

**STERN SCHOOL OF BUSINESS - GRADUATE DIVISION  
DEPARTMENT OF FINANCE  
NEW YORK UNIVERSITY**

**B40.3333  
Debt Instruments and Markets**

**Professor Edwin J. Elton  
Fall 2000  
M/W 1:00-2:20 PM**

**COURSE OUTLINE**

This is an advanced course in bonds and bond portfolio management. I assume you have taken the course in finance and understand basic bond pricing, options and futures.

- **Textbook**  
Fabozzi, Frank - Bond Markets, Analysis and Strategies, Prentice-Hall, Inc. 1999, 4th Edition. (FF)
- **Reading and Lecture Notes**  
Packets of reading and lecture notes are available at the bookstore.

**Supplemental:**

1. Elton, Edwin and Gruber, Martin J., Modern Portfolio Theory and Investment Analysis, 5th Edition, John Wiley, 1995. (E&G)
2. Ho, Thomas S.Y., Strategic Fixed Income Investment, Richard D. Irwin, Inc. 1990. (Ho)

The grade will depend on the mid-term, final and the problems. There will be problems assigned from time to time.

**Office Hours :**

Monday 10:00-12:00  
Wednesday 3:00-5:00

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Phone: (212) 998-0361

**Suggested Grade Distribution:**

Although sections may vary somewhat, the Department of Finance suggests a grade distribution of:

<b>A/A-</b>	<b>20-25%</b>
<b>B</b>	<b>55-70%</b>
<b>C &amp; Below</b>	<b>10-20%</b>

This distribution is intended to make standards comparable across advanced classes, as required by the school. I intend to follow this distribution on average.

**I. Background (1)**

FF; Chapters 1,5,6,7,10  
N; Fixed Income Securities

**II. Simple Analytics (1)**

FF; Chapters 2 and 3  
N; Yield to Maturity; Accrued Interest; Quoted Price Invoice Price

**Reading**

1. Invoice Prices, Cash Flows, and Yields on Treasury Bonds.
2. Invoice Prices, Special Redemption Features, Cash Flows and Yields on Eurobonds.

**III. Spot and Forward Rates (1)**

FF; Chapters 9 to page 204  
E&G; Chapter 20  
N; Multiplying

**IV. Tax and Accounting Issues (1)**

N; Tax Treatment

**V. Term Structure (1)**

FF; Chapter 9 to page 209  
E&G; Chapter 20

**VI. Protecting Against Term Structure Shifts (2)**

FF; Chapters 4 and 22  
N; Protecting Against Term Structure Shifts

**Reading**

1. An Introduction to Duration Convexity and Yield Curve Risk.
2. Immunization and Duration: A Review of Theory.
3. Convexity: An Introduction.
4. Risk Constrained Portfolio Reallocations and the Prices of Interest Rate Risk.

## **VII. Forward Contracts (2)**

FF; Chapter 17  
E&G; Chapter 21  
N; Forwards and Futures

### **Reading**

1. Money Market Futures

## **VIII. Floating Rate Notes and Swaps (1)**

FF; Chapter 19  
N; Floaters and Inverse Floaters, Swaps

### **Reading**

1. Lucas, The Effectiveness of Downgrade Provisions in Reducing Counterparty Risk.
2. Swaps and the Derivative Market.
3. Derivatives at Banc One.

## **IX. Bond Options (2)**

FF; Chapters 13, 14, 16, and 18  
N; Option Valuation

### **Reading**

1. A One Factor Model of Interest Rates and its Application to Treasury Bond Options.
2. Interest Rate Caps and Floors.

## **X. Corporate Bonds (1)**

FF; Re-read Chapter 6  
N; Corporate Bonds

### **Reading**

1. Defaults and Returns on High Yield Bonds.
2. Corporate Bond Valuation and the Term Structure of Credit Spreads.

**XI. Mortgages (2)**

FF; Chapters 10, 11, 12, and 15  
N; Mortgage-Backed Securities

**Reading**

1. Complexities of Hedging Mortgages
2. GNMA Pass-Throughs----What Do They Pass Through and What Do They Yield?

**XII. International Bond Management (2)**

FF; Chapter 8  
N; International Diversification

**Reading**

1. Institutional Characteristics of the Japanese Government Bond Market.

**XIII. Active Bond Strategies (2)**

FF; Chapters 20 and 21  
Ho; Chapter 14  
N; Multi-Index Models in the Bond Area and Bond Portfolio Management

**Reading**

1. Matched Funding Techniques
2. Cross-Currency Bond Positions: Spreading and Hedging

**XIV. Bond Evaluation (1)**

Ho; Chapter 15