

(#) and Title: **(FINA 556) Structured Products and Exotic Options**

Brief description: This course discusses the product nature and hedging, pricing and risk management methodologies of the commonly traded exotic financial derivatives and asset backed securities in the financial markets. Special emphasis will be on exotic swaps, swaptions, credit default swaps, collateralized debt obligations, constant proportional debt obligations, mortgage backed securities, convertible bonds, equity-linked hybrid products.

Pre-requisite(s): FINA 530 Advanced Derivatives Analysis

Course Outline:

- Class 1
- Overview of structured products
 - Target redemption notes
 - Equity-linked notes
 - Exotic forwards – flexible notional and snowball features
 - Accumulators
- Class 2
- Implied forward rates: Bond forward and forward rate agreement
 - Asset swaps
 - Short positions in defaultable bonds, total return swaps and equity swaps
 - Currency swaps
 - Differential swaps
 - Swaptions
- Class 3
- Credit default swaps
 - Funding cost arbitrage
 - Counterparty risk
 - Credit spread curves and forward probability of default
 - Valuation of the CDS spread
 - Constant maturity swaps
 - Product nature and uses
 - Hedging by swaptions
 - Variance and volatility swaps
 - static hedging using options
 - VIX index
- Class 4
- Convertible bonds
 - Conversion, callable, reset and other features
 - Investors' perspectives on investment on convertible bonds
 - Investors' perspectives on convertibles
 - Busted convertibles
- Class 5
- Structured convertibles
 - Exchangeable convertible bonds
 - Convertible preferred stocks
 - LYONs (Liquid Yield) Options Notes
 - PEPS (Premium Exchangeable Participating Securities)

- Reverse convertibles
 - 24-month callable dual accrual cash or share security on Wal-Mart Stores, Inc and Inter Corp”

Class 6

- Variable annuities products
 - Participating policies
 - Policy riders
 - Guaranteed annuity options

Class 7

- Mortgage backed securities
- New generation of credit structured products
 - Constant proportional debt obligations
 - Constant proportional portfolio insurance
- Collateralized debt obligations

Rec. Texts:

“Options, Futures and other Derivatives” by John Hull, sixth edition (2006), Prentice Hall.