**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:

|  |  |
| --- | --- |
| **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:

|  |  |  |  |
| --- | --- | --- | --- |
| **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:

|  |  |  |
| --- | --- | --- |
| **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:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Author** | **Name of the Book** | **Publisher** | **Year of****Publication / Edition** |
| 1 | SundaramJanakiramanan | Derivatives and RiskManagement | PearsonEducation | 2011 / 1st |
| 2 | Rajiv Srivastava | Derivatives & RiskManagement | OxfordUniversity | 2014 / 2nd |
| 3 | R. Madhumathi, M.Ranganatham | Derivatives & RiskManagement | Pearson | 2014 / 2nd |
| 4 | John C. Hull | Fundamentals of Futures and OptionsMarket | Pearson | 2016 / 8th |
| 5 | Verma | Derivatives & RiskManagement | Tata McGrawhill | 2008 |
| 6 | Vohra & Bagri | Futures andOptions | McGraw Hill | 2017 / 2nd |
| 7 | David A. Dubofsky, ThomasW. Miler | Derivatives:Valuation and Risk Management | OxfordUniversity 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