

Course No. 1908

Artificial Intelligence in Insurance Training Course

**INSURTECH & ARTIFICIAL INTELLIGENCE
INSURANCE & RISK MANAGEMENT**

DURATION

5 Days

DELIVERY

Classroom



Course Overview

This advanced training course provides insurance professionals with a comprehensive understanding of how Artificial Intelligence can transform underwriting, claims management, pricing, customer service, risk management, fraud detection, and insurance operations. It focuses on practical business applications that enable insurance organizations to improve decision-making, operational efficiency, risk assessment, and customer experience.

The course examines key Artificial Intelligence technologies relevant to insurance, including machine learning, predictive analytics, natural language processing, intelligent automation, computer vision, and AI-powered decision-support systems. Participants will explore how these technologies can be integrated into existing insurance processes and used to address complex operational and business challenges.

Particular attention is given to AI applications in underwriting and claims. Participants will examine how AI can support risk classification, policy assessment, pricing analysis, claims triage, fraud detection, document processing, loss prediction, and customer interactions. The course also addresses how AI can complement professional judgment rather than replace appropriate human decision-making.

The course further addresses AI governance, data quality, model risk, explainability, bias, privacy, cybersecurity, regulatory considerations, and responsible AI. Through practical case studies and implementation exercises, participants will learn how to evaluate AI opportunities, prioritize initiatives, establish appropriate controls, measure business value, and develop a practical roadmap for AI adoption within insurance organizations.

Objectives

- By the end of this course, participants will be able to:
- Understand the fundamentals of Artificial Intelligence and its relevance to the insurance industry.
- Analyze how AI can transform insurance business models, processes, and customer services.
- Identify high-value AI applications across underwriting, claims, pricing, risk, and operations.
- Evaluate the suitability of machine learning and predictive analytics for insurance use cases.
- Apply AI concepts to improve underwriting risk assessment and decision-making.

- Analyze how AI can enhance claims assessment, triage, and settlement processes.
- Apply AI-supported techniques for identifying potential insurance fraud.
- Evaluate the role of AI in insurance pricing, customer segmentation, and portfolio management.
- Assess data quality and availability requirements for successful AI implementation.
- Identify model risk, bias, explainability, privacy, cybersecurity, and governance challenges.
- Establish appropriate human oversight for AI-supported insurance decisions.
- Define performance indicators for measuring AI effectiveness and business value.
- Prioritize AI initiatives based on strategic value, feasibility, risk, and organizational readiness.
- Develop a practical roadmap for implementing Artificial Intelligence across insurance operations.

Who Should Attend

This course is designed for insurance professionals working in underwriting, claims management, actuarial functions, pricing, risk management, fraud management, compliance, operations, customer service, digital transformation, data analytics, information technology, and product development.

It is particularly suitable for executives, senior managers, department heads, team leaders, specialists, analysts, and decision makers responsible for improving insurance performance, operational efficiency, risk management, customer experience, and digital capabilities.

The course is also valuable for technology, innovation, data, governance, internal audit, compliance, and risk professionals who need to understand how Artificial Intelligence can be responsibly applied within insurance organizations and how AI initiatives can be aligned with business objectives and organizational controls.

Learning Outcomes

- Upon completion of the course, participants will be able to:
- Explain the core concepts and technologies behind Artificial Intelligence in insurance.
- Identify practical AI use cases across the insurance value chain.
- Evaluate AI opportunities based on business value, data requirements, and implementation complexity.
- Assess how machine learning can support underwriting and insurance risk classification.

- Use AI-supported approaches to improve claims analysis and prioritization.
- Identify opportunities for AI-powered fraud detection and early warning systems.
- Understand how AI can support insurance pricing and customer segmentation.
- Evaluate AI applications in customer service and digital insurance channels.
- Analyze the data requirements necessary for effective AI deployment.
- Assess AI model performance and recognize potential limitations and errors.
- Identify risks related to bias, explainability, privacy, cybersecurity, and model governance.
- Establish appropriate human-in-the-loop controls for critical insurance decisions.
- Define meaningful performance indicators for AI-enabled insurance processes.
- Develop business cases for priority AI initiatives.
- Create a structured implementation roadmap for AI adoption within an insurance organization.

Course Outline

DAY 01

Artificial Intelligence Fundamentals and the Future of Insurance

- Understanding Artificial Intelligence and its evolution.
- Key AI technologies relevant to insurance.
- Machine learning and predictive analytics.
- Natural language processing and intelligent document processing.
- Computer vision and automated image analysis.
- Intelligent automation and AI-powered decision support.
- AI applications across the insurance value chain.
- Opportunities and limitations of AI in insurance.
- Building organizational readiness for AI adoption.

PRACTICAL APPLICATION

Map the insurance value chain and identify high-value opportunities for Artificial Intelligence.

DAY 02

Artificial Intelligence for Underwriting, Pricing and Risk Assessment

- AI applications in insurance underwriting.
- Automated risk assessment and classification.
- Using machine learning to identify risk patterns.
- AI-supported underwriting decision-making.
- Data-driven customer and policy segmentation.
- Predictive analytics for loss and risk forecasting.
- AI applications in insurance pricing and rating.
- Identifying anomalies and inconsistent underwriting information.
- Balancing automated recommendations with professional underwriting judgment.

PRACTICAL APPLICATION

Develop an AI-supported underwriting framework for assessing and prioritizing insurance risks.

DAY 03

Artificial Intelligence for Claims Management and Fraud Detection

- AI across the claims management lifecycle.
- Automated claims intake and document processing.
- Claims classification and intelligent triage.
- Predicting claims severity and processing complexity.
- AI-supported claims assessment and settlement.
- Identifying unusual claims patterns.
- Machine learning for insurance fraud detection.
- Fraud indicators, anomaly detection, and early warning systems.
- Combining AI analytics with investigation and professional judgment.

DAY 03 — CONTINUED

PRACTICAL APPLICATION

Design an AI-enabled claims triage and fraud detection workflow.

DAY 04**AI, Customer Experience, Data and Insurance Operations**

- AI-powered customer service and digital insurance experiences.
- Virtual assistants and intelligent customer interactions.
- Natural language processing for customer communications.
- AI applications in policy administration and document management.
- Using AI to analyze customer feedback and complaints.
- Predictive analytics for customer behavior and retention.
- AI-supported product development and personalization.
- Data quality, data integration, and AI readiness.
- Integrating AI with existing insurance systems and workflows.

PRACTICAL APPLICATION

Design an AI use case that improves customer experience and operational efficiency.

DAY 05**AI Governance, Risk Management and Implementation Strategy**

- Establishing an effective AI governance framework.
- AI model risk and performance management.
- Data privacy and protection of sensitive insurance information.
- Bias, fairness, transparency, and explainability.
- Cybersecurity risks associated with AI systems.
- Human oversight and accountability.
- Third-party AI technology and vendor risk management.
- Defining AI performance indicators and value realization.

DAY 05 — CONTINUED

- Prioritizing AI investments and developing business cases.
- Building an enterprise AI implementation roadmap.
- Managing organizational change and workforce readiness.
- Final Practical Workshop: Develop a comprehensive Artificial Intelligence implementation roadmap for an insurance organization, including priority use cases, data requirements, governance controls, risk mitigation measures, performance indicators, and implementation priorities.

Register or Request More Information

Course page: <https://quest-training.com/courses/artificial-intelligence-in-insurance-training-course>

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