AI and Generative AI in Insurance Strategy Training Course

Professional Development Training Course Outline

Category	Insurance	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The insurance industry is experiencing a dynamic transformation, powered by Artificial Intelligence (AI) and Generative AI technologies. These cutting-edge tools are revolutionizing underwriting, claims processing, customer engagement, fraud detection, and risk assessment. Training Course on AI & Generative AI in Insurance Strategy is designed for insurance professionals seeking to build strategic acumen and operational proficiency in leveraging AI-driven solutions for innovation and competitive edge.

As insurers strive to meet changing customer expectations and streamline operations, AI-powered automation, machine learning, predictive analytics, and generative AI modeling are key to staying relevant in a rapidly digitizing landscape. Participants will gain actionable insights, explore real-world case studies, and develop strategies to deploy AI ethically and effectively in insurance workflows, product development, and business intelligence. This course is your gateway to mastering the future of insurance technology.

Programme Curriculum

AI and Generative AI in Insurance Strategy Training Course

Introduction

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Course Objectives

1. Understand core principles of Artificial Intelligence and Generative AI.
2. Explore AI-driven innovation trends reshaping insurance services.
3. Apply AI in underwriting, claims, fraud detection, and policy pricing.
4. Evaluate the ethical implications of AI in insurance decision-making.
5. Develop predictive analytics models for risk evaluation.
6. Integrate generative AI in customer engagement and communication.
7. Learn about regulatory frameworks governing AI in insurance.
8. Assess real-time data analysis for faster claim settlements.
9. Identify operational efficiencies through intelligent automation.
10. Utilize AI in actuarial modeling and financial forecasting.
11. Design scalable AI strategies for insurance digital transformation.
12. Measure the ROI of AI implementation in insurance firms.
13. Formulate AI governance and compliance models in insurance sectors.

Target Audiences

1. Insurance Executives & Strategy Officers
2. Underwriters and Claims Managers
3. Risk Analysts and Actuaries
4. Data Scientists in Financial Services
5. Compliance and Legal Teams
6. Insurance Technology Consultants
7. Business Intelligence Analysts
8. Product Managers in Insurance

Course Duration: 10 days

Course Modules

Module 1: Foundations of AI and Generative AI

- History and evolution of AI
- Generative AI fundamentals (GANs, LLMs)
- AI vs. Machine Learning vs. Deep Learning
- Use cases of AI in financial services
- Importance of data in AI systems
- **Case Study:** OpenAI GPT deployment in banking & insurance

Module 2: Strategic Implementation of AI in Insurance

- Roadmap for AI transformation
- Building AI capabilities within teams
- Prioritizing AI use cases
- Integrating AI with core insurance platforms
- KPIs and metrics for success
- **Case Study:** AI-led transformation at Lemonade Insurance

Module 3: AI in Underwriting Processes

- Automated underwriting systems

- Machine learning for risk scoring
- Enhanced customer profiling
- Predictive modeling for policies
- Reducing time and error in underwriting
- **Case Study:** Zurich Insurance AI-based underwriting

Module 4: AI in Claims Management

- Claims triage automation
- Computer vision for damage assessment
- Natural language processing for document analysis
- Predictive claims resolution
- Fraud detection with anomaly detection
- **Case Study:** Progressive Insurance's AI claims bot

Module 5: Fraud Detection Using AI

- Pattern recognition algorithms
- Real-time monitoring systems
- Multi-source data integration
- AI red-flagging techniques
- Ethical concerns and transparency
- **Case Study:** Allstate's fraud analytics platform

Module 6: Predictive Analytics for Risk Management

- Forecasting future claims trends
- Behavioral and lifestyle data integration
- Risk segmentation models
- Customer retention prediction
- Risk-adjusted pricing strategies
- **Case Study:** AXA's predictive modeling unit

Module 7: Generative AI for Customer Experience

- Chatbots and virtual assistants
- Text-to-speech insurance assistants
- Personalized policy recommendations
- Omnichannel AI support
- Generative content for education & marketing
- **Case Study:** Use of ChatGPT by digital insurers

Module 8: AI Ethics and Governance in Insurance

- Bias and fairness in AI models
- Transparent algorithmic decision-making
- Regulatory compliance strategies
- AI explainability techniques
- Building ethical AI frameworks
- **Case Study:** Ethics review board at Prudential

Module 9: Data Architecture for AI in Insurance

- Data lakes vs. data warehouses
- Data privacy and security protocols
- Structured vs. unstructured data use

- Real-time data ingestion for AI
- Cloud-based AI platforms
- **Case Study:** Data modernization at MetLife

Module 10: AI in Product Development

- Using AI to identify customer needs
- Dynamic policy generation
- Pricing optimization models
- Real-time feedback loops
- Product innovation lifecycle with AI
- **Case Study:** Oscar Health's AI-driven product design

Module 11: Compliance, Risk & Regulation

- Global and local insurance regulations
- Impact of GDPR and data laws
- Auditing AI systems
- Documentation for regulators
- Risk classification and policy fairness
- **Case Study:** EU's AI Act and its impact on insurers

Module 12: Actuarial Science & AI Integration

- Modernizing actuarial tools with AI
- Dynamic pricing models
- Mortality/morbidity predictions using ML
- Advanced simulations and scenario testing
- AI in investment strategies
- **Case Study:** AI augmentation in actuarial forecasts at Swiss Re

Module 13: AI and Insurance Marketing Strategy

- Targeted marketing with AI insights
- Predictive customer behavior models
- Personalization of ads and messaging
- GenAI-generated campaigns
- AI for cross-selling and upselling
- **Case Study:** InsurTech marketing automation at Hippo

Module 14: ROI and Cost Analysis of AI Implementation

- Budgeting AI investments
- Measuring efficiency gains
- Total cost of ownership (TCO)
- Long-term cost savings analysis
- Performance benchmarks
- **Case Study:** AI ROI evaluation in mid-sized insurers

Module 15: Future of AI in Insurance

- Trends in quantum and edge AI
- Autonomous insurance solutions
- AI and blockchain convergence
- Evolving role of AI regulators
- Insurance workforce transformation

- **Case Study:** 2030 AI outlook for insurance by McKinsey

Training Methodology

- Instructor-led virtual or on-site sessions
- Interactive case study workshops
- Hands-on labs using AI tools (e.g., ChatGPT, Python, Tableau)
- Real-world simulations with insurance datasets
- Group discussions and breakout rooms
- Continuous assessments and feedback loops

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

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