

Name of Institute: Indus Institute of Management Studies

Name of Faculty: Nirali Dave

Course code: IMB0721

Course name: Financial Derivatives

Pre-requisites:

Credit points: 3

Offered Semester: IMBA VII

Course Coordinator (weeks 1 - 15)

Full Name: Nirali Parth Dave

Department with siting location: Management

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Email: niralidave.mba@indusuni.ac.in

Consultation times: 2.00 PM to 4.00 PM

Course Lecturer (weeks 1 - 15)

Full name: Nirali Parth Dave

Department with siting location: Management

Telephone: 9428609964

Email: niralidave.mba@indusuni.ac.in

Consultation times: 2.00 PM to 4.00 PM

Students will be contacted throughout the Session via Mail with important information relating to this Course.

Course Objectives

By participating in and understanding all facets of this Course a student will:

- to equip students with the ability to apply stock market basics to Indian Derivative market. Financial Derivatives are discussed in terms of their valuation, analysis & application for hedging, speculation & arbitrage.
- Students are appraised with the recent innovations in derivatives in India unlike other countries. At the end of the course, they are expected to have learnt the mechanics, valuation & trading strategies of derivative market. They are also required to frame their own trading strategies in this volatile market.

Course Outcomes (CO)

Co1 Have a good understanding of derivative securities

Co2 Acquire knowledge of how forward contracts, futures contracts, swaps and options work, how they are used and how they are priced

Co3 Be able to describe and explain the fundamental features of a range of key financial derivative instruments

Co4 Be able to decide which securities to use for hedging and/or speculative purposes

Co5 Knowledge on different types of trading strategies.

Co6 Knowledge on the exotic options, Greek options and commodity derivatives.

CO- PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6
CO 1	1	2	-	-	-	1
CO 2	-	-	-	-	-	-
CO 3	1	1	-	2	-	2
CO 4	-	2	-	2	-	-
CO 5	3	-	-	2	-	1
CO 6	-	-	-	-	-	-

Course Outline

Course Content:

Unit- 1 Introduction to risk management ,introduction to derivatives, Derivative market- (derivative exchanges, trading process, margins, clearing and settlement, regulatory framework) , Factors contributing to the growth of derivatives - functions of derivative markets - Exchange traded versus OTC derivatives -traders in derivatives markets - Derivatives market in India .

Unit- 2 Futures and forwards - differences-valuation of futures, valuation of long and short forward contract. Mechanics of buying & selling futures, Margins, Hedging using futures -specification of futures - Commodity futures, Index futures, interest rate futures – arbitrage opportunities.

Unit- 3 Financial Swaps - features and uses of swaps - Mechanics of interest rate swaps – valuation of interest rate swaps – currency swaps – valuation of currency swaps

Unit- 4 Options: Types of options, option pricing, factors affecting option pricing – call and put options on dividend and non-dividend paying stocks put-call parity - mechanics of options -stock options - options on stock index - options on futures – interest rate options. Concept of exotic option. Hedging & Trading strategies involving options, valuation of option: basic model, one step binomial model, Black and Scholes Model, option Greeks. Arbitrage profits in options.

Unit-5

Commodity derivatives: commodity futures market-exchanges for commodity futures in India, Forward Market Commissions and regulation-commodities traded – trading and settlements – physical delivery of commodities

Interest rate markets - Type of rates, Zero rates, Bond pricing, Determining Zero rates, Forward rules, Forward rate agreements (FRA), Treasury bond & Treasury note futures, Interest rate derivatives.

