



Dr. V. N. Bedekar Institute of Management, Thane
Teaching Plan (MMS/PGDM)
Academic Year (2016-2017)

Programme Name: MMS: SEMESTER-III

Name of the Course: DERIVATIVES AND RISK MANAGEMENT

Maximum marks:100

No. of Sessions: 15

Name of the Faculty: SHAIVALYA THAKER

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Learning Objectives:

Key objectives of the course is to understand the following aspects of Equity derivatives market:

- concepts and terminologies
 - operational
 - regulatory
 - valuation
 - applications
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Reference Books/suggested readings:

- FUTURES AND OPTIONS : CONCEPTS AND APPLICATIONS
by Sunil K Parameswaran
- FUTURES AND OPTIONS
by A N Sridhar
- COMMODITIES AND FINANCIAL DERIVATIVES
by S Kevin
- DERIVATIVES AND RISK MANAGEMENT
by Jayanth Rama Varma
- OPTIONS, FUTURES AND OTHER DERIVATIVES
by John Hull
- FINANCIAL DERIVATIVES : A CASE STUDY BASED LEARNING
by Dr. Manu Sharma

Websites:

www.sebi.gov.in

www.nseindia.com

www.bseindia.com

DR VN BRIMS/REC/ACA/05



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Plan:

Session No	Topics to be covered	Books referred/ Recommended/ References-Print/Articles/ News/Research papers/ Online database/ Software /Simulations used	Learning outcomes	Evaluation of Students understanding by MCQs, Quiz, Short Test
1	Introduction to Derivatives Application of Derivatives – for Risk Management & Speculation(Leveraging) Basic terms & properties of Options/Futures/Forwards	BOOKS REFEREED/RECOMMENDED ABOVE , DAILY FINANCIAL NEWSPAPERS, WEBSITES REFERRED ABOVE ETC.	UNDERSTANDING OF DERIVATIVES	MCQ/QUIZ/DISCUSSION ETC.
2	Futures & Forwards <ul style="list-style-type: none"> • Pricing and Valuation of Futures/Forwards • Risk Management using Futures • Basis risk 	-----"-----	PRICING AND APPLICATIONS OF FORWARD & FUTURES	-----"-----



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	<ul style="list-style-type: none"> • Introduction to Currencies/Commodity/Interest rate futures 			
3 & 4	<p>Mechanics and properties of Options</p> <ul style="list-style-type: none"> • Boundary conditions for Options • Put-call parity and its interpretation • Options sensitivity to the <ul style="list-style-type: none"> ○ Underlying ○ Volatility ○ Strike Price ○ Interest rate ○ Time to expiration 	-----"	UNDERSTANDING OF OPTIONS	-----"
5	<p>Basic Options strategies</p>	-----"	UNDERSTANDING OF OPTION STRATEGIES	-----"



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6	<p>Trading</p> <ul style="list-style-type: none"> • Directional Strategies(A Call/Put/Bull Call/Spread etc.) • Volatility based strategies (Straddle/Strangle/Calendar Spread) 	-----"	UNDERSTANDING OF ADVANCED OPTION STRATEGIES	-----"
7 & 8	<p>Risk Management</p> <ul style="list-style-type: none"> • Protective Put • Covered Call 	-----"	KNOWLEDGE OF RISK MANAGEMENT USING OPTIONS	-----"
9 & 10	<p>Introduction to Option Valuation</p> <ul style="list-style-type: none"> • Binomial Model for Valuation • Risk Neutral probabilities and their interpretation • Binomial Model's application for American options where the underlying pays the dividend • Black & Scholes Model • Understanding Weiner & Markov 	-----"	UNDERSTANDING OPTION PRICING	-----"



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	<p>processes</p> <ul style="list-style-type: none"> • Log – Normal distribution • ITO – LEMMA & its application in Stochastic processes • Using ITO – LEMMA – to derive Black & Scholes Model for stock/currency options • Interpreting the B & S formula • Seeing Options sensitivity to different variable using Excel 			
11 & 12	<p>Underlying Options Greeks</p> <p>Delta/Theta/Vega & Gamma risks of options</p> <ul style="list-style-type: none"> • Understanding option Greeks for various trading strategies(volatility & Directional Spreads) 	-----"	<p>UNDERSTANDING OPTION GREEKS</p>	-----"



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	<ul style="list-style-type: none"> • Delta/Dynamic Hedging and relating the cost of Delta hedging with the option price determined by Black & Scholes Model • Elasticity(Beta) of an option in the CAPM framework. This would "clarify" the "risk return" profile (which is often misunderstood for various options trading strategies) 			
13 &14	<p>Options Volatility</p> <ul style="list-style-type: none"> • Historical & Implied Volatility • Volatility Smile • Term structure of Volatility • Some advance Models of volatility estimation • Value at risk • Historical simulation 	-----"	UNDERSTANDING OPTION VOLATILITY	-----"



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	<ul style="list-style-type: none"> • Model Building Approach • Stress Testing & Back Testing 			
15	Case studies and Presentations	-----"-----	SOLVING CASE STUDIES AND PRESENTATION SKILLS	-----"-----

2. Practical Approach : Other activities (Atleast 4 distinct activities)

Sr. No.	Activity Name	Topic Coverd	Learning outcomes	Source
1	Role Play			
2	Industry Visit			
3	Academic Projects(DERIVATIVES)	<u>EQUITY/EQUITY INDEX DERIVATIVES</u>	<u>REPORT WRITING SKILLS</u>	<u>BOOKS/NEWSPAPERS ETC.</u>
4	Book Review			
5	Group Discussion			
6	Business Quiz / Business News sharing(FIN. NEWS)	<u>DERIVATIVES</u>	<u>READING OF FINANCIAL NEWSPAPERS</u>	<u>FINANCIAL NEWSPAPERS</u>
7	Videos / Simulation (LIVE MARKET UNDERSTANDING)	<u>DERIVATIVES</u>	<u>PRACTICAL ASPECTS OF DERIVATIVES</u>	<u>EXCHANGE WEBSITES</u>
8	Use of Softwares and Labs			
9	Any other activity (QUIZ/MCQ)	<u>DERIVATIVES</u>	<u>UNDERSTANDING DERIVATIVES MARKET</u>	<u>BOOKS/NEWSPAPERS /WEBSITES ETC.</u>



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Evaluation:

I) Internal:

Component	Details	Marks
Class Test	MCQ	20
Presentation	PROJECT	10
Case Study		
Participation	INTERACTION	5
Others	ATTENDANCE	5

Signature of Faculty

Signature of the Co-ordinator