Life Insurance Product Design and Actuarial Basics 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

Life insurance is an essential component of financial security and wealth protection in today's volatile global market. As the demand for customized insurance products, data-driven underwriting, and AI-powered risk assessment grows, professionals must understand the core principles of insurance product design and actuarial modeling. Training Course on Life Insurance Product Design & Actuarial Basics is tailored for those looking to gain insights into the mathematics of insurance, product structuring, regulatory frameworks, and profitability analysis to meet modern market demands.

In this training, participants will explore technical actuarial foundations, including pricing models, risk classification, mortality tables, policyholder behavior, and investment-linked policies. Whether you're in product development, actuarial science, or insurance sales strategy, this course equips you with practical knowledge, real-world case studies, and hands-on tools to design robust, competitive, and compliant life insurance products.

Programme Curriculum

Life Insurance Product Design and Actuarial Basics Training Course

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Course Objectives

1. Understand the fundamentals of life insurance product development.
2. Apply principles of actuarial mathematics in pricing and reserving.
3. Use mortality and morbidity tables effectively in policy design.
4. Evaluate risk pooling and underwriting strategies.
5. Analyze policyholder behavior and lapse rate trends.
6. Integrate regulatory compliance and solvency requirements.
7. Develop unit-linked and traditional policy structures.
8. Use predictive analytics and AI in insurance modeling.
9. Design customer-centric insurance products.
10. Implement data visualization for actuarial reporting.
11. Compare global insurance trends and innovations.
12. Assess product profitability and sustainability.
13. Conduct scenario analysis and stress testing for actuarial assumptions.

Target Audience

1. Actuarial Analysts
2. Product Development Managers
3. Life Insurance Underwriters
4. Financial Planners
5. Insurance Regulators
6. Insurance Sales Professionals
7. Data Analysts in Insurance
8. Risk Management Officers

Course Duration: 10 days

Course Modules

Module 1: Introduction to Life Insurance Products

- Overview of life insurance markets
- Product categories: term, whole life, ULIP
- Key features and benefits
- Insurance product lifecycle
- Current trends in insurance product innovation
- **Case Study: Evolution of Term Plans in Asia-Pacific**

Module 2: Fundamentals of Actuarial Science

- Time value of money in insurance
- Compound interest and annuities
- Life tables and actuarial notations
- Concept of premiums and reserves
- Basic actuarial models
- **Case Study: Actuarial Modeling in Indian Insurance Firms**

Module 3: Mortality, Morbidity & Longevity

- Understanding mortality and morbidity data
- Constructing mortality tables

- Longevity risk and its implications
- Trends in health and life expectancy
- Global mortality improvements
- **Case Study: Longevity Trends in European Markets**

Module 4: Product Design & Features

- Traditional vs. modern insurance products
- Designing policy benefits and riders
- Customizing sum assured and policy tenure
- Surrender value and paid-up value
- Role of actuarial input in design
- **Case Study: Designing ULIPs for Millennials**

Module 5: Premium Pricing Techniques

- Net vs. gross premium calculation
- Loadings and expense assumptions
- Profit margins and capital requirements
- Interest rate assumptions
- Rate of return and risk margins
- **Case Study: Premium Structure for a Whole Life Plan**

Module 6: Reserving & Solvency

- Importance of reserves in insurance
- Statutory vs. policy reserves
- Dynamic solvency testing
- Regulatory capital requirements (Solvency II, RBC)
- Role of actuaries in financial reporting
- **Case Study: Solvency Analysis of an Insurer in the U.S.**

Module 7: Underwriting & Risk Classification

- Principles of underwriting
- Risk classification models
- Role of medical underwriting
- Anti-selection and fraud mitigation
- Automation in underwriting
- **Case Study: AI-based Risk Scoring in Life Insurance**

Module 8: Policyholder Behavior & Lapse Modeling

- Lapse and surrender behavior
- Behavioral economics in insurance
- Persistency ratios
- Retention strategies
- Impact on pricing and reserves
- **Case Study: Lapse Trends in Latin America**

Module 9: Regulatory Environment

- Insurance regulatory frameworks
- International solvency norms
- IRDAI, NAIC, EIOPA guidelines
- Consumer protection and product filings

- ESG and sustainability disclosures
- **Case Study: Regulatory Hurdles in Product Launch**

Module 10: Technology in Life Insurance

- Insurtech innovations
- AI & ML in actuarial modeling
- Blockchain for policy management
- IoT and health-based underwriting
- Digital transformation in distribution
- **Case Study: AI-Driven Product Customization**

Module 11: Investment-Linked Products

- Structure of ULIPs and VULs
- Fund management and NAV
- Charges and transparency
- Risk-return profiling
- Suitability assessment
- **Case Study: ULIP Performance During COVID-19**

Module 12: Profitability and Performance Metrics

- Key financial performance indicators
- Embedded value and profitability
- Claims ratio and persistency metrics
- Return on equity and solvency margins
- Long-term vs. short-term profitability
- **Case Study: Profitability Analysis in Emerging Markets**

Module 13: Reinsurance & Risk Transfer

- Basics of reinsurance
- Types: facultative, treaty, proportional
- Risk mitigation through reinsurance
- Capital relief strategies
- Retention and ceding policies
- **Case Study: Reinsurance Strategies Post-Pandemic**

Module 14: Global Trends & Innovations

- Rise of microinsurance
- Climate insurance and parametric models
- Usage-based life insurance (UBLI)
- Personalized wellness-linked insurance
- Regulatory tech (RegTech)
- **Case Study: Innovation in Africa’s Life Insurance Market**

Module 15: Project Work & Capstone

- Insurance product design simulation
- Pricing and reserving tasks
- Report on policyholder behavior trends
- Regulatory compliance checklist
- Final presentation and peer review
- **Case Study: Group Project on Life Product Launch**

Training Methodology

- Instructor-led live online sessions and workshops
- Hands-on actuarial modeling using Excel and R
- Real-world case study analysis and simulation exercises
- Group discussions and peer-reviewed assignments
- Access to digital resources and downloadable templates

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
21 Sep 2026	02 Oct 2026	Online	$2,000
21 Sep 2026	02 Oct 2026	Physical	$3,000
21 Sep 2026	02 Oct 2026	Physical	$0
21 Sep 2026	02 Oct 2026	Physical	$0
21 Sep 2026	02 Oct 2026	Physical	$0
21 Sep 2026	02 Oct 2026	Physical	$0

Start Date	End Date	Location	Price
21 Sep 2026	02 Oct 2026	Physical	$0
21 Sep 2026	02 Oct 2026	Physical	$0

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

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com