

The Hong Kong University of Science & Technology
Department of Finance

FINA 361: Fixed Income Securities
Spring 2004

L1: Tue. & Thu. 9:00–10:20, Room 2406

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Office hours: Friday 13:30–15:30

Course Objective

This course covers basic analytical tools in fixed-income securities (present value, forward rates, yield-to-maturity, term structure theories, duration analysis and immunization techniques), fixed-income markets (government bond markets, corporate bond markets, and institutional bond markets), and certain advanced topics in risk management using interest rate contingent claims such as options, futures and swaps, with applications including callable bonds, mortgage-backed securities and convertible bonds. Both economic intuition and quantitative skills are emphasized. Upon completion of the course, an average student should be able to pass the level 1 CFA test on the fixed-income securities, and an outstanding student should be able to pass the level 2 CFA test on the fixed-income securities.

Required Textbook

(FF) Frank J. Fabozzi, 2003, *Bond Markets, Analysis and Strategies*, 5th edition, Pearson Education.

Grading

First midterm exam (80 min.)	30 points
Second midterm exam (80 min.)	20 points
Final exam (3 hours)	50 points

You may bring to the exams an 11" by 8.5" (A4-size) data sheet, on which you can write anything you like on both sides, but everything has to be hand-written. The second midterm exam is not cumulative. The final exam covers the entire course. The course grade depends on the performance relative to the class average.

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

Cheating will not be tolerated. Any student caught cheating in the exams will receive zero credit and may face further disciplinary actions.

Topics

Part I	Basic Analytical Tools	Readings
	1. Overview of fixed-income securities	Ch.1
	2. Yield-to-maturity and spot rates	Ch.2, Ch.3
	3. Duration and convexity	Ch.4
	4. Forward rates and term-structure theories	Ch.5
	5. Floaters and repos	Ch.2, Ch.19
Part II	Fixed-income Markets	
	6. Government bond markets	Ch.6
	7. Corporate bond markets	Ch.7
	8. Institutional bond markets	Ch.10-15
	9. Global perspectives	Ch.9
Part III	Fixed-income Derivatives	
	10. Overview of fixed-income derivatives	Ch.16
	11. Interest-rate models	Ch.16
	12. Convertible bonds	Ch.18
	13. Interest-rate futures	Ch.23
	14. Interest-rate options	Ch.24
	15. Interest-rate swaps	Ch.25
	16. Credit derivatives	Ch.26

Assignments

Assignment 1:

Chapter 2: 1, 3, 4, 8, 9, 10, 11.

Chapter 3: 2, 7, 12, 14, 16.

Chapter 4: 2, 9, 10, 13, 15.

Chapter 5: 13, 14.

Assignment 2:

Chapter 6: 5, 6, 11.

Chapter 10: 16, 17.

Chapter 11: 14, 15.

Chapter 12: 14, 15, 16, 19, 20.

Assignment 3:

Chapter 16: 2, 7, 8, 10, 13.

Chapter 18: 1, 5, 6.

Chapter 23: 4, 10, 11, 16.

Chapter 24: 1, 4, 18, 19.

Chapter 25: 1, 2, 6, 14, 15, 16, 17, 18, 19, 22.

Chapter 26: 10, 13, 18, 19, 20.