Method of delivery

(Face to face lectures, self study material, Active Learning Techniques)

Study time

(3 Hours Per Week)

Blooms Taxonomy and Knowledge retention (For reference)

(Blooms taxonomy has been given for reference)

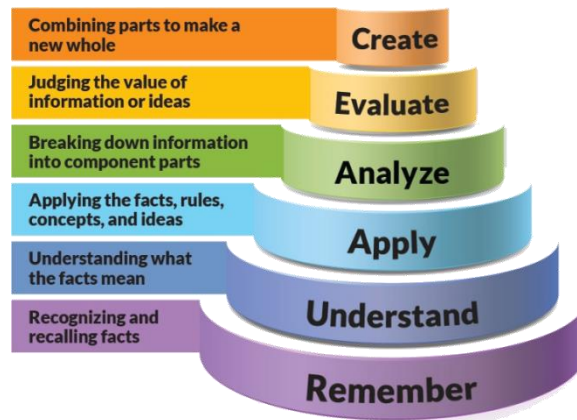


Figure 1: Blooms Taxonomy

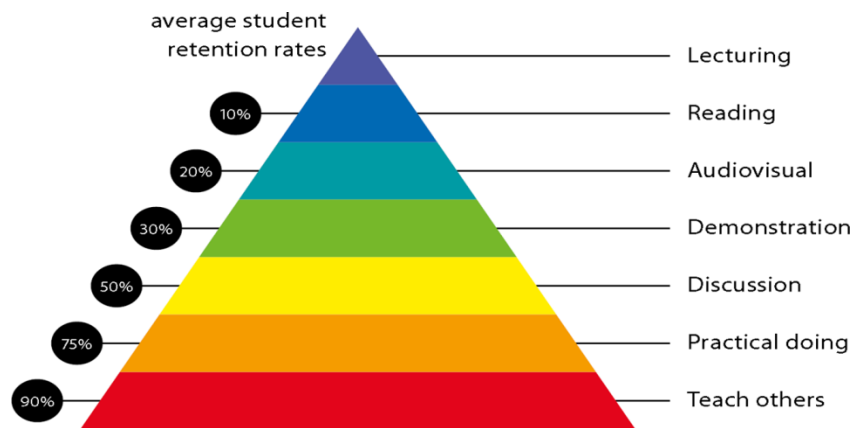


Figure 2: Knowledge retention

Graduate Qualities and Capabilities covered
 (Qualities graduates harness crediting this Course)

General Graduate Qualities	Specific Department of Management Graduate Capabilities
Informed Disciplinary Knowledge Project Management	1 Professional knowledge, grounding & awareness
Independent learners Solution to the problem's adjustments	2 Information literacy, gathering & processing
Thinking • critical • creative • practical	4 Problem solving skills
Responsible Learning • capacity for life-long learning • flexibility • adaptability	10 Sustainability, societal &

Responsible Learning • capacity for life-long learning • flexibility • adaptability	10 Sustainability, societal & environmental impact
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Practical work:

(Students Shall be given assignments to demonstrate the following skills)

1. ASSIGNMENT -1 Theory and sums questions from unit 1 and unit 2

Lecture/tutorial times

Lecture	Monday	2.05-3.05pm	LH36
Lecture/Tutorial	Wednesday	2.05-3.05pm	LH36
Lecture	Friday	2.05-3.05pm	LH36

Attendance Requirements

The University norms states that it is the responsibility of students to attend all lectures, tutorials, seminars and practical work as stipulated in the Course outline. Minimum attendance requirement as per university norms is compulsory for being eligible for mid and end semester examinations.

Details of referencing system to be used in written work

Text books

1. Vohra& Bagri, *Futures and Options*, Tata McGraw hill, Latest Edition

John C. Hull, *Futures and Option Markets*, Pearson Education, Latest Edition
 Your final course

Example:

Assignment 1	15% (week 4) Objective (1-3)
Attendance	5%
Mid semester	40% (due week 11)
Final exam (<i>closed book</i>)	40%

mark will be calculated from the following:

Bloom's Category	Test	Assignments	Attendance (5)
Marks (out of 60) (Internal Evaluation)	(40)	(15)	
Remember			

Understand		05	
Apply	10		5
Analyze	10		
Evaluate	10		
Create		05	

SUPPLEMENTARY ASSESSMENT

Students who receive an overall mark less than 50% in mid semester or end semester will be considered for supplementary assessment in the respective components (i.e mid semester or end semester) of semester concerned. Students must make themselves available during the supplementary examination period to take up the respective components (mid semester or end semester) and need to obtain the required minimum 50% marks to clear the concerned components.

