MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act,1956

COURSE CONTENT

FINANCIAL DERIVATIVES AND RISK MANAGEMENT								
IV SEMESTER								
Course Code	**Category**	**Hours/Week**			**Credits**	**Maximum Marks**		
		L	**T**	**P**	**C**	**CIE**	**SEE**	**Total**
20MBA027F	**Professional Elective**	4	-	-	4	30	70	100
Contact Classes:60	**Tutorial Classes:** Nil	**Practical Classes:** Nil				**Total Classes:** 60		
Prerequisite: Basic concepts of Financial Derivatives and Risk Management								

COURSE OVERVIEW:

Financial Derivatives and Risk Management is a specialized course that focuses on understanding derivative instruments and their role in managing financial risks. It equips learners with the knowledge and skills to identify, measure, and hedge risks arising from fluctuations in interest rates, exchange rates, stock prices, and commodity prices.

COURSE OBJECTIVES:

- Understand the fundamental concepts, types, and functions of financial derivatives in modern financial markets.
- Analyze the pricing and valuation of derivative instruments such as forwards, futures, options, and swaps.
- Evaluate different types of financial risks and techniques used for measuring and managing these risks.
- Develop the ability to design and implement effective hedging strategies using derivative instruments.
- Apply derivative-based risk management tools in real-world financial decision-making and portfolio management.

COURSE OUTCOMES: After Completion of the course, students should be able to

1. analyze the fundamentals of risk management, including identifying, measuring, and modeling different types of organizational risks.
2. apply various risk management tools and regulatory frameworks to measure specific risks like interest rate, market, and credit risk.
3. calculate the pricing of forward and future contracts for various assets while considering the impact of market imperfections.
4. evaluate different option strategies and their valuation, using models like the Black-Scholes and Binomial Model.
5. construct and value different types of swaps, including interest rate, currency, equity, and commodity swaps.

UNIT-I Introduction to Risk Management

Risk Management Overview - Types of Risks -Impact of risk on organizations- scope of risk management- Risk Management Levels, Risk management process - risk models- Risk identification and measurement

UNIT-II Risk Management and Measurement

Risk Management Tools, Regulatory Framework - Capital Adequacy requirements - interest rate risk, liquidity risk, Market risk, credit risk, exchange rate risk, Value at Risk (VAR), Cash Flow at Risk (CAR).

UNIT-III Risk Management Techniques

Pricing Forward Contracts, Foreign Currency Forward Contract, Commodity forward contract, Counterparty risk in the forward contract, Future Contracts, Cash Vs Physical Delivery, Pricing Future contracts, The role of expected future spot price, Impact of Financial market imperfections.

UNIT-IV Risk Management Techniques - Options

Structure of Option Market, Types of Options, Option Strategies, exercise price and option values, Principles of Call option Pricing and put option pricing, Put - Call parity theorem, Option values and cash payouts, Option pricing, Arbitrage pricing and the Binomial Model, The Black- Scholes and Mertin Model.

UNIT-V Risk Management Techniques – SWAPS

SWAP Market and its Evolution, Pricing and valuing - Interest rate swap, Pricing and valuing - Currency Swap, Pricing and valuing - Equity Swap, Pricing and valuing – Commodity Swap, Swapations

TEXT BOOKS:

1. R. Madhumathi & M. Ranganatham, Derivatives and Risk Management, Pearson, 2012.
2. Don M Chance, Robert Brooks, An Introduction to Derivatives and Risk Management, 9e, 2013.

REFERENCE BOOKS:

1. Greorge E Rejda, Principles of Risk Management and Insurance, Pearson,2005.
2. Rene M. Stulz, Risk Management & Derivatives, Cengage Learning, 2003.
3. Jayanth Rama Varma, ―Derivatives and Risk Management‖, TMH.

ELECTRONIC RESOURCES:

- http://www.ebooks directory.com
- http://Campus guides.lib.utah.edu
- http://www.bookboon.com
- http://www.freemagagement.com

MATERIALS ONLINE:

1. Course template
2. Tutorial question bank
3. Tech talk and Concept Video topics
4. Open-ended experiments
5. Definitions and terminology
6. Assignments

7. Model question paper – I
8. Model question paper – II
9. Lecture notes
10. PowerPoint presentation
11. Drishya Siksha Sangrah (DSS) Videos