

FinShiksha

Course Outline

Applied Derivatives

About Document

The purpose of this document is to provide an idea about the content covered in this course. You are also entitled to receive updated content for the next one year. All information has been sourced from publicly available data such as annual reports and news items.

Derivatives is one of the most fascinating and intriguing subject in the financial services domain. Its applications range from risk management to trading, and is one of the faster growing segments within the world of finance. The course aims to demystify the core concepts of derivatives, and help the candidate build a strong practical grasp on the subject.

Who should do this?

The program is best suited for any who intends to build a career as

- Derivatives Analysts
- Financial Analysts
- Risk Analyst
- Investment Banker
- Traders

Why should you do this?

This course is designed in a manner that ensures hands on understanding of concepts of derivatives. It ensures that the student is able to

- understand the concepts around derivatives, and their applications
- discuss about real world applications of futures and options
- apply major concepts of derivatives in risk management and trading

Videos	Content covered
Introduction to the program	Introduction to the program
Introduction to Derivatives	What are derivatives - Video Forwards - Video Futures - Video Forwards vs Futures - Video MTM & Margins - Video Pricing of Forwards and Futures - Video Spot Future Price Convergence - Video Open Interest – Video
Introduction to Options	Introduction to Options - Video Types of Options - Video Moneyness, Intrinsic and Time Value - Video Option Payoffs - Video Option Premium and Time Value - Video Put Call Ratio - Video Put Call Parity - Video Option Pricing Introduction – Video
Implied Volatility	Introduction to Volatility - Video Volatility Smile – Video
Option Trading Strategies	Options Usage in Portfolio Management - Video Bullish Strategies - Video Bearish Strategies - Video Neutral Strategies -1 - Video Neutral Strategies -2 - Video Rollovers - Video Volatility Revisited – Video
Option Pricing Models	Option Pricing - Binomial - Video Option Pricing - Black Scholes – Video
Introduction to Greeks	Introduction to Greeks - Video Delta - Video Gamma - Video Vega - Video Theta - Video Relationship between Delta, Gamma, and Theta – Video
Risk Management	Risk Management Using Options - Video Repairing Option Trades – Video
Introduction to Swaps	Introduction to Swaps - Video

For Certification in Applied Derivatives, under the project header, you need to do the following

Assignment 1

For the following underlying stocks, answer the questions that follow

1. ITC
2. SBI
3. DLF
4. Indiabulls Housing Finance
5. Tata Steel

Questions

- Find out historical volatility of these stocks, using last 1 year price data
- Compare the implied volatility of the ATM options for these , versus annualized standard deviation calculated in step 1
- Try and see if you can identify a volatility smile. How much is the difference between an ATM option and an OTM option 5 strikes away from ATM option (Use put options)
- Which of the above stocks exhibits the largest volatility smile (Biggest gap in IV between ATM and OTM 5 strikes away (Put Options))

Send your answers to programs@finshiksha.com and we will get back with our comments on the same.