



Dr. V. N. Bedekar Institute of Management, Thane
Teaching Plan (MMS)
Academic Year (2019-2020)

Programme Name: MMS

Semester: III

Period: 1 AUG- 31-OCT

Course Code :MMS-1-C-03

Name of the subject: Derivative and Risk Mangement Maximum marks: 100 (60+40)

No. of Sessions: 14

Name of the Faculty: Dr, Meenakshi Malhotra

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Program Outcomes (PO)

- 1.Nurture leadership skills, team-membership skills and mutual trust.
- 2.Demonstrate decision-making ability.
- 3.Ability to develop culture of technology-usage.
- 4.Inculcate social sensitivity among students.
- 5.Integrate and apply business knowledge and management techniques for problem-solving / analytical skills.

Course Outcomes (CO)

1. Applying directional and non directional option strategies for risk management
2. Analyse the pricing and valuation of derivatives using Binomial and Black Scholes model.
3. Evaluate the risk management and market volatility using greeks in derivative market.
4. Understand the process of daily and final clearing , settlement process of market

Reference Books:

R1: Hull John C. - Options, Futures and other derivatives

R2: Shrivastava- Derivatives and Risk Management

R3: Dr. Manu Sharma- Financial Derivatives A Case Study Based Learning

Websites:

1. www.nseindia.com
2. www.investing.com
3. www.snapalphacapitalmind.com

A. Plan:

<u>Session No.</u>	<u>Pl. Date</u>	<u>Topic</u>	<u>Ref. Study Material</u>	<u>Course Outcomes</u>
<u>1</u>		Introduction to Derivatives Economic functions of derivatives, application of derivatives – for risk management and speculation (Leveraging), Basic terms and properties of options.	R1 Chap 1 http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26 https://www.nseindia.com/ Case: How to hedge your investments in stocks using derivatives	Understanding the basics of derivatives markets



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			Using futures and options you can limit your risks associated with investments in stocks.	
<u>2</u>		Properties of futures and forwards. Forwards and Futures Pricing and valuation - futures and forwards.	R3 CHAP 7 http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26 https://www.nseindia.com/ Case: 'Cash & Carry Arbitrage'	Understanding the process of pricing and valuation of forwards and futures
<u>3</u>		Risk management using futures. Introduction to currencies, commodity and interest rate futures.	R1 Chap 6 https://www.investopedia.com/terms/i/interestrategyfuture.asp Case: Hedging with Long futures Case: Hedging with short futures	Apply the risk management Hedging strategies using futures
<u>4</u>		Mechanics and Properties of Options Co-relation with underlying assets, boundary conditions for options.	Options Trading Strategies Module-NSE http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26	Understanding mechanics of options
5		Put-call parity and its interpretation, synthetic options and risk free arbitrage	Options Trading (Advanced) Module- NSE Options Trading Strategies Module-NSE https://www.discoveroptions.com/mixed/content/education/articles/putcallparity.html Case: Synthetic long of Bank Nifty Caselet: Put call parity	Understanding and applying the concept of synthetic options
6		Option Trading Strategies Directional strategies (Bull call spread, Bear put spread, Ladder, Ratio spreads), Non-directional strategy (butterfly, condor).	R3 Chap:5 Module-NSE Case: Election 2019 strategy INTERNAL TEST	Apply different directional and non directional option strategies
7		Volatility based strategies (Straddle, Strangle, Calendar	R3 Chap: 5 Options Trading Strategies	Apply various volatile option strategies



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		Spread), Hedging strategies (Protective put, covered call).	Module-NSE http://www.theoptionsguide.com/condor.aspx Case: Bank Nifty 29 nov Covered call. Article: Use of Calendar Spreads on Nifty to play Volatility	
8		Introduction to Options Valuation Binominal Model for valuation, risk neutral probabilities and their interpretation, binomial model's application for American options where the underlying pays the dividend.	R1 Chap 11 https://corporatefinanceinstitute.com/resources/knowledge/valuation/option-pricing-models/ Case: Single and Double Binomial model	Valuations of options and creating scenario analysis using Excel
9		Black and Scholes Model, log – normal distribution, interpreting the B & S formula, seeing options sensitivity to different variable.	R1 Chap : 13 http://www.optiontradingpedia.com/free_black_scholes_model.htm https://corporatefinanceinstitute.com/resources/knowledge/valuation/option-pricing-models/	Valuations of options and creating scenario analysis using Excel
10		Risk Management Options sensitivity to the underlying, volatility, strike price, interest rate, time to expiration. Scenario analysis. Risk management using Greeks- Delta, Theta, Vega and Gamma risks of options.	R1 Chap 17 https://www.quantinsti.com/blog/the-greeks-in-options-delta-gamma-theta-and-vega/ Case: Live market from economic times	Understanding risk assessment methods and asseing the greeks to formulate strategies
11		Understanding options Greeks for various trading strategies (volatility and directional spreads), delta / dynamic hedging and relating the cost of Delta.	R1 Chap 17 http://www.optiontradingpedia.com/delta_neutral_trading.htm Case: Live market from economic times	Understanding Options Greeks for formulation of startegies
12		Options Volatility Historical and implied volatility, volatility smile, term structure of volatility, some advance models of volatility estimation.	R1 Chap 20 https://www.investopedia.com/university/optionvolatility/volatility2.asp Case: Tata Steel Historic Volatility	Understanding and calculating volatility



