

NEW YORK UNIVERSITY STERN SCHOOL OF BUSINESS

B40.3333.01: Debt Instruments and Markets

Syllabus for 2005 Summer I

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Course Description

The objectives of this course are to

1. Describe important fixed income securities and markets, and
2. Develop tools for valuing fixed income securities and managing interest rate risk.

Schedule of Lectures

May 16	Lectures 1-4: Course Overview, Zeroes and coupon bonds, Zero rates and rate of return, Yield to maturity, Forward rates
May 18	Lectures 5-7: Repos, Duration, Convexity
May 23	Lectures 8-9: Immunization, Floaters, Inverse Floaters <i>Problem Set 1 Due</i>
May 25	Lectures 10 and 11: Swaps, No-arbitrage pricing <i>Problem Set 2 Due</i>
June 1	Lectures 12 and 13: Risk-neutral probabilities, Dynamic trading strategies <i>Problem Set 3 Due</i>
June 6	Lectures 14 and 15: Interest rate modeling, Hedging <i>Problem Set 4 Due</i>
June 8	Lectures 16 and 17: Options, American options, Callable bonds
June 13	Lectures 18 and 19: More on callable bonds, Swaptions <i>Problem Set 5 Due</i>
June 15	Lectures 20-22: The mortgage market, IOs, POs, CMOs
June 20	Group Project <i>Problem Set 6 Due</i>
June 22	Lecture 23: Caps, floors and collars <i>Problem Set 7 Due</i>
June 27	Individual Final Exam <i>Problem Set 8 Due</i>

Course Materials

Required

Lecture notes and problem sets (available via web)

Recommended

Tuckman, *Fixed Income Markets*, Wiley, 2002

Sundaresan, *Fixed Income Markets and Their Derivatives*, ITP, 1997

Course Requirements

Grades will be based on the following

Eight Problem Sets	30%
Group Project	30%
Individual Final	40%

Problem Sets

Students may work together - in a group of up to five - when completing the problem sets. Groups should submit just one assignment. Late assignments will not be accepted. Assignments submitted by e-mail or the like will not be accepted.

Group Project

The same groups will complete a same-night project. Said project will be distributed at the beginning of the class session. Groups will then complete the project in study areas. You may wish to reserve a small workroom at the library for that evening. Bring all course material covered to date. You will need a calculator. And you will need the series of EXCEL spreadsheets accompanying the course.

Individual Final Exam

Bring all course material and a calculator. The exam will be taken in the classroom.