



**Dr. V. N. Bedekar Institute of Management Studies, Thane**  
**Teaching Learning Plan - MMS**  
**Academic Year: 2020-2021**

Programme Name: MMS Semester: III Period: August 2020 – December 2020  
Course Code: MMS-3-Fin-C-03

Name of the subject: Derivative and Risk Management Maximum marks: 100 (60+40)  
No. of Sessions: 14

Name of the Faculty: Dr, Meenakshi Malhotra  
Mobile No: 8054498839

Email: mmalhotra@vpmthane.org

<b>Program Outcomes (PO)</b>	<b>Course Outcomes (CO)</b>
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.	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](http://www.nseindia.com)
2. [www.investing.com](http://www.investing.com)
3. [www.snapalphacapitalmind.com](http://www.snapalphacapitalmind.com)

**A. Plan:**

<b><u>Sess ion No.</u></b>	<b><u>Pl. Date</u></b>	<b><u>Topic</u></b>	<b><u>Ref. Study Material</u></b>	<b><u>Course Outcomes</u></b>
<b><u>1</u></b>	7 <sup>th</sup> Aug ust	Introduction to Derivatives Economic functions of derivatives, application of derivatives – for risk management and speculation (Leveraging), Basic terms and properties of	R1 Chap 1 <a href="http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26">http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26</a> <a href="https://www.nseindia.com/">https://www.nseindia.com/</a>	Understanding the basics of derivatives markets



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		options.	Case: How to hedge your investments in stocks using derivatives Using futures and options you can limit your risks associated with investments in stocks.	
<b>2</b>	10 <sup>th</sup> Aug ust	Properties of futures and forwards. Forwards and Futures Pricing and valuation - futures and forwards.	R3 CHAP 7 <a href="http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26">http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26</a> <a href="https://www.nseindia.com/">https://www.nseindia.com/</a> Case: 'Cash & Carry Arbitrage'	Understanding the process of pricing and valuation of forwards and futures
<b>3</b>	17 <sup>th</sup> Aug ust	Risk management using futures. Introduction to currencies, commodity and interest rate futures.	R1 Chap 6 <a href="https://www.investopedia.com/terms/i/interestratefuture.asp">https://www.investopedia.com/terms/i/interestratefuture.asp</a> Case: Hedging with Long futures Case: Hedging with short futures	Apply the risk management Hedging strategies using futures
<b>4</b>	24 <sup>th</sup> Aug ust	Mechanics and Properties of Options Co-relation with underlying assets, boundary conditions for options.	Options Trading Strategies Module-NSE <a href="http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26">http://www.moneycontrol.com/india/fnoquote/hcl-technologies/HCL02/2018-07-26</a>	Understanding mechanics of options
<b>5</b>	31 <sup>st</sup> Aug ust	Put-call parity and its interpretation, synthetic options and risk free arbitrage	Options Trading (Advanced) Module-NSE Options Trading Strategies Module-NSE <a href="https://www.discoveroptions.com/mixed/content/education/articles/putcallparity.html">https://www.discoveroptions.com/mixed/content/education/articles/putcallparity.html</a> Case: Synthetic long of Bank Nifty Caselet: Put call parity	Understanding and applying the concept of synthetic options



