

## FINANCIAL RISK MANAGEMENT

Date	Venues	(\$Fees	Book your seat
08 Dec -12 Dec 2024	Manama	3200	<a href="#">Register Now</a>

### Course Summary

This course will focus on variety of risks faced by financial managers and the tools available for managing these risks. Particularly, we shall focus on credit risk, interest rate and liquidity risks, market risk, foreign exchange risk, and country risk. We shall learn about the tools and techniques available for managing these risks such as future contracts, option contracts, swaps, value-at-risk (VaR) and other standard risk-hedging techniques, and methods of measuring volatility. Students attending this course are expected to have studied basic courses of investment and portfolio management and have good understanding of asset pricing models.

### Course Outline

#### 1. Introduction to Financial Risk Management

1. Motivation for risk management
2. Why risk management?
3. Creating value with risk management
4. Measuring risk for a single asset and for a portfolio of assets

#### 2. Financial Engineering & Hedging

1. Basics of derivatives
2. Forwards, pricing of forward contracts under assumptions of dividends, carrying costs, etc
3. Futures, settlement mechanism, clearing house concept
4. Hedging with futures and forwards
5. Basic, and exotic options
6. Basics of option valuations, valuation options using Black-Scholes Model
7. Duration hedging

#### 3. Measuring volatility and Correlations

1. Conditional and unconditional volatility
2. Weighted and unweighted conditional volatility
3. EWMA and GARCH (1,1) approaches to volatility
4. Estimating covariance

## **4. Market Risk**

1. Value at Risk (VaR) measurement
2. Historical and Monte Carlo Simulation approaches
3. Back-testing
4. Stress-testing
5. Capital charge for market risk under Basel rules

## **5. Credit Risk**

1. Credit analysis models (expert system, credit scoring and rating models, artificial neural networks)
2. Capital charge for credit risk under Basel rules
3. Calculating default probabilities with actuarial and market prices based methods
4. Measuring loss given defaults with actuarial methods
5. Credit Derivatives

## **6. Operational Risk**



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