

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI
INSTRUCTION DIVISION
SECOND SEMESTER 2014-15
Course Handout Part II

Date: 12/01/2016

In addition to Part-I (General Handout for all courses appended to the timetable) this portion gives further specific details regarding the course.

Course No. : FIN F311/ ECON F354
Course Title : Derivatives & Risk Management
Instructor-in-charge : ARUN KUMAR VAISH

1. Scope & Objective:

The objective of the course is to provide knowledge about derivatives and mechanics of derivative market. The course includes understanding of interest rate, term structure, and time value of money, pricing of bonds, computation of yield, bond-price volatility, duration, modified duration and convexity. The course covers option pricing and the variables affecting option pricing. Students are exposed to various types of risks namely Market Risk, Credit Risk, Operational Risk, Liquidity risk & Model Risk.

3. Text book:

Srivastava R. *Derivatives and Risk Management*. Oxford University Press , Second Edition

4. Reference books:

R1. Futures, Options and Other Derivatives by John C Hull, 7th Edition

5. Course Plan:

Lecture No.	Learning Objectives	Topics to be covered	Reference (Chapter number)
1-2	Overview of Derivatives	Types of Business Risk , Derivatives , Distinguishing Features of Hedging with Derivatives, Derivative Products, Types of Derivatives , Participants in Derivative Markets , Functions of Derivative Markets, players and instruments.	Chapter-1+ class notes.
3-5	Time Value of Money	Interest rate, Compounding and Concept of annuity and Perpetuity	class notes.

6-20	Forwards, Futures, Option and Swaps	Pricing and cost of carry in case of future & forwards. Bonds basics and dynamics of bond price. Forward rates and its role in anticipating term structure. Various determinants of bond prices: term, yield and coupon. Binomial option pricing & Black Scholes option pricing formula	Class notes+ Chapter-2-6 and 8-11
21-30	Options Greeks, Risks and their management	Types of risks. Risk management using forward & futures. Hedging.	Class notes+ Chapter-13-16, 20
31-42	Introduction to fixed income securities. Learning relationship between bond price and yield.	Bond Pricing, Duration and convexity. Asset Liability Management and managing the interest rate risk in balance sheet	Class notes

6. Evaluation Scheme:

EC No.	Component	Duration	Weight age	Date, Time & Venue	Nature of Component
1.	Mid-Semester		30	18/3 9:00 - 10:30 AM	OB
2.	Surprise Quizzes-Best 3 of 4		30		CB
3.	Comprehensive		40	12/5 FN	Partially CB

7. **Chamber Consultation Hour:** 11 AM -Wednesday

8. **Notice:** All notices will be displayed on **Economics & Finance Notice Board.**

Instructor-In-Charge