QUEST
Professional Center

PROFESSIONAL TRAINING COURSE

Course No. 1830

Insurance Reserving & Loss Reserving Techniques Training Course

ACTUARIAL SCIENCE & INSURANCE ANALYTICS
INSURANCE & RISK MANAGEMENT

DURATION
5 Days

DELIVERY
Classroom

Course Overview

The Insurance Reserving & Loss Reserving Techniques Training Course provides a comprehensive and practical framework for understanding, evaluating, and managing insurance reserves and outstanding loss liabilities. The course focuses on the actuarial, financial, and operational principles required to estimate future claim payments accurately and maintain appropriate reserve levels across different lines of insurance business.

Participants will examine the key components of insurance reserving, including reported and unreported claims, incurred losses, claim development patterns, ultimate loss estimation, reserve adequacy, and reserve uncertainty. The course provides practical insight into how historical claims data, exposure information, claims trends, inflation, settlement patterns, and changes in underwriting or claims practices influence reserve estimates.

The program introduces widely used loss reserving methodologies and explains how to select an appropriate approach according to the nature and quality of available data. Participants will explore development-based techniques, expected-loss approaches, Bornhuetter-Ferguson methodologies, chain-ladder concepts, frequency and severity approaches, and other analytical considerations relevant to insurance reserving.

The course also addresses reserve governance, validation, monitoring, sensitivity analysis, and communication of reserve results to management and stakeholders. Through practical exercises and case studies, participants will develop the ability to interpret reserve estimates, identify potential deficiencies or redundancies, assess uncertainty, and support sound financial and risk management decisions.

Objectives

- By the end of the course, participants will be able to:
- Explain the principles, purpose, and role of insurance reserving in financial and risk management.
- Analyze the components of outstanding claims and loss liabilities.
- Evaluate claims development patterns and their impact on reserve estimates.
- Apply appropriate loss reserving techniques to different insurance portfolios.

- Assess the assumptions, data requirements, strengths, and limitations of reserving methods.
- Evaluate reserve adequacy and identify potential under-reserving or over-reserving.
- Analyze the impact of inflation, claims trends, settlement patterns, and operational changes on reserves.
- Apply approaches for estimating ultimate losses and outstanding claim liabilities.
- Conduct sensitivity and scenario analysis to evaluate reserve uncertainty.
- Interpret reserve estimates and communicate key findings and risks to management.
- Strengthen reserve review, validation, governance, documentation, and monitoring processes.
- Apply reserving insights to support pricing, profitability, capital, and strategic insurance decisions.

Who Should Attend

This course is designed for actuaries, actuarial analysts, reserving specialists, insurance analysts, claims professionals, underwriting professionals, risk managers, finance professionals, and insurance portfolio specialists involved in estimating, reviewing, monitoring, or interpreting insurance reserves.

It is also suitable for claims managers, financial controllers, insurance executives, internal auditors, risk and capital professionals, compliance specialists, and senior decision makers who need to understand the technical and financial implications of loss reserving and reserve adequacy.

The program is particularly valuable for professionals who work with actuarial reports, claims development data, reserve estimates, financial statements, or insurance performance information and need a stronger practical understanding of reserving methodologies and their business implications.

Learning Outcomes

- Upon successful completion of the course, participants will be able to:
- Explain the role of insurance reserves within the insurance financial framework.
- Distinguish between reported claims, incurred losses, incurred but not reported claims, and ultimate losses.
- Prepare and interpret claims development triangles.

- Analyze historical claims development and identify relevant trends and patterns.
- Apply major loss reserving techniques to practical insurance scenarios.
- Evaluate reserve estimates and assess their reasonableness and adequacy.
- Identify potential sources of reserve uncertainty and volatility.
- Assess the impact of inflation, claims settlement speed, exposure changes, and claims management practices.
- Perform sensitivity and scenario analysis on reserve estimates.
- Compare alternative reserving approaches and select appropriate methodologies.
- Identify potential reserve deficiencies, redundancies, and emerging deterioration.
- Interpret actuarial reserving results for financial and management decision-making.
- Strengthen reserve governance, validation, documentation, and review processes.
- Use reserving insights to support pricing, profitability, capital management, and risk decisions.

Course Outline

DAY 01

Fundamentals of Insurance Reserving

- Purpose, principles, and role of insurance reserves
- Types of claims reserves and outstanding loss liabilities
- Reported claims, incurred losses, unreported claims, and ultimate losses
- Claims development, settlement patterns, exposure, and reserving data requirements

PRACTICAL APPLICATION

Review an insurance claims portfolio and identify key reserving requirements

DAY 02

Claims Development & Data Analysis

- Preparing and interpreting claims development triangles
- Paid and incurred development approaches
- Historical development patterns and selection of development factors
- Data quality, segmentation, outliers, changes in claims practices, and structural breaks

DAY 02 — CONTINUED

> **PRACTICAL APPLICATION**
> Analyze a claims development triangle and identify appropriate development assumptions

DAY 03

Loss Reserving Techniques & Methodologies

- Chain-ladder methodology and development-based reserving
- Expected-loss approaches and exposure-based reserving
- Bornhuetter-Ferguson methodology and its practical application
- Frequency and severity approaches and selection of appropriate reserving methods

> **PRACTICAL APPLICATION**
> Compare reserving techniques using a practical insurance dataset

DAY 04

Reserve Adequacy, Uncertainty & Financial Impact

- Evaluating reserve adequacy and identifying under-reserving or over-reserving
- Reserve uncertainty, volatility, and range of reasonable estimates
- Impact of inflation, claims trends, settlement patterns, and operational changes
- Sensitivity analysis, scenario analysis, and stress testing of reserve estimates

> **PRACTICAL APPLICATION**
> Assess reserve adequacy and quantify the impact of alternative assumptions

DAY 05

Reserve Governance, Validation & Strategic Application

- Reserve review, validation, documentation, and governance
- Monitoring reserve development and identifying adverse or favorable changes
- Communicating reserve results, assumptions, uncertainty, and key risks to management

DAY 05 — CONTINUED

- Using reserving insights to support pricing, profitability, capital, and risk management

> **FINAL WORKSHOP**
>
> Develop an integrated reserving assessment covering data analysis, methodology selection, ultimate loss estimation, reserve adequacy, uncertainty, and management recommendations

Register or Request More Information

Course page: https://quest-training.com/courses/insurance-reserving-loss-reserving-techniques-training-course
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