

Programme : **Master of Commerce [M.Com]**
 Course Code : **COM-507**
 Course Title : **Financial Derivatives**
 Number of Credits : **4**
 Effective from AY : **2022 – 2023**

Pre-requisites for the Course:

NIL

Objectives of the Course:

1. To understand the derivative markets and the trading mechanism in India.
2. To learn the risk management techniques in derivative markets.
3. To understand the possibility of exploring the arbitrage possibilities with the integration of stock and derivatives markets.
4. To learn the logical and analytical skills to understand the applications of risk management techniques in the field of derivatives markets.

Course Content

Unit 1 : Introduction of Derivatives Markets (Theory) 12 Hours

Derivatives – Features of a Financial Derivative – Types of Financial Derivatives – Basic Financial derivatives – History of Derivatives Markets – Uses of Derivatives – Critiques of Derivatives – Financial Derivatives Market in India – Need for Derivatives – Evolution of Derivatives in India – Major Recommendations of Dr. L.C. Gupta Committee – Equity Derivatives – Strengthening of Cash Market – Benefits of Derivatives in India – Categories of Derivatives Traded in India – Derivatives Trading at NSE/BSE Eligibility of Stocks – Emerging Structure of Derivatives Markets in India -Regulation of Financial Derivatives in India

Unit 2 Forward and Futures Derivatives (Theory and Problems) 16 Hours

Forward Market: Trading Mechanism - Futures Market –Types of Financial Futures Contract –Traders in Futures Market in India –Trading Mechanism – Specification of the Future Contract – Pricing of Futures - Cost of Carry and Reverse Cost of Carry Pricing Models – Risk Management – Arbitrage – Hedging – Speculation. Hedging - **Stock Index Futures** – Concepts – Perfect Hedging Model – Basic Long and Short Hedges – Cross Hedging – Basis Risk and Hedging – Basis Risk Vs. Price Risk – Hedging Effectiveness –Stock Index Futures Trading in Indian Stock Market.

Unit 3 Options Derivatives (Theory and Problems) 16 Hours

Concept of Options – Types of options – Payoff and Moneyness of Options - Option Valuation – Option Positions Naked and Covered Option – Underlying Assets in Exchange-traded Options – Determinants of Option Prices – Binomial Option Pricing Model – Black-Scholes Option Pricing – Basic Principles of Options Trading Strategies – Greek Letters of Options - Risk Management – Arbitrage – Hedging – Speculation

Unit 4 Interest Rate Futures and Forward Rate Agreements and Currency Swaps (Theory and Problems) 16 Hours

Introduction – short term Interest Rate Futures – Contract Specifications and Settlement – Pricing Interest Rate Futures – Arbitrage with Interest Rate Futures – Cash and Carry – Reverse Cash and Carry – Long term Interest Rate Futures – Hedging – Forward Rate Agreement (FRA) – Quotes of FRA – FRA's in Hedging – **Currency Swaps** - Introduction – Evolution Swap Market – Motives of Swaps – Interest Rate Swaps – Parties in Swap – Swap Rates – Valuation of Interest Rate Swap – Types of Interest Rate Swaps – Forward Swaps – Option on Swaps – Commodity Swaps – Equity Swaps – Currency Swaps – Types of Currency Swaps – Pricing of Swaps.

Pedagogy:
ICT enabled Classroom teaching / Case study / Practical / live assignment / Interactive classroom discussions. Practical problems may be solved using available open source software.
Reference / Readings:
<ol style="list-style-type: none"> 1. Chance, <i>Introduction to Derivatives and Risk management</i>, Thomson Learning, 10th Edition, 2019 2. D C Patwari, <i>Options and Futures in an Indian Perspective</i>, Jaico Publishers, 2000 3. Franklin R Edwards, <i>Futures and Options</i>, Tata McGraw Hill, New Delhi, 1992 4. I.M, Pandey, <i>Advanced Financial Management</i>, Vikas Publishing House, New Delhi, 2016 5. John C Hull, <i>Fundamentals of Futures and Options market</i>, Pearson Education, New Delhi, 9th Edition, 2018 6. N.D.Vohra and B.R.Bagri, <i>Futures and Options</i>, Tata McGraw Hill, New Delhi, 2017 7. Prafulla Kumar Swain, <i>Fundamentals of Derivatives</i>, HPH, 2015 8. R.Mahajan, <i>Futures, and Options</i>, Vision Books Pvt Ltd, New Delhi, 2007 9. Robert W Kolb, <i>Understanding Futures Markets</i>, PHI, 6th Edition, 2006 10. William F. Sharpe, Gordon J Alexander, and Jeffery V Bailey, <i>Investments</i>, Prentice Hall New Delhi, 2000 <p>List of Journals/Periodicals/Magazines/Newspapers/Web resources, etc. Indian Journal of Finance / International Journal of Financial Markets and Derivatives / Business Standard / The Economic Times / Financial Express / NSE & BSE, SEBI, FMC, RBI Websites / ICFAI journal of Derivative Market / Business Today / Business India / Business World / Finance India / Treasury Management / Financial Risk Management</p>
Online Resources:
<ol style="list-style-type: none"> 1. Indian Journal of Finance- http://www.indianjournaloffinance.co.in/ 2. International Journal of Financial Markets and Derivatives https://www.inderscience.com/jhome.php?jcode=ijfmd 3. Business Standard - https://www.business-standard.com/ 4. The Economic Times -https://economictimes.indiatimes.com/defaultinterstitial.cms 5. Financial Express- https://www.financialexpress.com/ 6. NSE - https://www.nseindia.com/ 7. BSE - https://www.bseindia.com/ 8. SEBI - https://www.sebi.gov.in/ 9. FMC - https://www.fmc.com/en 10. RBI - https://www.rbi.org.in/ 11. ICFAI Journal of Derivative Market-https://www.worldcat.org/title/icfaijournal-of-derivatives-markets/oclc/243600392 12. Business Today - https://www.businesstoday.in/ 13. Business India - https://businessindia.co/ 14. Business World- https://www.businessworld.in/ 15. Finance India- https://www.financeindia.org 16. Treasury Management- https://www.fvcbank.com/what-is-treasurymanagement/ 17. Financial Risk Management - https://www.investopedia.com/terms/r/riskmanagement.asp
Course Outcomes:
After the completion of the course, the students will be able to:
CO1: Demonstrate an understanding of the risk management approaches and techniques.