Qualitative and Quantitative Evaluation Methodologies
- › 2.5 Implement a Case Study Approach to AI Evaluation
- › 2.6 Assess the Future Implications of AI Evaluation Frameworks

• 3 Quantitative Metrics for AI Impact Assessment — 6 classes

- › 3.1 Define Key Quantitative Metrics for AI Impact
- › 3.2 Analyze Data Sources for AI Performance Metrics
- › 3.3 Calculate ROI for AI Implementations
- › 3.4 Evaluate Accuracy Measures in AI Solutions
- › 3.5 Interpret and Report Quantitative Findings
- › 3.6 Apply Metrics to Real-World AI Case Studies

• 4 Qualitative Approaches to Measuring AI Value — 6 classes

- › 4.1 Define Qualitative Metrics for AI Evaluation
- › 4.2 Analyze Stakeholder Perspectives on AI Value
- › 4.3 Explore Case Studies Demonstrating Qualitative AI Impact
- › 4.4 Develop Surveys to Collect Qualitative Feedback on AI Use
- › 4.5 Synthesize Qualitative Data into Actionable Insights
- › 4.6 Present Findings: Communicating Qualitative AI Value to Leadership

• 5 Synthesizing Insights and Making Informed AI Decisions — 6 classes

- › 5.1 Identify Key Metrics for Evaluating AI Impact
- › 5.2 Analyze Case Studies of AI Implementation Outcomes
- › 5.3 Compare AI Solutions Based on Effectiveness and Efficiency
- › 5.4 Synthesize Data Insights to Inform AI Strategy
- › 5.5 Assess Ethical Considerations in AI Decision-Making
- › 5.6 Develop an Action Plan for Implementing AI Insights

• 1 Emerging AI Technologies and Their Potential Impact — 6 classes

- › 1.1 Explore Key Emerging AI Technologies
- › 1.2 Analyze Current Trends in AI Development
- › 1.3 Evaluate the Societal Impacts of AI Advancements
- › 1.4 Discuss Ethical Considerations in Emerging AI
- › 1.5 Identify Future Applications of AI in Various Industries
- › 1.6 Develop Strategies for Responsible AI Implementation

• 2 Ethical Considerations in Future AI Applications — 6 classes

- › 2.1 Identify Ethical Principles in AI Development
- › 2.2 Analyze Case Studies of AI Ethical Dilemmas
- › 2.3 Discuss the Role of Transparency in AI Systems
- › 2.4 Evaluate the Impact of Bias in AI Applications
- › 2.5 Explore Regulations Surrounding AI Ethics
- › 2.6 Propose Solutions for Ethical AI Implementation

• 3 AI and the Workforce: Shifting Roles and Skills — 6 classes

- › 3.1 Explore the Impact of AI on Traditional Job Roles
- › 3.2 Identify Emerging Skills Required in an AI-Driven Workforce
- › 3.3 Analyze Case Studies of AI Integration in Various Industries
- › 3.4 Evaluate the Challenges of Workforce Transition in the Age of AI
- › 3.5 Develop Strategies for Upskilling and Reskilling Employees
- › 3.6 Create a Personal Action Plan for Adapting to AI Innovations

• 4 The Role of AI in Sustainability and Environmental Solutions — 6 classes

- › 4.1 Explore AI-Driven Innovations in Environmental Monitoring
- › 4.2 Analyze Renewable Energy Solutions Enhanced by AI
- › 4.3 Examine Case Studies of AI in Waste Management
- › 4.4 Assess the Impact of AI on Climate Change Mitigation
- › 4.5 Investigate AI's Role in Sustainable Agriculture Practices
- › 4.6 Develop an Action Plan for Implementing AI in Local Sustainability Efforts

• 5 Predicting the Future: Trends Influencing AI Development — 6 classes

- › 5.1 Explore Current Technological Trends Shaping AI
- › 5.2 Analyze Societal Impacts on AI Development
- › 5.3 Examine Economic Factors Driving AI Innovation
- › 5.4 Identify Ethical Considerations in AI Advancements
- › 5.5 Predict Future AI Trends Through Case Studies
- › 5.6 Propose Strategies for Adapting to AI Innovations

• 1 Understanding the Foundations of AI and Its Strategic Importance — 6 classes

- › 1.1 Define Artificial Intelligence and Its Core Components
- › 1.2 Explore the Historical Evolution of AI Technologies
- › 1.3 Identify the Key AI Concepts and Terminology
- › 1.4 Discuss the Strategic Importance of AI in Business
- › 1.5 Analyze Real-World Case Studies of AI Implementation
- › 1.6 Develop a Strategic Framework for AI Integration in Leadership

