Parametric Insurance Design and Application 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

Parametric insurance is transforming the global risk transfer landscape, offering faster payouts, increased transparency, and reduced administrative overhead. This innovative model, which bases claim payouts on predefined parameters rather than traditional loss assessments, is gaining momentum in climate risk, agriculture, energy, and catastrophe insurance. With climate volatility on the rise and insurance gaps widening, understanding parametric insurance design is critical for risk managers, underwriters, regulators, and development organizations.

Training Course on Parametric Insurance Design & Application equips participants with cutting-edge knowledge of parametric insurance mechanisms, product structuring, pricing strategies, regulatory frameworks, and real-world applications. Participants will explore emerging technologies such as satellite data and blockchain, and assess how these tools are reshaping risk modeling and claims automation. Through in-depth modules, case studies, and interactive exercises, this course empowers professionals to design scalable, sustainable, and impactful parametric insurance solutions.

Programme Curriculum

Parametric Insurance Design and Application Training Course

Introduction

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Course Objectives

1. Understand the core principles of parametric insurance and its differences from traditional indemnity models.
2. Analyze the impact of climate change on insurance innovation.
3. Explore parametric product design strategies for agriculture, disaster, and energy sectors.
4. Identify key risk triggers and payout structures in parametric contracts.
5. Evaluate the role of data sources (e.g., IoT, remote sensing, satellite imagery) in triggering events.
6. Interpret actuarial modeling and pricing methodologies for parametric insurance.
7. Comprehend regulatory and compliance considerations across jurisdictions.
8. Learn about blockchain and smart contract integration in parametric insurance.
9. Develop skills for stakeholder engagement and product marketing.
10. Assess the financial sustainability and risk layering strategies.
11. Design index-based insurance solutions for underserved markets.
12. Apply parametric reinsurance techniques for risk pooling.
13. Analyze real-world case studies and impact assessments of parametric products.

Target Audience

1. Insurance and reinsurance professionals
2. Climate risk analysts and disaster response planners
3. Government and regulatory bodies
4. Financial sector regulators and policymakers
5. InsurTech entrepreneurs and product developers
6. NGO and development agency staff
7. Agricultural extension officers and risk managers
8. Academics and postgraduate students in insurance or finance

Course Modules

Module 1: Introduction to Parametric Insurance

- Definition and history of parametric insurance
- Indemnity vs parametric: Key differences
- Benefits and limitations
- Global market trends and adoption
- Parametric triggers explained
- **Case Study:** African Risk Capacity and drought index insurance

Module 2: Climate Change and Insurance Innovation

- Climate variability and risk transfer
- Protection gap and market opportunity
- Role of parametric models in climate adaptation
- Integrating climate models with insurance
- Public-private partnership strategies
- **Case Study:** Caribbean Catastrophe Risk Insurance Facility (CCRIF)

Module 3: Parametric Insurance for Agriculture

- Index design for crops and livestock
- Yield and weather-based triggers
- Data collection and calibration
- Farmer adoption and trust-building
- Microinsurance vs meso/macro-level insurance
- **Case Study:** India's Weather-Based Crop Insurance Scheme (WBCIS)

Module 4: Disaster Risk Financing & Catastrophe Bonds

- Use of CAT models and hazard mapping
- Disaster bonds and parametric triggers
- Sovereign risk pooling
- Emergency liquidity financing
- Impact measurement metrics
- **Case Study:** Mexico’s FONDEN CAT Bond Program

Module 5: Data Sources and Technology

- Satellite imagery and NDVI
- IoT and sensor-based data
- Machine learning for risk modeling
- Weather station networks
- Data transparency and governance
- **Case Study:** Swiss Re's satellite-enabled flood insurance in Thailand

Module 6: Product Design and Development

- Trigger selection and threshold setting
- Basis risk mitigation
- Underwriting and capital structuring
- Customer-centric product innovation
- Piloting and iteration cycles
- **Case Study:** Index-based livestock insurance in Kenya (IBLI)

Module 7: Actuarial Pricing and Modeling

- Index calibration and historical data
- Premium pricing strategies
- Risk modeling and reinsurance costs
- Data sufficiency challenges
- Scenario testing and stress analysis
- **Case Study:** Parametric earthquake insurance in Japan

Module 8: Regulatory Landscape

- Jurisdictional challenges
- Consumer protection in parametric products
- Licensing and approval processes
- Role of central banks and insurance commissions
- Cross-border product design
- **Case Study:** EU regulations on parametric products

Module 9: Blockchain and Smart Contracts

- Smart contracts in parametric triggers
- Distributed ledger for claims processing

- Reducing fraud and increasing speed
- Tokenization of insurance products
- Integration with IoT platforms
- **Case Study:** Etherisc's decentralized crop insurance in Sri Lanka

Module 10: Customer Education and Product Marketing

- Awareness-building strategies
- Visualizing risk and payout models
- Policyholder engagement methods
- Behavioral insights in design
- Distribution partnerships and channels
- **Case Study:** MicroEnsure’s mobile-enabled index insurance in Ghana

Module 11: Parametric Reinsurance and Risk Pooling

- Multi-layered risk sharing
- Role of reinsurance treaties
- Pooling structures and governance
- Retention and attachment points
- Sovereign and regional pools
- **Case Study:** African Risk Capacity (ARC) Re Ltd.

Module 12: Financial Sustainability and Scalability

- Funding sources (e.g., donors, investors)
- Pricing adequacy and risk buffers
- Longevity of parametric programs
- Public-private co-financing
- Building scale through partnerships
- **Case Study:** Start Network’s risk financing platform

Module 13: Use in Energy and Infrastructure

- Renewable energy generation risks
- Downtime coverage using parameters
- Energy yield insurance
- Infrastructure delay insurance
- Risk data integration with operations
- **Case Study:** Parametric wind power insurance in the Philippines

Module 14: Designing for Emerging Markets

- Local capacity building
- Aligning with development goals
- Data scarcity solutions
- Simplified customer interfaces
- Community-based distribution
- **Case Study:** World Bank's regional insurance initiatives in Pacific Islands

Module 15: Monitoring, Evaluation & Impact Assessment

- Claims audit and data integrity
- Customer feedback loops
- KPIs for impact measurement
- Adaptive design based on results

- Tools for real-time monitoring
- **Case Study:** USAID's evaluation of Haiti parametric insurance

Training Methodology

- Interactive online and in-person delivery
- Use of simulations and data dashboards
- Group breakout sessions for problem-solving
- Live demonstrations of tools and platforms
- Real-world case study analysis and discussion
- Expert-led Q&A and peer exchange forums

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:

Register Online Now

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