Day-By-Day Course Schedule

(Note: A Homework/Assignment Sheet (on green paper) will be handed out for each day in advance. These Homework/Assignment Sheets will provide you detailed guidance in preparing for class. They supersede this syllabus.)

Session 1  Introduction to Capital Markets
(Monday, November 1)

Preparatory Readings:

Corporate Finance (RWJ), Chapter 1 (pp.17-19), Chapter 4.

Review Reading: Wall Street Journal Guide To Understanding Money & Investing

- Primary securities and their issuers
- Market transactions and market micro structure
- The basic investment problem and the application of NPV
- Identifying the cash flows of an investment

Session 2  Treasury Strips and Treasury Bonds and Notes
(Wednesday, November 3)

Preparatory Readings:

RWJ, Chapter 5 (pp.106-112)

Course Packet (CP-1), Fabozzi (4th edition), Chapter 1. Skip the sections on “Amortization Feature” and “Embedded Options”.


On P:\Course-files\fall\T06\CM, CMBondPricing.doc

On P:\Course-files\fall\T06\CM, CMBondBuilder.xls

- Defining Characteristics of Coupon Bonds
- Compounding Periods: annual, semi-annual & continuous
- Risks Associated with Bond Investments
- Interest Rates and Bond Prices
- Treasury Strips and Strip (Spot) Rates
- Calculating Bond Price and Yield To Maturity (YTM)
- Calculating Accrued Interest: When and Why
Session 3  Bond Arbitrage and T-Bills
(Friday, November 5)

Preparatory Readings:

Re-read CP-2, Fabozzi, pp. 130-131

CP-3, Livingston, Chapter 8 (pp. 121-128)

- Spot Rates
- Bonds as the sum of the PV of well-defined CFs
- Pricing a Treasury Coupon Bond with Treasury Strips
- Coupon stripping and Arbitrage between Bonds and Strips
- Treasury Bills vs. Treasury Bonds
- Treasury Bills: A special pricing convention

Session 4  The Yield Curve and the Term Structure of Interest Rates
(Monday, November 8)

Preparatory Readings:

RWJ, Appendix 5A (pp. 134-142)

- Calculating Forward Rates from Spot Rates
- Distinguishing the Term Structure from the Yield Curve
- Why YTM is an incomplete measure of return
- Theories of the Term Structure
- Interpreting the slope of the term structure
- Credit risk premiums

Session 5  Bond Price Volatility and Managing Interest Rate Risk
(Wednesday, November 10)

Preparatory Reading:
CP-4, Fabozzi, Chapter 4 (pp. 55-68 and 77-78) and Chapter 19 (pp.453-465)

On P:\Course-files\fall\T06\CM, CM Immunization101.xls

- The Price-Yield Relationship
- Duration of a Bond
- Macaulay vs. Modified Duration
- Convexity of a Bond
- The Concept of Immunization
- Immunizing a Bond Portfolio
- Why Duration is only a partial immunization solution
Session 6  Introduction to Stock Valuation Models  
(Monday, November 12)

Preparatory Readings:

RWJ, Chapter 5 (pp. 112-127 except section 5.7)

RWJ, Chapter 7 (Section 7.2)  
You do NOT have to master the details regarding how to come up with free cash flow. Focus on line (6) and below in Table 7.4. You should know how to calculate the NPVs using the “Total cash flow of project” on line (6) and the given discount rates at the bottom of the table.

CP-5, Google Article…

- Dividend discount models
- Price-earnings ratio
- Free cash flow discount models
- Valuing high-tech companies

Session 7  Security and Portfolio Returns  
(Monday, November 15)

Preparatory Readings:

RWJ, Chapter 9

CP-6, Dimson, Marsh, and Staunton, “Long-Run Global Capital Market Returns and Risk Premia”

- The investment opportunity set
- Different types of return: holding period, compounded, average, nominal, real
- Historical returns and risks of bonds and stocks
- Expected Rate of Return and Risk Estimates

Session 8  Modern Portfolio Theory  
(Wednesday, November 17)

Preparatory Readings:

RWJ, Chapter 10 (pp. 255-276)

- The mean and variance of a portfolio’s return
- Covariance and correlation coefficients
- Diversification and efficient portfolios
• Investors' Utility and Risk aversion
• The mean-variance criterion/tradeoff
• Optimal portfolio choice

Session 9  The Capital Asset Pricing Model  
(Friday, November 19)

Preparatory Readings:

RWJ, Chapter 10 (pp. 277-287)

Case Assignment:

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• Riskless lending and borrowing: The Capital Market Line (CML)
• Market equilibrium
• Unsystematic and systematic risk
• The security market line (SML)

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Mid-term Exam: Saturday, November 20th, 9:00am-12:00pm

Session 10  The Capital Asset Pricing Model and COMSAT Case  
(Monday, November 29)

Case Assignment:

CP-7, COMSAT, (Communications Satellite Corporation) HBS Case

• How CAPM is used in the real world
• The assumptions underlying the CAPM

Session 11  Multi-Factor Asset Pricing Models  
(Wednesday, December 1)

Preparatory Readings:
CP-8 “Understanding Risk & Return, the CAPM, and the Fama-French Three Factor Model”, Tuck Case Note

Case Assignment:
CP-9 “Evaluating Mutual Fund Styles and Performance”, Tuck Case

• Factor models
• Systematic risk and factor loadings
• The linear relation between factor loadings and expected returns
• The relation between the CAPM and multi-factor models

Session 12  Market Efficiency
(Friday, December 3)

Preparatory Readings:

RWJ, Chapter 13 (pp. 351-371)

• Definitions: weak, semi-strong, strong forms of efficiency
• Implications of market efficiency
• Evidence on market efficiency

Session 13  Futures I (Basics)
(Monday, December 6)

Preparatory Readings:

RWJ, Chapter 25 (pp. 696-703)

CP-10, “Financial Futures”, HBS Case Note

• Futures terminology
• Futures versus forward contracts
• Spot-futures parity
• Basis risk  *(Note: this topic is not explicitly discussed in any of the readings.)*
• Futures price versus expected spot prices

Session 14  Futures II (Hedging)
(Wednesday, December 8)

Preparatory Reading:

RWJ, Chapter 25 (pp. 703-713)

CP-11, “A Note on Arbitrage-free Currency Forward Rates”, Tuck Case Note

• Stock index futures
• Foreign exchange futures
• Interest rates futures
Session 15  Options I (Basics)  
(Friday, December 10)

Preparatory Reading:

RWJ, Chapter 22 (pp. 618-631)

• Option terminology
• Option payoff diagrams
• Put-call parity
• Bounding option values
• Factors influencing option prices

Session 16  Options II (Option Valuation)  
(Monday, December 13)

Preparatory Reading:

RWJ, Chapter 22 (pp. 631-638)

CP-12, “Note on Option Pricing”, HBS Case Note

• Binomial option pricing model
• Black-Scholes option valuation

Session 17  Options III (Hedging with Options)  
(Tuesday, December 14)

Preparatory Reading:


• Delta Hedging vs. One-to-one Hedging
• The costs and benefits of calls vs. puts in hedging

Session 18  Executive Stock Options and Course Summary/Review  
(Wednesday, December 15)

Case Assignment:

CP-14, Sally Jameson: Valuing Stock Options in a Compensation Package, HBS Case Note

Preparatory Readings:

RWJ, Chapter 23 (pp. 650-655)
• Valuing Executive Stock Options
• Review of the Most Important Capital Markets Concepts

Final Exam: Saturday, December 18, 9am-12:30pm