• 2 Key AI Technologies and Their Applications in Business — 6 classes

- › 2.1 Identify Key AI Technologies Transforming Business Operations
- › 2.2 Analyze Machine Learning Applications in Strategic Decision-Making
- › 2.3 Explore Natural Language Processing Uses in Customer Engagement
- › 2.4 Evaluate Computer Vision Solutions for Operational Efficiency
- › 2.5 Assess AI-driven Automation Tools for Enhancing Productivity
- › 2.6 Implement AI Technologies to Drive Innovative Business Strategies

• 3 Ethics and Governance in AI Leadership — 6 classes

- › 3.1 Define Ethical Frameworks in AI Leadership
- › 3.2 Analyze Key Ethical Challenges in AI Implementation
- › 3.3 Discuss the Importance of Transparency in AI Governance
- › 3.4 Examine Stakeholder Roles in AI Ethical Practices
- › 3.5 Develop Strategies for Ethical Decision-Making in AI
- › 3.6 Evaluate Real-World Case Studies of AI Governance

• 4 Developing a Strategic AI Implementation Plan — 6 classes

- › 4.1 Define Strategic Goals for AI Implementation
- › 4.2 Identify Key Stakeholders in AI Strategy
- › 4.3 Assess Current AI Capabilities and Gaps
- › 4.4 Develop a Roadmap for AI Integration
- › 4.5 Create Metrics for Evaluating AI Success
- › 4.6 Present the Strategic AI Implementation Plan

• 5 Measuring Success and Continuous Improvement in AI Initiatives — 6 classes

- › 5.1 Define Key Performance Indicators (KPIs) for AI Success
- › 5.2 Develop a Framework for Measuring AI Impact
- › 5.3 Analyze Data Collection Methods for Continuous Improvement
- › 5.4 Implement Feedback Loops in AI Initiatives
- › 5.5 Evaluate Case Studies on Successful AI Metrics
- › 5.6 Create an Action Plan for Sustaining AI Excellence

• 1 Understanding AI Terminology: Foundations and Definitions — 6

classes

- › 1.1 Define Key AI Terminology for Effective Communication
- › 1.2 Explore the Importance of Standardized AI Definitions
- › 1.3 Identify Core Concepts in AI and Their Applications
- › 1.4 Analyze the Role of AI Terminology in Leadership Contexts
- › 1.5 Compare AI Terminology Across Different Standards
- › 1.6 Develop a Glossary of Essential AI Terms for Practical Use

• 2 ISO Standards for AI: An Overview of Key Frameworks — 6 classes

- › 2.1 Define and Explain Key ISO AI Standards
- › 2.2 Identify Major Frameworks in ISO 22989
- › 2.3 Compare ISO 22989 with Other AI Standards
- › 2.4 Analyze the Importance of Compliance in AI Development
- › 2.5 Explore Case Studies Implementing ISO AI Standards
- › 2.6 Develop a Framework for Implementing ISO 22989 in Organisations

• 3 Interpreting ISO 22989: Key Concepts and Terminology — 6 classes

- › 3.1 Define Key AI Terminology in ISO 22989
- › 3.2 Explain the Importance of ISO Standards in AI Development
- › 3.3 Identify Core Concepts of AI Governance in ISO 22989
- › 3.4 Analyze the Role of Ethical Considerations in AI Standards
- › 3.5 Illustrate the Application of ISO 22989 in Real-World Scenarios
- › 3.6 Evaluate Compliance Strategies for ISO 22989 Implementation

• 4 Implementing AI Terminology in Organizational Contexts — 6

classes

- › 4.1 Define Key AI Terminology for Effective Communication
- › 4.2 Explore Current AI Standards and Their Impact on Organizations
- › 4.3 Analyze the Relevance of ISO 22989 in Business Practices
- › 4.4 Identify Common Misconceptions in AI Terminology
- › 4.5 Develop a Glossary of AI Terms for Organizational Use
- › 4.6 Create an Implementation Plan for AI Terminology in Your Organization

• 5 Evaluating the Impact of Terminology on AI Strategy Development — 6 classes

- › 5.1 Define Key Terminology in AI Strategy Development
- › 5.2 Analyze the Relationship Between Terminology and AI Outcomes
- › 5.3 Evaluate Current Standards in AI Terminology
- › 5.4 Assess the Impact of Terminology on Stakeholder Engagement
- › 5.5 Create a Glossary of Essential AI Terms for Strategy Development
- › 5.6 Implement Terminology Best Practices in AI Strategies