



Advanced Medical Insurance Management: Finance, Underwriting, and Audit

7 – 11 December 2026
Cairo

Advanced Medical Insurance Management: Finance, Underwriting, and Audit

Ref: 107_88136 **Date:** 7 – 11 December 2026 **Location:** Cairo **Fees:** 4100 Euro

Overview

Rising claim costs, underwriting volatility, and complex clinical billing models challenge healthcare payers and provider networks. This programme delivers practical methodologies for advanced medical insurance management across underwriting, technical accounting, and claims auditing. Participants master risk pooling calculations, IFRS 17 actuarial reserving, medical loss ratio tracking, clinical coding audits, and fraud waste and abuse detection mechanisms. Professionals leave with actionable underwriting rating templates, claims adjudication protocols, and clinical audit checklists. This course is delivered by Agile Leaders Training Center.

Who Should Attend

- Underwriting managers responsible for group medical scheme pricing, risk profiling, and policy terms design.
- Finance professionals responsible for claims reserving, technical accounting, and solvency monitoring.
- Claims audit specialists responsible for detecting billing anomalies, fraud, and medical necessity non-compliance.
- Healthcare provider contract managers responsible for fee-for-service tariffs and value-based reimbursement agreements.
- Actuarial analysts responsible for loss ratio modelling, portfolio experience analysis, and reinsurance allocation.

Departments and Industries

This course serves finance, clinical, and underwriting teams across health financing and hospital administration sectors.

- Medical Underwriting Units in Commercial Health Insurance Companies
- Financial Planning and Reserving Teams in Reinsurance Corporations
- Revenue Cycle Management Departments in Tertiary Hospital Networks
- Claims Review and Adjudication Divisions in Third-Party Administrators
- Employee Benefits and Wellness Groups in Corporate Enterprises

Learning Objectives

By the end of this course, participants will be able to:



- Apply risk-adjusted pricing models to evaluate group medical insurance loss experience.
- Calculate technical reserves using chain-ladder and Bornhuetter-Ferguson actuarial methods.
- Analyse healthcare provider billing patterns using clinical coding audit protocols.
- Evaluate reinsurance treaty structures using quota share and stop-loss retention limits.
- Diagnose fraudulent claims submissions using statistical anomaly detection rules.
- Build financial dashboards to monitor medical loss ratios and combined operating ratios.

Course Agenda

Day 1: Underwriting Governance and Medical Risk Pricing

- Group Risk Assessment using Community Rating and Experience Rating Frameworks
- Demographic Morbidity Adjustments using Age-Sex Factor Weighting Models
- Benefit Design Optimization using Deductible and Co-Payment Sensitivity Tables
- Chronic Disease Exposure Sizing using Diagnostic Cost Group Profiling
- Medical Underwriting Guidelines using Evidence-Based Risk Selection Protocols

Day 2: Health Insurance Accounting and Technical Reserving

- Measurement of Insurance Contracts using IFRS 17 Fulfilment Cash Flow Models
- Incurred But Not Reported Reserving using Chain-Ladder Run-Off Triangles
- Ultimate Loss Estimation using Bornhuetter-Ferguson Actuarial Methods
- Capital Adequacy Assessment using Risk-Based Capital Solvency Frameworks
- Portfolio Performance Tracking using Medical Loss Ratio and Expense Ratio Dashboards

Day 3: Reinsurance Structures and Risk Transfer Strategies

- Catastrophic Risk Protection using Excess of Loss Treaty Mechanics
- Capacity Management using Proportional Quota Share Reinsurance Agreements
- High-Cost Claim Mitigation using Specific and Aggregate Stop-Loss Structures
- Reinsurer Counterparty Evaluation using Credit Risk and Solvency Matrices
- Treaty Pricing Assessment using Burning Cost and Exposure Rating Models

Day 4: Claims Adjudication and Medical Audit Controls

- Pre-Authorization Workflow Design using Clinical Pathway Utilization Reviews
- Billing Accuracy Verification using ICD-10-AM and CPT Coding Standards
- Unbundling and Upcoding Detection using Automated Rule Engine Logic
- Medical Necessity Determination using InterQual and Milliman Care Guidelines
- Post-Payment Provider Auditing using Stratified Statistical Sampling Plans



Day 5: Fraud Detection and Portfolio Governance

- Fraud, Waste, and Abuse Investigation using Anomaly Scoring Algorithms
- Provider Payment Integrity Governance using Special Investigation Unit Charters
- Value-Based Contracting Evaluation using Bundled Payment Performance Metrics
- Combined Operating Ratio Analysis using Financial Variance Models
- Capstone Integrated Medical Portfolio Underwriting and Audit Simulation

Practical Exercises

Participants complete hands-on activities to resolve operational challenges and build execution plans.

- Suggested activity: Build an experience-rated pricing sheet for a corporate group medical portfolio.
- Suggested activity: Calculate IBNR claims reserves using historical development triangulations.
- Suggested activity: Audit a batch of hospital claims to identify coding unbundling and billing anomalies.
- Suggested activity: Construct an executive dashboard tracking medical loss ratios and audit recoveries.

FAQs

How does this course address financial accounting standards?

The sessions cover liability measurement, contractual service margin tracking, and claims reserving methods aligned with IFRS 17 principles, alongside risk-based capital solvency modeling.

What clinical coding standards are referenced during audit sessions?

Auditing exercises use established diagnostic and procedural coding classifications, including ICD-10-AM and CPT, to verify billing legitimacy and identify unbundling practices.

Who benefits most from the underwriting and actuarial modules?

Underwriting managers, actuarial analysts, and finance teams benefit directly from quantitative pricing models, experience rating exercises, and portfolio risk mitigation frameworks.

Conclusion

Participants return to their organizations equipped with practical frameworks to evaluate underwriting exposure, calculate accurate technical reserves, and conduct rigorous medical claims audits. By aligning risk-adjusted pricing with robust claims integrity controls, professionals safeguard balance sheets, prevent revenue leakage, and sustain profitable healthcare financing operations.