

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 34501 — Automated Vehicles Test Objectives

ISO Certification Programme



LAPT — London Academy of Professional Training

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Reference TR-SMV-34501 • ISO Transport

UKPRN 10067351 • Registered in England and Wales, company 4984798

AT A GLANCE

REFERENCE	TR-SMV-34501
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1	Evaluation of Testing Outcomes 0 chapters65 marks
2	ISO 34501 Standards Overview 5 chapters · 30 classes85 marks • 1 Understanding ISO 34501: Goals and Purpose — 6 classes › 1.1 Define ISO 34501 and Its Importance in Automated Vehicle Testing › 1.2 Identify Key Objectives of ISO 34501 Standards › 1.3 Explore the Scope and Applicability of ISO 34501 › 1.4 Examine the Benefits of Compliance with ISO 34501 › 1.5 Analyze the Relationship Between ISO 34501 and Regulatory Frameworks › 1.6 Discuss Future Implications of ISO 34501 on Automated Vehicle Development • 2 Key Definitions and Concepts in ISO 34501 — 6 classes › 2.1 Define Key Terms in ISO 34501 › 2.2 Explain the Importance of Automated Vehicles Standards › 2.3 Identify Key Stakeholders in Automated Vehicle Testing › 2.4 Describe the Scope of ISO 34501 Standards › 2.5 Analyze the Core Objectives of ISO 34501 › 2.6 Apply ISO 34501 Definitions to Real-World Scenarios • 3 Structure and Components of ISO 34501 — 6 classes › 3.1 Identify Key Components of ISO 34501 Structure › 3.2 Explain the Purpose of ISO 34501 Standards › 3.3 Analyze the Role of Automated Vehicles in ISO 34501 › 3.4 Discuss Compliance Requirements for ISO 34501 Certification › 3.5 Evaluate the Impact of ISO 34501 on Vehicle Safety Standards › 3.6 Apply ISO 34501 Standards to a Case Study in Automated Vehicles • 4 Assessment and Compliance with ISO 34501 — 6 classes › 4.1 Identify Key Components of ISO 34501 Standards › 4.2 Understand the Importance of Compliance in Automated Vehicles › 4.3 Examine Assessment Criteria for ISO 34501 Certification › 4.4 Analyze Common Challenges in ISO 34501 Compliance › 4.5 Develop Strategies for Effective Compliance Assessments › 4.6 Evaluate Case Studies on ISO 34501 Implementation • 5 Future Trends and Developments in ISO 34501 Applications — 6 classes › 5.1 Explore Emerging Trends in Automated Vehicle Technologies › 5.2 Analyze Global Standards Influencing ISO 34501 › 5.3 Assess the Impact of Regulatory Changes on Automated Vehicle Testing › 5.4 Investigate the Role of Stakeholders in ISO 34501 Development › 5.5 Evaluate Case Studies of ISO 34501 Implementations › 5.6 Develop Strategic Recommendations for Future Applications of ISO 34501

• 1 Fundamentals of Automated Vehicle Testing — 6 classes

- › 1.1 Define Key Terminology in Automated Vehicle Testing
- › 1.2 Identify Essential Testing Methodologies for Automated Vehicles
- › 1.3 Explore Regulatory Standards Impacting Automated Vehicle Testing
- › 1.4 Analyze Case Studies in Automated Vehicle Test Scenarios
- › 1.5 Evaluate Safety Metrics for Automated Vehicle Performance
- › 1.6 Develop a Test Plan for Automated Vehicle Validation

• 2 Framework for Developing Test Objectives — 6 classes

- › 2.1 Analyze the Importance of Clear Test Objectives in Automated Vehicle Testing
- › 2.2 Identify Key Components of a Comprehensive Testing Framework
- › 2.3 Develop Measurable Criteria for Test Objectives in Automated Vehicles
- › 2.4 Construct Scenarios to Evaluate Automated Vehicle Functions
- › 2.5 Implement Best Practices for Writing Effective Test Objectives
- › 2.6 Review and Refine Test Objectives Based on Testing Outcomes

• 3 Designing Test Scenarios for Automated Vehicles — 6 classes

- › 3.1 Identify Key Parameters for Test Scenario Design
- › 3.2 Analyze Environmental Factors Impacting Automated Vehicle Performance
- › 3.3 Develop Realistic User Interaction Scenarios
- › 3.4 Create Safety-Critical Test Cases for Automated Systems
- › 3.5 Integrate Regulatory Standards into Test Design
- › 3.6 Evaluate Test Scenario Effectiveness Through Simulation

• 4 Data Collection and Analysis in Testing — 6 classes

- › 4.1 Identify Key Data Types for Automated Vehicle Testing
- › 4.2 Explore Methods of Data Collection in Automated Vehicle Testing
- › 4.3 Analyze Data Quality and Reliability in Test Results
- › 4.4 Apply Statistical Techniques to Interpret Testing Data
- › 4.5 Evaluate Data Analysis Tools for Automated Vehicle Testing
- › 4.6 Develop a Comprehensive Data Reporting Strategy

• 5 Validation and Verification of Testing Outcomes