

The Hong Kong University of Science & Technology
Department of Finance

FINA 536: Debt Securities
Spring 2005

Instructor: Dr. Chu ZHANG
Office: Room 2369, HKUST
Phone: 2358-7684
E-mail: czhang@ust.hk

Course Objective

This course teaches analytical tools in fixed-income securities. It covers topics such as straight bond valuation, yield-to-maturity, forward rates, discount factors, par yields, term structure theories, durations, convexities, and hedging strategies. It also covers certain more advanced topics in managing interest-rate risk using interest-rate forwards, futures and swaps. Both economic intuition and quantitative skills are emphasized. Lectures are supplemented with in-class computer exercises.

Required Textbook

MPP Martellini, L., Priaulet, P. and Priaulet, S., 2003, *Fixed-Income Securities: Valuation, Risk Management and Portfolio Strategies*, The Wiley Finance Series.

More than 80% of the lecture material is based on the textbook.

Grading

Midterm exam (90 min.)	40 points	March 2, 2005
Final exam (150 min.)	60 points	March 30, 2005

Absence from the exams will not be excused except for serious medical reasons with doctor's letter provided.

Topics

Date	Topic	Readings
Feb. 2	Overview of Fixed-income Securities	MPP Ch.1
	Bond Price and Yield-to-maturity	MPP Ch.2
	Spot Rates and Related Quantities	MPP Ch.2
Feb. 16	Classical Term Structure Theories	MPP Ch.3
	Yield Curve Fitting	MPP Ch.4
Feb. 23	Duration and Convexity	MPP Ch.5, 6
Mar. 2	Midterm Exam	
	Nonparallel Yield Shift	MPP Ch.6
Mar. 9	Portfolio Strategies	MPP Ch.7,8,9
Mar. 16	Floaters, Interest-rate Forwards and Futures	MPP Ch.11
Mar. 23	Interest-rate Swaps	MPP Ch.10
Mar. 30	Final Exam	

Homework

MPP Ch.2: 7, 14, 24.

MPP Ch.3: 3.

MPP Ch.4: 1, 7.

MPP Ch.5: 7, 9.

MPP Ch.6: 1, 8.

MPP Ch.8: 4, 7.

MPP Ch.10 4, 7.

MPP Ch.11 1, 4, 6, 10.