This course covers the foreign exchange market and its related derivative instruments - the latter being forward contracts, futures, options, and some exotic options. What is unusual about foreign exchange is that although it can rightfully claim to be the largest of all financial markets it remains an area where very few have any meaningful experience. Virtually everyone has traded stocks, bonds, and mutual funds. Comparatively few individuals have ever traded foreign exchange. In part that is because foreign exchange is an interbank market. Yet ironically the foreign exchange markets may be the best place to trade derivatives -- and for that matter invent new derivatives -- given the massive two-way flow of trading that goes through bank dealing rooms virtually twenty-four hours a day. And most of that is transacted at razor-thin margins, at least comparatively speaking, a fact that makes the foreign exchange market an ideal platform for derivatives.

The emphasis in this course is on getting the student familiar with the nature of the foreign exchange market and on those factors that make it special among financial markets. This hopefully will enable the student to gain a deeper understanding of the related market for derivatives on foreign exchange.

The mathematical requirements for this course are rather on the basic level - we stick to mainstream models that capture most of what is important about currency derivatives. By necessity we will sometimes find ourselves discussing ideas from economics. But first, to get anywhere the student must adopt correct market terminology as well as acquire some basic knowledge of the history of the market. So that is where we will start.

The textbook is my "Options on Foreign Exchange" second edition ("OFEX II"). I have another volume that I edited, "Currency Derivatives," that contains the scientific papers that are the foundation of the currency derivatives market. I will post scientific papers and extensive lectures notes
(these are like a second textbook for this course) on the school's coursework website. There also are portions of two chapters in draft format from my new book on central banking and Monetary Policy in Emerging Markets Nations ("EMCB"). Note that I will most likely add materials during the course, so please check the site regularly.

The final exam will be on the last day of class, after the break. Homework will not be graded.

Lecture 1 Wednesday May 28
Introduction to the Course
The Foreign Exchange Market
The spot foreign exchange market
A brief history of exchange rates
Alternative foreign exchange regimes
Market conventions

Lecture Notes: Spot FX
Lecture Notes: Forex Margin
BIS Triennial Central Bank Survey of Foreign Exchange
DeRosa: EMCB Drafts Chapters 4 and 5 (portions only)
Homework Assignment 1: Foreign exchange exercises

Lecture 2 Wednesday June 4
Forward foreign exchange
Interest parity theorems
The valuation of forward contacts
Currency futures contracts
Non-Deliverable Forwards
The forward bias and carry trades
Case Study: China's Forward Paradox

DeRosa: DeRosa: EMCB Drafts Chapters 4 and 5 (portions only)
Lecture Notes: Forward FX
Lecture Notes: NDFs

Froot
Kritzman
Froot and Thaler
Lipscomb
Homework Assignment: Internet Foreign Exchange Roll
Homework Assignment:
The IDR-Linked Note Term Sheet

Lecture 3 Wednesday June 11
Emerging Markets Currencies and Foreign Exchange Crises
Why Are Emerging Market’s Currencies Different?
Central Banks: Monetary policy; intervention;
sterilization; capital controls
The Thai Baht Basket Trade
Implications for Value-at-Risk

DeRosa: Drafts Chapters 4 and 5 from Emerging Markets Book
DeRosa: Congressional Testimony
DeRosa: IFC Seminar
DeRosa: Ten Years after the SE Asian Crisis
Lecture Notes: Forward FX in Crisis
Russian Federation’s Proclamation Aug 1998
IMF on the ERM Crisis
Memorabilia (Lest We Forget):
  Bretton Woods is Kaput
  Global Funds take a Fall
  FT on Sterling Crisis
Lecture 4 Wednesday June 18
Options on Foreign Exchange - I
Currency Options
Put-Call Parity
Black-Scholes-Merton
Implied Volatility
Dynamic Hedging
The "Greeks"

Homework Sheet Assignment:
  Option Mechanics
Homework Assignment:
  Dynamic Hedging

Lecture Notes: Currency Options

Lecture 5 Wednesday June 25
Options on Foreign Exchange -- II
Currency Futures Options
Pricing the Surface
Volatility:
  Risk Reversals
  Butterflies
  Skews and Smiles
Time

Lecture Notes: Currency Futures Options
Lecture Notes: Topics on Volatility
Lecture Notes: Pricing Options/ Vol Surface
Lecture Notes: Currency Futures Options
Malz: Financial Crises
Volatility Cone

Lecture 6 Wednesday July 2
Barrier Options - 1
Lecture Notes: Barrier Options

Homework Assignment 5: Digital Options

FINAL EXAM July 2 - Second Part of Session