

PGP: Format for Course Outline

- i. **Course title:** Trading Strategies_____
- ii. **Area to which the course belongs:** Finance & Accounting_____
- iii. **Term in which the course is to be offered: Slot XI/XII**_____
- iv. **Instructors' name:** Shonali Gupta_____
- v. **Course credits:** 0.5_____

vi. Introduction:

This course aims to provide an insight into the practical aspects of risk managing and hedging a derivative book. The target audience for this course would be students interested in pursuing a career in capital markets trading or research.

vii. Objective:

The objective of the course is to give students a hands-on experience of trading and working with derivatives from a practitioner's perspective. The goal is to strengthen students' understanding of the concepts and intricacies of derivatives in the financial markets.

viii. Pedagogy:

- 1) Class instruction using live market examples to substantiate theory
- 2) Class participation by forming teams and working on simulations/case studies

ix. Evaluation Scheme:

1) Maintain a shadow trading book (individual) – 50%:

Each student does a thorough analysis of the markets and develops a view based on news/events and macro-economic data indicators. The student then comes up with a set of risk positions that he/she would like to put on with a time horizon of one week. The student calculates the greeks, marks to market and rebalances if needed according to his/her view. Trading performance will be evaluated at the end of the week..

Evaluation based on:

- The ability to form a view based on market information and develop a strategy to express the view under the given risk limits
- Accuracy of greeks calculated, P&L attribution and attention to detail
- The ability to re-hedge and have the foresight to rebalance/close out of a position keeping in view expected market developments

2) Develop a trading strategy (group) – 30%

In teams, pick any one macro market – rates/commodities/equities/currencies. Construct a trading strategy for that market

Evaluation based on:

- Making a good business case for why you like the strategy
- A clear explanation of the time horizon and plan of action intended
- Understanding when this strategy does/ does not work

3) Class participation – 20%

x. Course Books/Reference Materials:

Primary: Options, Futures and Other Derivatives, 7th Ed.: John C. Hull (JCH)

Optional reference:

- Fixed Income Securities, 2nd Ed.: Bruce Tuckman (BT)
- The Atlas of Economic Indicators: Carnes and Slifer (CS)
- Advanced Reading: Volatility and Correlation: Riccardo Rebonato (RR)

xi. Session Plan:

Session No.	Topic	Readings
1	2015 : The year in perspective. Trading opportunities in 2016	https://www.pimco.com/insights/economic-and-market-commentary/cyclical-outlook/central-banks-to-diverge-as-global-economies-converge http://www.blackrock.com/corporate/en-us/literature/whitepaper/bii-2016-outlook-us-version.pdf JCH: Chapter 20
2	Developing market views: Economic indicators and influence on the intraday markets	CS: Unit I & II
3	Developing market views: Central Bank policy communications	http://www.economicprinciples.org/ http://www.hussmanfunds.com/wmc/wmc131021.htm http://www.hoisingtonmgt.com/pdf/HIM2013Q3NP.pdf
4	Constructing a trading strategy	https://www.pimco.com/insights/viewpoints/quantitative-research-and-analytics/the-volatility-risk-premium https://www.pimco.com/insights/viewpoints/quantitative-research-and-analytics/bond-investing-in-a-rising-rate-environment JCH: Chapters 4, 6, 7, 12 & 28
5	Market positioning	http://www.bwater.com/Uploads/FileManager/research/All-Weather/All-Weather-Story.pdf http://on.ft.com/1P5QWno (Sending the above FT article separately in a word file)
6	Market structure	BT: Chapters 17, 18 & 21

7	Understanding Greeks and using Options to trade	JCH: Chapter 13 & 17 Optional : RR, Chapter 3
8	Managing a book's gamma The challenges of hedging an option close to expiry	BT: Chapters 5& 6 Optional : RR Chapter 4
9	Specifying the instantaneous term structure of volatility and correlation	BT: Chapters 9, 10, 11 & 12 Optional : RR, Chapter 5
10	Miscellaneous topics Structured yield enhancement strategies, volatility skews	JCH : Chapter 18 BT : Chapter 19

xii. Pre-requisites & Eligibility:

The course is expected to be highly mathematical in nature. The primary focus area is Fixed Income Markets. The following second-year finance electives are the pre-requisite courses:

1. FORM
2. FIS (R)

xiii. Relationship to other courses:

This course builds upon the concepts taught in FORM and FIS(R)