Ethical AI Governance and Bias Mitigation in Insurance 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

In an era where artificial intelligence (AI) is revolutionizing the insurance industry, understanding its ethical implications and potential for algorithmic bias has never been more critical. The integration of AI in underwriting, claims processing, risk assessment, and customer engagement demands a robust framework for AI governance and fairness assurance. Training Course on Ethical AI Governance & Bias Mitigation in Insurance is designed to equip insurance professionals with the tools and knowledge necessary to ensure responsible AI deployment in compliance with regulatory standards and ethical best practices.

This course bridges the gap between AI innovation and compliance, focusing on practical strategies to detect, assess, and mitigate bias in AI models while fostering a culture of transparency, accountability, and inclusivity. Learners will gain insights into model interpretability, data ethics, regulatory frameworks such as GDPR and the EU AI Act, and industry-specific case studies that highlight the real-world impact of unethical AI use in insurance operations.

Programme Curriculum

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Course Objectives

1. Understand the fundamentals of ethical AI and its importance in the insurance sector.
2. Identify common sources of AI bias in insurance models.
3. Analyze the impact of unfair algorithms on vulnerable customer populations.
4. Evaluate regulatory requirements and compliance mandates related to AI governance.
5. Develop strategies for bias detection and mitigation.
6. Implement ethical data collection and handling practices.
7. Interpret AI transparency and explainability in underwriting and claims.
8. Establish effective AI risk management frameworks.
9. Promote diversity and inclusion in algorithmic decision-making.
10. Integrate responsible AI principles in product development and customer service.
11. Conduct algorithmic audits and apply bias testing tools.
12. Collaborate across departments for AI ethics alignment.
13. Apply case-based learning to solve real-world AI governance challenges.

Target Audiences

1. AI Ethics Officers
2. Insurance Compliance Officers
3. Data Scientists in Insurance
4. Actuaries and Underwriters
5. Risk Management Professionals
6. Insurance Product Developers
7. Legal & Regulatory Affairs Teams
8. IT and Technology Leaders in Insurance

Course Duration: 10 days

Course Modules

Module 1: Foundations of Ethical AI in Insurance

- Define ethical AI and core principles
- Understand ethical risk in algorithmic systems
- Review the history of AI in insurance
- Differentiate ethical vs. legal compliance
- Align AI values with organizational mission
- **Case Study**: Ethical dilemma in automated claims rejection

Module 2: Types and Sources of Bias in Insurance AI Models

- Identify data, algorithmic, and societal bias
- Understand proxy variables and indirect discrimination
- Evaluate historical data impacts
- Explore bias in customer segmentation
- Recognize risk in personalized pricing algorithms
- **Case Study**: Gender bias in premium setting

Module 3: Data Ethics and Privacy

- Collect consent-driven, fair data
- Understand anonymization and pseudonymization
- Ensure diverse and representative datasets
- Comply with data privacy laws (e.g., GDPR, CCPA)
- Implement transparent data governance policies
- **Case Study**: Privacy breach from training data exposure

Module 4: Regulatory and Legal Frameworks

- Overview of global AI regulations (EU AI Act, GDPR)
- Understand U.S. AI insurance compliance trends
- Align with ethical AI principles and ISO standards
- Explore penalties for non-compliance
- Maintain audit-ready documentation
- **Case Study**: Lawsuit due to discriminatory claim denials

Module 5: AI Governance Structures

- Define internal AI oversight roles and responsibilities
- Create cross-functional ethics committees
- Develop ethical review workflows
- Track model development with version control
- Conduct internal ethical risk assessments
- **Case Study**: Implementation of AI ethics board at an insurer

Module 6: Detecting and Measuring Bias

- Use fairness metrics (e.g., disparate impact)
- Employ open-source bias testing tools
- Conduct internal audits of predictive models
- Understand trade-offs between accuracy and fairness
- Monitor model drift and performance over time
- **Case Study**: Bias detection in life insurance risk scoring

Module 7: Mitigating Bias in AI Systems

- Apply re-weighting and re-sampling techniques
- Implement adversarial debiasing models
- Remove biased features during preprocessing
- Conduct bias impact assessments
- Re-validate AI systems post-mitigation
- **Case Study**: Reduction of racial bias in underwriting AI

Module 8: Explainability and Transparency in AI

- Define model explainability and why it matters
- Use tools like LIME, SHAP for interpretable outputs
- Communicate decisions to non-technical stakeholders
- Meet regulatory transparency obligations
- Train staff in explaining AI decisions to customers
- **Case Study**: Transparent claim denial appeal process

Module 9: Responsible AI in Customer Engagement

- Design AI chatbots with ethical safeguards
- Prevent manipulation in AI-driven marketing

- Ensure inclusivity in digital touchpoints
- Detect emotional manipulation or bias
- Build trust through AI-human collaboration
- **Case Study**: Ethical design of a claims chatbot

Module 10: Risk Management in AI-Driven Insurance

- Establish AI-specific risk registers
- Assess reputational, operational, legal risks
- Develop mitigation strategies for ethical issues
- Use risk heatmaps for model decisions
- Set AI incident response protocols
- **Case Study**: Risk fallout from an AI pricing error

Module 11: Inclusive AI Design Practices

- Involve diverse teams in AI design
- Promote stakeholder participation
- Prioritize accessibility in model deployment
- Integrate ethical UX/UI practices
- Embed ethical testing in agile workflows
- **Case Study**: Inclusive design of insurance app using AI

Module 12: Continuous Monitoring and Evaluation

- Set key performance indicators (KPIs) for ethics
- Automate model monitoring dashboards
- Perform regular ethical audits
- Involve third-party auditors
- Use A/B testing to measure fairness
- **Case Study**: Monitoring AI in health insurance coverage

Module 13: Organizational Culture for Ethical AI

- Train teams on ethics and unconscious bias
- Foster ethical leadership and accountability
- Promote whistleblowing channels
- Align incentives with ethical outcomes
- Track ethical maturity and culture metrics
- **Case Study**: Cultural transformation at a major insurer

Module 14: Cross-Functional Collaboration

- Break silos between legal, tech, and business teams
- Conduct ethical design sprints
- Map stakeholder roles in AI development
- Use collaborative platforms for governance
- Share best practices across departments
- **Case Study**: Interdisciplinary AI governance success story

Module 15: Future of Ethical AI in Insurance

- Explore upcoming AI regulatory changes
- Anticipate ethical issues with generative AI
- Understand impact of real-time AI underwriting
- Embrace ethical AI innovation for competitive edge

- Prepare for AI-enabled sustainability reporting
- **Case Study**: Ethical use of GenAI in insurance analytics

Training Methodology

- Instructor-led presentations with real-world scenarios
- Hands-on exercises using fairness tools and frameworks
- Group discussions and ethical dilemma simulations
- Quizzes and knowledge checks after each module
- Final project: Building an ethical AI use case in insurance
- Live feedback and coaching from AI ethics experts

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
16 Nov 2026	27 Nov 2026	Online	$2,000
16 Nov 2026	27 Nov 2026	Physical	$3,000
16 Nov 2026	27 Nov 2026	Physical	$6,000
16 Nov 2026	27 Nov 2026	Physical	$6,000

Start Date	End Date	Location	Price
16 Nov 2026	27 Nov 2026	Physical	$12,000
16 Nov 2026	27 Nov 2026	Physical	$9,000
16 Nov 2026	27 Nov 2026	Physical	$12,000
16 Nov 2026	27 Nov 2026	Physical	$12,000

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