COURSE TABLE OF CONTENTS

# Asset and Liability Management

OEM: Koenig Original • Duration: 3 Days (18 hrs)

## COURSE MODULES & TOPICS

### Module 1: Introduction to Asset-Liability Management

- Definition and evolution of ALM in financial institutions
- Objectives, principles and scope of ALM
- Relationship between assets and liabilities
- ALM approaches in banks and insurance companies
- Balance sheet structure and financial intermediation
- Sources of asset-liability mismatches
- ALM in Enterprise Risk Management (ERM)
- Strategic importance for financial stability and profitability

### Module 2: Risk Identification and Measurement in ALM

- Major ALM risks: interest rate, liquidity, market, currency, inflation, credit
- Cash-flow analysis and maturity profiling
- Contractual vs behavioural cash flows
- Gap analysis and repricing gap analysis
- Duration, modified duration and convexity
- Duration gap and interest rate sensitivity analysis
- Economic Value of Equity (EVE) and Net Interest Income (NII) sensitivity
- Cash-flow-at-risk and earnings-at-risk concepts
- Introduction to quantitative ALM modelling

### Module 3: ALM Framework for Banks

- Structure of banking assets and liabilities
- Characteristics of loans, securities, deposits and borrowings
- Interest rate risk in the banking book (IRRBB)
- Repricing and maturity mismatches
- Deposit behaviour and behavioural modelling
- Loan prepayment and early withdrawal assumptions
- Net Interest Margin (NIM) management
- Liquidity risk management and coverage
- ALM reporting and maturity buckets
- Role of Asset Liability Committee (ALCO)
- Banking ALM case study: interest rate impact

### Module 4: ALM Framework for Insurance Companies

- Structure of insurance company assets and liabilities
- Life insurance liabilities: product types and features
- General insurance liabilities: reserves and claims
- Long-term vs short-term liability management
- Cash-flow and duration matching
- Interest rate, reinvestment and embedded option risks

- Policyholder behaviour and its ALM impact
- Liquidity management for insurers
- ALM in participating funds and surplus management
- Investment strategy and liability-driven investment (LDI)
- ALM under changing mortality and claims experience
- Insurance ALM case study: long-term liabilities

### Module 5: ALM Strategies, Stress Testing and Scenario Analysis

- ALM strategy development and implementation
- Strategic asset allocation and liability-driven investment
- Cash-flow matching and immunisation strategies
- Duration matching and dynamic hedging
- Portfolio rebalancing and asset allocation
- Derivatives in ALM: swaps, forwards, futures, options
- Liquidity and interest rate stress testing
- Scenario analysis under economic changes
- Impact of inflation, recession and volatility
- Reverse and integrated balance sheet stress testing
- ALM optimisation and trade-offs
- Practical exercise: ALM strategy under scenarios

### Module 6: ALM Governance, Regulation and Emerging Practices

- ALM governance framework and organisational roles
- Role of Board, Risk Committee and ALCO
- ALM policies, limits and risk appetite
- ALM reporting and management information systems
- Integration with Enterprise Risk Management
- Regulatory perspectives: Basel, IRRBB, solvency, ORSA
- ALM and IFRS 9/17 implications
- Technology, data analytics and AI in ALM
- Predictive modelling and behavioural assumptions
- ALM model risk and validation
- Emerging challenges in ALM
- Integrated ALM case study: sustainable framework