

Course No. 1913

Insurance Portfolio & Risk Analytics Training Course

INSURANCE DATA & ANALYTICS
INSURANCE & RISK MANAGEMENT

DURATION

5 Days

DELIVERY

Classroom



Course Overview

This advanced training course provides a comprehensive framework for analyzing insurance portfolios and managing portfolio-level risks through data-driven techniques. It is designed to help insurance professionals understand portfolio composition, risk concentration, exposure patterns, profitability, claims performance, and emerging risk indicators to support stronger strategic and risk-based decision-making.

The course examines the relationship between portfolio structure, underwriting performance, claims experience, pricing, risk exposure, customer characteristics, geographic distribution, product mix, and capital requirements. Participants will learn how to use analytical approaches to identify concentration risks, unfavorable trends, loss drivers, portfolio vulnerabilities, and opportunities for portfolio optimization.

Particular emphasis is placed on applying descriptive, diagnostic, and predictive analytics to insurance portfolio management. Participants will explore techniques for analyzing claims frequency and severity, loss ratios, risk segmentation, exposure accumulation, policy performance, customer behavior, and portfolio profitability. The program also demonstrates how analytical insights can support underwriting strategies, risk appetite decisions, portfolio rebalancing, and management reporting.

The course further addresses portfolio risk governance, data quality, model risk, scenario analysis, stress testing, early warning indicators, and risk monitoring. Through practical case studies and workshops, participants will develop the ability to construct portfolio analytics frameworks, interpret risk indicators, evaluate portfolio performance, and develop practical strategies for strengthening insurance portfolio resilience and profitability.

Objectives

- By the end of this course, participants will be able to:
- Understand the principles of insurance portfolio management and risk analytics.
- Analyze portfolio composition, exposures, risk characteristics, and performance.
- Assess portfolio concentration and accumulation risks.
- Evaluate claims frequency, severity, loss ratios, and profitability.

- Apply analytical techniques to segment insurance portfolios by risk characteristics.
- Identify key drivers of portfolio risk and underwriting performance.
- Use predictive analytics to anticipate emerging portfolio risks and performance trends.
- Analyze geographic, product, customer, and distribution-channel exposures.
- Evaluate portfolio performance against risk appetite and strategic objectives.
- Develop early warning indicators for deteriorating portfolio performance.
- Apply scenario analysis and stress testing to assess portfolio resilience.
- Identify data quality, model, governance, and analytical risks.
- Develop portfolio risk dashboards and management reporting frameworks.
- Support portfolio optimization and risk-based underwriting decisions.
- Develop a practical framework for continuous insurance portfolio monitoring.

Who Should Attend

This course is designed for insurance professionals involved in portfolio management, underwriting, risk management, actuarial functions, pricing, claims management, reinsurance, investment management, and strategic planning.

It is particularly suitable for executives, senior managers, portfolio managers, underwriting managers, risk professionals, actuaries, analysts, and decision makers responsible for monitoring insurance portfolio performance, risk exposure, profitability, and capital-related considerations.

The course is also relevant to professionals working in data analytics, business intelligence, finance, compliance, internal audit, and digital transformation who support insurance portfolio reporting, risk analysis, performance monitoring, and data-driven decision-making.

Learning Outcomes

- Upon completion of the course, participants will be able to:
- Explain the key principles of insurance portfolio and risk analytics.
- Assess portfolio composition, exposure, and risk characteristics.
- Analyze portfolio performance using relevant insurance metrics.

- Evaluate claims frequency, severity, loss ratios, and profitability.
- Identify concentration and accumulation risks across portfolios.
- Segment portfolios based on risk, customer, product, geographic, and distribution characteristics.
- Identify drivers of portfolio deterioration and underwriting performance.
- Apply predictive analytics to anticipate future portfolio risk and performance.
- Develop early warning indicators for emerging portfolio risks.
- Conduct scenario analysis and stress testing for insurance portfolios.
- Develop portfolio risk dashboards and management reports.
- Interpret portfolio analytics and communicate findings to senior management.
- Align portfolio decisions with risk appetite and strategic objectives.
- Identify data quality, model, governance, and analytical risks.
- Develop an integrated portfolio monitoring and optimization framework.

Course Outline

DAY 01

Insurance Portfolio Management and Risk Analytics Foundations

- Understanding insurance portfolio management.
- Portfolio structure and risk characteristics.
- Policy, customer, product, geographic, and distribution dimensions.
- Exposure measurement and portfolio profiling.
- Portfolio segmentation and risk classification.
- Key performance and risk indicators.
- Linking underwriting strategy with portfolio objectives.
- Risk appetite and portfolio management.
- Data requirements for portfolio analytics.

PRACTICAL APPLICATION

Build a portfolio profile and identify its key exposure and risk characteristics.

DAY 02

Portfolio Performance, Claims and Profitability Analytics

- Analyzing portfolio performance.
- Claims frequency and severity analysis.
- Loss ratio and combined performance indicators.
- Premium, exposure, and claims development analysis.
- Portfolio profitability assessment.
- Identifying loss drivers and underperforming segments.
- Product and customer profitability analysis.
- Comparing portfolio performance across business segments.
- Identifying trends and performance deterioration.

PRACTICAL APPLICATION

Analyze an insurance portfolio and identify the key drivers of claims, losses, and profitability.

DAY 03

Portfolio Risk, Concentration and Predictive Analytics

- Identifying portfolio concentration risk.
- Geographic and exposure accumulation.
- Product and customer concentration.
- Distribution-channel and counterparty exposure.
- Risk segmentation and portfolio stratification.
- Predictive analytics for portfolio risk.
- Forecasting claims and portfolio performance.
- Identifying emerging risk patterns.
- Developing portfolio early warning indicators.

PRACTICAL APPLICATION

Develop a portfolio risk analytics framework for identifying concentration and emerging risks.

DAY 04

Scenario Analysis, Stress Testing and Risk-Based Decision-Making

- Principles of scenario analysis in insurance.
- Stress testing insurance portfolios.
- Developing adverse and extreme scenarios.
- Assessing the impact of changes in claims, pricing, exposure, and risk factors.
- Portfolio sensitivity analysis.
- Linking scenario results with risk appetite.
- Supporting underwriting and portfolio rebalancing decisions.
- Using analytics to support reinsurance and risk mitigation strategies.
- Communicating portfolio risk to senior management.

PRACTICAL APPLICATION

Conduct a portfolio stress-testing exercise and develop management recommendations.

DAY 05

Portfolio Governance, Dashboards and Optimization

- Insurance portfolio risk governance.
- Data quality and portfolio analytics controls.
- Model risk and analytical governance.
- Designing portfolio risk dashboards.
- Establishing portfolio monitoring frameworks.
- Performance and risk reporting for executives.
- Portfolio optimization and risk-based decision-making.
- Developing continuous monitoring and review processes.
- Measuring portfolio resilience and value.
- Final Practical Workshop: Develop an integrated Insurance Portfolio & Risk Analytics Framework covering portfolio segmentation, key risk indicators, concentration analysis, predictive analytics, stress testing, dashboards, governance controls, and portfolio optimization priorities.



Register or Request More Information

Course page: <https://quest-training.com/courses/insurance-portfolio-risk-analytics-training-course>

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