

BNK 202: Financial Derivatives

Credit: 3

Lecture Hours: 48

Course Objective

The objective of this course is to provide students with a foundation in the study of derivatives and their applications to risk management. More specifically the course enables the students to understand the fundamental nature of derivatives, value options, forwards and futures, and show how they are used to achieve various hedging and speculating objectives.

Course Description

This course is designed to introduce students to the theoretical and practical aspects of financial futures, options, and other derivatives. This course deals with introduction to derivatives, structure of options markets, valuation of an option, the strategy of basic options, structure of future market, valuation of forward and future prices, swaps, financial risk management and derivative markets in Nepal.

Course Details

Unit 1: Introduction

LH 5

Derivative markets and instruments; Core concepts in financial and derivative markets; Spot and derivative markets; Role of derivative market; Criticism of derivative markets; Misuse of derivatives; Derivatives and ethics; and Career in derivative markets.

Unit 2: Structure of Options Markets

LH 5

Development of options markets; Call and put options; Over-the-counter options market; Exchange-listed option trading; Mechanics of trading; Option quotation; Types of options; Transaction costs in option trading; and Regulation of option markets.

Unit 3: Valuation of an Option

LH 8

Principles of call option and put option pricing; Two period Binomial option pricing model; The Black-Scholes-Merton model of option pricing with and without dividends; and Managing the risk of options.

Unit 4: The Strategy of Basic Options

LH 5

Terminologies and notations of option strategies; Stock transactions; Call option transactions; Call and stock: the covered call; Put and stocks: the protective put; and Synthetic puts and calls.

Unit 5: Structure of Future Market

LH 5

Development of forward and future markets; Over-the-counter forward market; Organized future trading; Future traders; Mechanics of future trading; Types of future contract; Transaction costs in forward and future trading; and Regulation of futures and forward markets.

Unit 6: Valuation of Forward and Future Prices

LH 5

Generic carry arbitrage; Carry arbitrage when underlying generates cash flows; Pricing model and risk premium; and Pricing options in future.

Unit 7: Swaps

LH 5

Concept and nature; Features of swaps; Introduction to interest rate swaps, currency swaps and equity swaps.

Unit 8: Financial Risk Management

LH 5

Rationale for risk management; managing market risk; Managing credit risk; and Perspectives on financial risk management

Unit 9: Derivative Markets in Nepal

LH 5

Development of derivative market in Nepal; Instruments traded in the market; Mechanics of trading, Regulation of derivative markets in Nepal; and Issues in derivative markets of Nepal.

Basic texts

Chance, D. M. & Brooks, R. *An Introduction to derivative and risk management*. New Delhi: Cengage Learning India Pvt. Ltd.

Hull, J. C., & Basu, S. *Options, futures, and other derivatives*. Singapore: Pearson Education Singapore Pvt. Ltd.