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13		Value at risk, historical simulation, model building approach, stress testing and back testing.	R1 Chap 21 https://www.investopedia.com/terms/s/stresstesting.asp https://www.investopedia.com/articles/04/092904.asp Case: Portfolio building using historic simulation INTERNAL TEST	Analyze the Volatility and its relation to demand and supply of options
14		Trading, Clearing and Settlement in Derivatives Markets Meaning and concept, SEBI guidelines, Trading mechanism, learning mechanism role of NSCCL, settlement mechanism, types of settlement, accounting and taxation aspect of derivatives trade.	NSE module https://www.nseindia.com/	Understanding the process of trading, clearing and settlement

B. Practical Approach: Other activities

Sr. No.	Activity Name	Topic Coverd	Learning outcomes	Source
1	Academic Projects	Dummy Portfolio	Actual practical experience of trading and investment	
2	Use of Economic Times	Options Stratgies and Daily market movement	Practical Knowledge and increase in class participation	https://economictimes.indiatimes.com/
3	Business Quiz / Business News sharing	Trading and settlement in NSE, Greeks, Derivative Knowledge	Practical Knowledge and increase in class participation	<u>Nse Modules</u>



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4	Videos / Simulation	Options, Derivatives, Valuation	Easy learning and concept clarity for students	1. Warren Buffett- Investment Advice & Strategy - #MentorMeWarren 2. https://www.youtube.com/watch?v=FLGRPYAtReo 3. Khan Academy
5	Use of Softwares and Labs	Portfolio development	Live Trading	https://www.moneycontrol.com/ https://login.axisdirect.in/
6	Presentation By students	Option Strategies	Practical Knowledge and improvement in presentation skills.	

C. Innovative pedagogy adopted:

Students are required to build 7 strategies within a duration of 15 days. They will be required to maintain the record of P/L account. At the end they will be required to present it in class. The Academic project will help them to have a live experience with derivative trading. This will help them to understand the market better.

Live cases in the class for example elections 2019 like Strategies like butterfly are analysed, Economic Times strategies analysis.

Prepared by:
Faculty

Reviewed by:
Specialisation

Approved by:
ADC

Date:

Date:

Date:

A. Execution:

<u>Session No.</u>	<u>Actual Date</u>	<u>Topic Covered</u>	<u>Attendance %</u>	<u>Evaluation Method</u>	<u>Case Study Ref.</u>	<u>Quiz Ref.</u>	<u>CR Sign</u>



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B. Evaluation:

Component	Details	Marks
Presentation & Viva	Mandatory	5+5
Class Test (3 for MMS)	Mandatory (MCQ, Descriptive,. Etc)	20
Assignments / Others	Mandatory	5
Participation/Attendance	Mandatory	5
Final Exam	Mandatory	60

C. Student Performance Analysis:

<u>Avg. Attendance</u>	<u>Avg. Internal Marks</u>	<u>% Failed in Internals</u>	<u>Avg. Final Marks</u>	<u>% Failed in Final</u>	<u>No. of best students > 80%</u>	<u>No. of students needs improvement</u>

D. Attainment:

	CO1	CO2	CO3	CO4
PO1				
PO2	✓			
PO3				
PO4				
PO5		✓	✓	✓

Comments / Suggestions / Recommendations:



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Suggestions (if any) to students on subject related Certificate/Diploma or Add-on program: -

NSE Certified Capital Market Professional (NCCMP) Course

Signature of Faculty

Signature of the Co-ordinator / ADC