Practical Work Report/Laboratory Report:

A report on the practical work is due the subsequent week after completion of the class by each group.

Late Work

Late assignments will not be accepted without supporting documentation. Late submission of the reports will result in a deduction of 5% of the maximum mark per calendar day

Format

All assignments must be presented in a neat, legible format with all information sources correctly referenced. **Assignment material handed in throughout the session that is not neat and legible will not be marked and will be returned to the student.**

Retention of Written Work

Written assessment work will be retained by the Course coordinator/lecturer for two weeks after marking to be collected by the students.

University and Faculty Policies

Students should make themselves aware of the University and/or Faculty Policies regarding plagiarism, special consideration, supplementary examinations and other educational issues and student matters.

Plagiarism - Plagiarism is not acceptable and may result in the imposition of severe penalties. Plagiarism is the use of another person's work, or idea, as if it is his or her own - if you have any doubts at all on what constitutes plagiarism, please consult your Course coordinator or lecturer. Plagiarism will be penalized severely.

Do not copy the work of other students.

Do not share your work with other students (except where required for a group activity or assessment)

Course schedule (subject to change)

(Mention quiz, assignment submission, breaks etc as well in the table under the Teaching Learning Activity Column)

Week #	Topic & contents	CO Addressed	Teaching Learning Activity (TLA)
Weeks 1	Introduction to risk management ,introduction to derivatives, Derivative market- (derivative exchanges, trading process, margins, clearing and settlement, regulatory framework) , Factors contributing to the growth of derivatives - functions of derivative markets - Exchange traded versus OTC derivatives -traders in derivatives markets - Derivatives market in India .	CO1	Face to face lecture delivery
Weeks 2	Futures and forwards - differences-valuation of futures, valuation of long and short forward contract. Mechanics of buying & selling futures, Margins,	CO2	Presentation and face to face lecture delivery
Week 3	Hedging using futures specification of futures Commodity futures, Index futures, interest rate futures – arbitrage opportunities.	CO2	Presentation and face to face lecture delivery
Week 4	Financial Swaps - features and uses of swaps - Mechanics of interest rate swaps	CO3	Face to face lecture delivery
Week 5	valuation of interest rate swaps – currency swaps – valuation of currency swaps	CO3	Face to face lecture delivery
Week 6	valuation of interest rate swaps – currency swaps – valuation of currency swaps	CO3	Face to face lecture delivery
Week 7	Introductions to binomial tree, valuing stock options	CO4,CO5	Lecture delivery
Week 8	Options: Types of options, option pricing, factors affecting option pricing – call and put options on dividend and non-dividend paying stocks put-call parity	CO4,CO5	lecture

Week 9	Mechanics of options -stock options - options on stock index - options on futures – interest rate options.	C04	Presentation and face to face lecture delivery
Week 10	Concept of exotic option. Hedging & Trading strategies involving options, Arbitrage profits in options.	C04,C05	Presentation and lecture
Week 11	Mid Sem Exam		
Week 12	Commodity derivatives: commodity futures market-exchanges for commodity futures in India,	C06	Presentation and face to face lecture delivery
Week 13	Forward Market Commissions and regulation-commodities traded – trading and settlements – physical delivery of commodities	C06	Presentation and face to face lecture delivery
Week 14	Interest rate markets - Type of rates, Zero rates, Bond pricing, Determining Zero rates,	C06	Presentation and face to face lecture delivery
Week 15	Forward rules, Forward rate agreements (FRA), Treasury bond & Treasury note futures, Interest rate derivatives.	C06	Presentation and face to face lecture delivery