**Syllabus for Master of Business Administration, 3rd Semester**

**Functional Area Specialization: Finance Management**

**Subject Name: Financial Derivatives (FD)**

**Subject Code: 4539222**

**With effective from academic year 2018-19**

# Learning Outcomes:

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| **Learning Outcome Component** | **Learning Outcome** |
| Business Environment and Domain Knowledge (BEDK) | * Demonstrate an understanding of the risk management approaches and techniques. * Describe and explain the fundamental features of a range of key financial derivatives instruments. |
| Critical thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI) | * Ability to solve problems requiring pricing derivative instruments and hedge market risk based on numerical data and current market trends. * Ability to devise risk management strategies and solutions based on a detailed analysis of risk   assessment and associated factors. |
| Global Exposure and Cross- Cultural Understanding (GECCU) | * Understand global conventions of valuing financial derivatives. |
| Social Responsiveness and Ethics (SRE) | * Evaluate, synthesise and communicate the ethical implications of financial risk management policies and   practices to an intended audience. |
| Effective Communication (EC) | * Ability to understand the risk management needs of clients and effectively communicate solutions   comprising financial derivatives. |
| Leadership and Teamwork (LT) | * Ability to work independently or as part of a team to develop optimal investment strategies integrating   financial derivative instruments. |

1. **Course Duration:** The course duration is of **40 sessions of 60 minutes each.**

# Course Contents:

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| **Module No:** | **Contents** | **No. of Sessions** | **70 Marks**  **(External Evaluation)** |
| **I** | **Introduction to risk management: (Only theory)**   * Defining and managing risk * Upside and downside risks * Commodity price risk * Interest rate risk * Approaches to risk management   **Introduction to derivatives:**   * Defining derivatives and derivative markets * Spot v/s Derivatives markets * Forward, Futures, Options, Swaps * Uses of derivatives   **Derivatives Market:**   * International and Indian derivatives market * Derivative exchanges * Trading system and types of traders | 10 | 18 |
|  | * Trading process, online trading * Clearing and settlement system * Regulatory framework of derivatives market in India. |  |  |
| **II** | **Forward Contracts:**   * Meaning, purpose, advantages and problems * Pricing of commodity forward contracts **(Theory and numerical).** * Interest rate forwards **(Theory and numerical).**   **Future Contracts:**   * Meaning, difference between forward and future contracts * Specifications of future contracts * Closing the position **(Theory and numerical).** * Margins and marking-to-market **(Theory and numerical).** * Cost of Carry Models **(Theory and numerical).** * Price quotes, settlement price, open interest * Types of orders   **Hedging, Speculation and Arbitrage using Futures:**   * Basis risk. Factors affecting basis risk * Single stock futures and Stock Index Futures **(Theory and numerical).** * Commodity futures **(Theory and numerical).** | 10 | 18 |
| **III** | **Fundamentals of Options:**   * Options issued by corporations (introduction) * Meaning of options contract, options terminologies * Moneyness in options (ITM, ATM, OTM) **(Theory and numerical).** * Factors affecting Options premium * Exchange traded options   **Call and Put options. (Theory and numerical). Options Trading Strategies:**   * Uncovered * Covered * Spread * Combination * **Put-Call Parity: (Theory and numerical).** * Risk free security * Put-call relationship * **Binomial Options Pricing Model: (Theory and numerical).** * Binomial Options Pricing model for call and put | 10 | 17 |
|  | options   * Single period and two-period binomial options pricing model |  |  |
| **IV** | * **Black-Scholes Options Pricing model: (Theory and numerical).** * Stock price behaviour * Assumptions in Black-Scholes model * Black-Scholes model for pricing call and put options   **Greeks in Options (only theory):**   * Risks in options trading * Characteristics of options hedging * Greeks in options hedging: delta, gamma, theta, vega, rho.   **SWAPS (Only theory):**   * Swaps: meaning, types, terminologies * Forward swaps * Swaptions * Equity swaps * Commodity swaps | 10 | 17 |
| **V** | **Practical:**   * Analysing Various Derivative Contract Specifications from Exchanges. * Mark to Market Margin Calculation on Real time data from Exchanges. * Understanding the trading and settlement process and other documentary requirements at Brokers’ office to open the trading account. * Calculating the futures and options price with cost of carry, binomial and BS Models on real time data from Exchange & analysing them with current market price. * Forming of different futures and options trading strategies with the real time data from Exchange. * Forming of hedging with real time data from commodities and currency Exchanges. | --- | (30 marks CEC) |

1. **Pedagogy:**
   * ICT enabled Classroom teaching
   * Case study
   * Practical / live assignment
   * Interactive class room discussions

# Evaluation:

Students shall be evaluated on the following components:

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| **A** | **Internal Evaluation** | **(Internal Assessment- 50 Marks)** |
| * Continuous Evaluation Component | 30 marks |
|  | * Class Presence & Participation | 10 marks |
| * Quiz | 10 marks |
| **B** | **Mid-Semester examination** | **(Internal Assessment-30 Marks)** |
| **C** | **End –Semester Examination** | **(External Assessment-70 Marks)** |

# Reference Books:

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| --- | --- | --- | --- | --- |
| **No.** | **Author** | **Name of the Book** | **Publisher** | **Year of**  **Publication / Edition** |
| 1 | Sundaram  Janakiramanan | Derivatives and Risk  Management | Pearson  Education | 2011 / 1st |
| 2 | Rajiv Srivastava | Derivatives & Risk  Management | Oxford  University | 2014 / 2nd |
| 3 | R. Madhumathi, M.  Ranganatham | Derivatives & Risk  Management | Pearson | 2014 / 2nd |
| 4 | John C. Hull | Fundamentals of Futures and Options  Market | Pearson | 2016 / 8th |
| 5 | Verma | Derivatives & Risk  Management | Tata McGraw  hill | 2008 |
| 6 | Vohra & Bagri | Futures and  Options | McGraw Hill | 2017 / 2nd |
| 7 | David A. Dubofsky, Thomas  W. Miler | Derivatives:  Valuation and Risk Management | Oxford  University Press | Latest Edition |
| 8 | A. Maheshwari, D. Chugh | Financial Derivatives | Pearson | 2012 / 1st |

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

# List of Journals/Periodicals/Magazines/Newspapers / Web resources, etc.

1. Indian Journal of Finance
2. International Journal of Financial Markets and Derivatives
3. Business Standard
4. The Economic Times
5. Financial Express
6. NSE & BSE, SEBI, FMC, RBI Websites
7. ICFAI journal of Derivative Market
8. Business Today
9. Business India
10. Business World
11. Finance India
12. Treasury Management
13. Financial Risk Management