INTERNATIONAL MANAGEMENT INSTITUTE, BHUBANESWAR

POST GRADUATE DIPLOMA IN MANAGEMENT

FN612: Risk Management and Financial Derivatives

CREDIT: Full credit (three credits)

SESSION DURATION: 60 Minutes

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TERM: V
YEAR: 2019
BATCH: PGDM 2018-20

Course Introduction:

This course primarily focuses on how to identify the financial risks that needs to be managed and how the process of risk management can create value for the firm and individuals. The purpose of this course is also to equip the students with the required set of skills to value and to employ options, futures, Swaps and related financial contracts. In order to provide a useful treatment of these topics in an environment that is changing rather rapidly, it is necessary to understand the fundamentals and to study some important applications. The course will provide the students the knowledge about Futures Markets & the characteristics of instruments, including the pricing and use of futures contracts on stock indices and other instruments. The students will learn about Options Markets & the Applications, covering the valuation and use of options, including a discussion on the empirical evidence and dynamic asset allocation strategies and the Swaps, which are Complex Derivatives including Structured Securities. They will learn the use of derivatives in the context of corporate applications.

Learning Outcomes:

- LO1. Understand the concept of Risk and its implications on overall corporate strategy
- LO2. Know what types of risks the corporate is facing and what are the ways to mitigate
- LO3. Know the Market Risks, Implications and how to measure and mitigate these risks
- LO4. Know the Interest Risks and how to measure and mitigate these risks
- LO5. Understand the Credit Risks and concepts related to it
- LO6. Understand and explain the nature of derivatives and describe the trading mechanisms and the key variables that determine their market values.
- LO7. Classify and compare the different types of derivative instruments.
- LO8. Identify and critically evaluate the nature and extent of a company's exposure to stock price risk, commodity price risk, currency risk, interest rate risk and credit risk.
- LO9. Understand and calculate the pricing of Derivatives using models available
- LO10. Explain and demonstrate the application of various hedging strategies and assess their suitability in relation to the identified risk.
- LO11. Discuss and debate the links between credit derivatives and the financial crisis and critically evaluate the validity of some hypotheses explaining the existence of such links.

Course Pedagogy: The course will be delivered through a combination of lectures, PPTs and classroom case discussions. Students are expected to come prepared for the class by reading the prescribed materials. A few relevant cases shall be discussed in the class to strengthen the learning. Power point slides of class lectures and all other relevant material will be made available to students.

Course Readings:
Books

1. Hull, J.C. & Basu, S., Options, Futures and other Derivatives, Pearson Education India, 2010
2. Rene M. Stulz. "Risk management & derivatives". Thomson (I.E.). 2007. (**referred as Stulz** in course outline)
3. Veronesi, P. Fixed Income Securities – Valuation, Risk and Risk Management, Wiley India, 2010
4. Hull, J.C., Risk Management and Financial Institutions, 3rd Edition, Wiley India, 2013 (Low Price Edition).

Course Evaluation criteria (%)

Component	**Weightage**	**Learning outcome mapped**
Quizzes	15%	LO1-LO5, LO8-LO10
Assignment	15%	LO3, LO4, LO8, LO9
Class Participation	15%	LO1-LO11
Group Project	15%	LO10
End-term Exam	40%	LO2-LO10

Plagiarism

We are committed to upholding the highest standards of academic integrity and honesty. Plagiarism is the use of or presentation of ideas, works that are not one's own and which are not common knowledge, without granting credit to the originator. You may refer the already available content just for your reference and to get the basic ideas. Only 20% of such content is acceptable, above that comes under the definition of Plagiarism which is unacceptable in IMI and will be treated seriously. All such cases will be referred to the appropriate body of the Institute for suitable disciplinary action.

Session Plan:

Session	Topics	Learning Outcome	Reading chapter
1, 2	Risk – What are the risks, how to quantify Risks and why?	LO1, LO2	02, 03 (Stulz)
3, 4	Market Risks, Risk Management, Financial Distress	LO2, LO3	04 (Stulz)
5, 6	VaR, Application of VaR, Risk Return Approach	LO2, LO3	04 (Stulz)

7, 8	Risk Measures, CFaR, NPVaR	LO3	04 (Francisco), Reading will be provided
9, 10,	Interest Rate Risks and Inflation, Exchange Rate Risks and the concepts	LO4	05 (Francisco), Reading will be provided
11, 12, 13,	Credit Risk, Measurement, PD, LGD and EAD, Validation of Credit Risk	LO5	10 (Francisco), Reading will be provided
14	Other Risks	LO5	13, 14 (Francisco), Reading will be provided
15, 16	Introduction to Derivatives	LO6	1, 2 (Hull)
17, 18, 19	Futures and Forward Contracts, Forward Rate Agreements, Options Markets & Mechanics, Trading Strategies involving Options	LO6, LO7, LO8	6, 7 (Hull)
20, 21, 22	The Black-Scholes-Merton Model	LO8, LO9	13 (Hull)
23, 24	Binomial Trees for option pricing	LO9	17 (Hull)
25, 26	Interest Rate Swaps & Interest rate risk management, Currency Swaps	LO10	14 (Stulz)
27, 28, 29	Currency derivatives, Mechanics of currency derivatives markets	LO10, L011	12 (Hull)
30	Exotic Options, Credit Default Swaps	LO11	16,17 (Stulz)

Projects –

1. The trading of derivatives on Stock market of India and any other markets of world – Extract the data* from two comparative stock exchanges and study the price movement of an instrument being traded on both the stock exchanges.
2. Possibility of Arbitrage on various platforms.
   *Data Source - Bloomberg