

### AI Coordinator – TÜV

OEM: TÜV SÜD • Code: 06-63-26-0004



#### COURSE DESCRIPTION

Artificial Intelligence is increasingly embedded into products, services, and decision-making processes across all industries. While AI offers enormous potential for efficiency, innovation, and competitiveness, it also introduces unique risks related to transparency, bias, safety, security, and regulatory compliance. Traditional IT governance frameworks are often insufficient to address these challenges, particularly due to the “black box” nature of many AI systems. The AI Coordinator – TÜV training introduces a risk-based AI quality framework designed to support the development, deployment, and operation of trustworthy AI. The framework is grounded in current and emerging international standards and regulations, including ISO/IEC 42001, and reflects cross-industry best practices. Participants learn how organizations can define and achieve the required maturity level to manage AI quality, mitigate risks, and sustain reliable data and AI pipelines. The course covers both organizational and technical dimensions of AI quality, ensuring a holistic understanding of AI governance. On the organizational level, the training addresses AI strategy, governance structures, regulatory expectations, organizational readiness, and skills requirements. Participants learn how to assess their organization’s current AI maturity and develop a structured roadmap for AI quality adoption. On the technical level, the course explores AI reference architectures, data and model lifecycles, validation and verification methods, explainability, and cybersecurity considerations. AI risks such as adversarial attacks, data quality issues, and unintended model behavior are discussed in depth. A detailed case study runs throughout the training, enabling participants to apply the AI quality framework in practice—evaluating risks, defining controls, and planning an AI quality management system. Upon completion, participants are well prepared to take on the role of AI Coordinator and support responsible, compliant, and high-quality AI initiatives within their organization.

#### AUDIENCE PROFILE

- This course is intended for:
- Managing directors and senior leaders
- IT managers and technology decision-makers
- AI and software engineers
- Data analysts and data scientists
- Compliance, risk, and quality managers
- Consultants and AI experts across all industries

#### PREREQUISITES

- No formal prerequisites required
- Basic knowledge of common machine learning algorithms is recommended

## COURSE OBJECTIVES

**By the end of this course, participants will be able to:**

- Explain key AI risks and quality challenges
- Apply the six pillars of AI quality: safety, security, legal compliance, ethics, performance, and sustainability
- Conduct AI risk and maturity assessments
- Understand and apply ISO/IEC 42001 requirements
- Evaluate AI architectures, data pipelines, and model lifecycles
- Plan validation, verification, and explainability measures
- Address AI security threats and mitigation strategies
- Develop an AI quality adoption roadmap for their organization

## COURSE OUTLINE

### Module 1: Introduction: Why is AI quality so important?

- Definition and importance of AI for companies
- Challenges of AI adoption
- Risks of AI applications

### Module 2: The risk-based framework for AI quality

- The 6 pillars of AI quality: security, cybersecurity, compliance, ethics, performance, sustainability
- Risk assessment
- AI Quality Maturity Analysis

### Module 3: AI readiness of the organization

- ISO/IEC 42001 Overview
- Expectations of the context
- Compliance: Legal requirements, standards and ongoing regulatory activities
- AI Strategy
- Required skills and competencies
- Application example: Maturity profile of a company

### Module 4: AI Systems

- AI Reference Architecture Core Areas (Data Quality, AI Models, AI Training)
- Integration (Execution, Control Flow)
- Monitoring (Testing and Control)
- Infrastructure
- Application example: Maturity analysis of an AI system

## Module 5: AI Processes

- AI & Data Lifecycle – Phases and Quality
- Interaction between AI and data lifecycle
- Risk management over the entire life cycle
- Validation and Verification: Methods for AI Explainability
- Cybersecurity – AI Security, Attacks and Defense
- Application example: Maturity profile of AI processes

## Module 6: Planning an AI Quality Management System

- Roadmap to launch

### DELIVERY NOTE

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- Instructor-led training in a virtual classroom
- Expert-led presentations and guided discussions
- Practical examples and real-world use cases
- Interactive exercises and group work
- Comprehensive case study throughout the course
- A self-contained private room or office free from interruptions
- The entire room and workspace can be shown via webcam upon request
- No materials present except those explicitly allowed
- No other electronic devices powered on nearby
- A quiet environment free of background noise
- Adequate lighting equivalent to daylight
- Full compliance with all online proctoring instructions