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6	7 <sup>th</sup> Sept emb er	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 startegy	Apply different directional and non directional option strategies
7	14 <sup>th</sup> Sept emb er	Volatility based strategies (Straddle, Strangle, Calendar Spread), Hedging strategies (Protective put, covered call). INTERNAL TEST	R3 Chap: 5 Options Trading Strategies Module-NSE <a href="http://www.theoptionsguide.com/condor.aspx">http://www.theoptions guide.com/condor.aspx</a>  Case: Bank Nifty 29 nov Covered call. Article: Use of Calendar Spreads on Nifty to play Volatility	Apply various volatile option strategies
8	21 <sup>st</sup> Sept emb er	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 <a href="https://corporatefinanceinstitute.com/resources/knowledge/valuation/option-pricing-models/">https://corporatefinanc einstitute.com/resourc es/knowledge/valuatio n/option-pricing- models/</a> Case: Single and Double Binomial model	Calculating the values of call and put premium and hedging ratio
9	28 <sup>th</sup> Sept emb er	Black and Scholes Model, log – normal distribution, interpreting the B & S formula, seeing options sensitivity to different variable.	R1 Chap : 13 <a href="http://www.optiontradingpedia.com/free_black_scholes_model.htm">http://www.optiontradi ngpedia.com/free_blac k_scholes_model.htm</a> <a href="https://corporatefinanceinstitute.com/resources/knowledge/valuation/option-pricing-models/">https://corporatefinanc einstitute.com/resourc es/knowledge/valuatio n/option-pricing- models/</a>	Calculating the values of call and put premium
10	12 <sup>th</sup> Octo ber	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 <a href="https://www.quantinsti.com/blog/the-greeks-in-options-delta-gamma-theta-and-vega/">https://www.quantinsti .com/blog/the-greeks- in-options-delta- gamma-theta-and- vega/</a> Case: Live market from economic times	Understanding risk assessment methods and asseing the greeks to formulate strategies



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11	19 <sup>th</sup> Octo ber	Understanding options Greeks for various trading strategies (volatility and directional spreads), delta / dynamic hedging and relating the cost of Delta.	R1 Chap 17 <a href="http://www.optiontradingpedia.com/delta_neutral_trading.htm">http://www.optiontradingpedia.com/delta_neutral_trading.htm</a> Case: Live market from economic times	Understanding Options Greeks for formulation of startegies
12	26 <sup>th</sup> Octo ber	Options Volatility Historical and implied volatility, volatility smile, term structure of volatility, some advance models of volatility estimation.	R1 Chap 20 <a href="https://www.investopedia.com/university/optionvolatility/volatility2.asp">https://www.investopedia.com/university/optionvolatility/volatility2.asp</a> Case: Tata Steel Historic Volatility	Understanding and calculating volatility
13	2 <sup>nd</sup> Nov ember	Value at risk, historical simulation, model building approach, stress testing and back testing. 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.	R1 Chap 21 <a href="https://www.investopedia.com/terms/s/stress_testing.asp">https://www.investopedia.com/terms/s/stress_testing.asp</a> <a href="https://www.investopedia.com/articles/04/092904.asp">https://www.investopedia.com/articles/04/092904.asp</a> NSE module <a href="https://www.nseindia.com/">https://www.nseindia.com/</a>  Case: Portfolio buiding using historic simulation INTERNAL TEST	Analyze the Volatility and its relation to demand and supply of options Understanding the process of trading, clearing and settlement



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**B. Practical Approach: Other activities**

<b>Sr. No.</b>	<b>Activity Name</b>	<b>Topic Coverd</b>	<b>Learning outcomes</b>	<b>Source</b>
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	<a href="https://economictimes.indiatimes.com/">https://economictimes.indiatimes.com/</a>
3	Business Quiz / Business News sharing	Trading and settlement in NSE, Greeks, Derivative Knowledge	Practical Knowledge and increase in class participation	<b><u>Nse Modules</u></b>
4	Videos / Simulation	Options, Derivatives, Valuation	Easy learning and concept clarity for students	1. Warren Buffett- Investment Advice & Strategy #MentorMeWarren 2. <a href="https://www.youtube.com/watch?v=FLGRPYAt">https://www.youtube.com/watch?v=FLGRPYAt</a> 3. Khan Academy
5	Use of Softwares and Labs	Portfolio development	Live Trading	<a href="https://www.moneycontrol.com/">https://www.moneycontrol.com/</a> <a href="https://login.axisdirect.in/">https://login.axisdirect.in/</a>
6	Presentation By students	Option Strategies	Practical Knowledge and improvement in presentation skills.	



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**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:**

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



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**B. Evaluation:**

<b>Component</b>	<b>Details</b>	<b>Marks</b>
Presentations/ Viva	Mandatory	5+5
Class Test	Mandatory (MCQ, Descriptive, . Etc)	20
Assignments / Others	Mandatory	5
Participation/Attendance	Mandatory	5
Final Exam	Mandatory	60

**Comments / Suggestions / Recommendations:**

**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**