

**Northwestern University
Kellogg School of Management
Corporate Finance
FINC 441
Professor Paola Sapienza**

SYLLABUS

Course readings:

Allen, Brealey and Myers, Principles of Corporate Finance, Eight Edition, (BM)
Course Packet for 441 - Paola Sapienza (CP).

Cases:

- “Arundel Partners: The Sequel Project” (HBS 9-292-140)
- “Dividend Policy at FPL Group, Inc. (A)” (HBS 9-295-059)
- “UST Inc.”
- “Liability Management at General Motors” (HBS 9-293-123)

Course outline:

Capital Budgeting. Lectures 1-6
Dividend Policy. Lecture 7
Capital Structure. Lectures 8-12 and 14
Hedging. Lecture 13

Outline of the lectures

Lecture 1: Course objectives and efficient market review

- Introduction
- Role of financial manager
- Financial Market Efficiency
 - BM: Chapter 13
 - CP: Are Markets Efficient?, WSJ Dec 28th, 2000

Lecture 2: Capital Budgeting when Capital Structure is Irrelevant - A Review

- Valuing projects when capital structure is irrelevant
- Choosing the correct risk free rate
- Calculating the correct project beta
- Calculating the correct market price of risk
 - BM: Chapter 9 & 25

Lecture 3: Corporate valuation

- Definition of free cash flows (to equity and to the firm)
- Forecasting future free cash flows
- Terminal values
- Discount rates

BM: Skim Chapter 29

Lecture 4: Financial Options

- Basic instruments
- Definitions of options
- Portfolios of options
- Why buy or sell options?
- Application to Corporate Securities

BM: Chapter 20

Lecture 5: Option pricing

- Option Pricing - Overview
- Simple methodology for Pricing Options.
- Black-Scholes pricing formula
- Some useful comparative statics
- When is it optimal to exercise an option?

BM: Chapter 21

Lecture 6: Asset Options and the Proper Use of NPV

- Investment projects as real options.
- New and improved NPV.

BM: Chapter 22 and Chapter 10.3 (pages-257-266)

CP: The Options Approach to Capital Investment, A. Dixit and R. Pindyck

Lecture 7: Dividend Policy

- Dividend policy
- Dividend Irrelevance: Modigliani-Miller
- Taxes
- Manager's incentives for setting dividends
- Dividends as Signals of Firms Prospects

BM: Chapter 16

CP: The Dividend Puzzle, F. Black

CP: Quarterly Dividend, J. Aharony and I. Swary

Lecture 8: Capital Structure Irrelevance

- The financial structure of the firm
- Modigliani & Miller Irrelevance Proposition
- A Numerical Example
BM: Chapters 17 (skim Chapters 14)

Lecture 9: Capital Structure with Taxes WACC versus APV

- Adjusted Net Present Value
- Tax Subsidies for Corporate Borrowing
- Weighted Average Cost of Capital (WACC)
- Supplementary material: Personal taxes and tax clienteles
BM: Chapter 18.1 - 18.2 (pages 468-476) and Chapter 19
CP: Debt and Taxes, M. Miller

Lecture 10: Capital Structure with Costs of Financial Distress

- The indirect evidence of the Costs of Financial Distress
- Bankruptcy costs
- Who pays the bankruptcy costs?
- Different types of bankruptcy costs
- Economic distress vs. financial distress
- Design Capital Structure to minimize costs of financial distress
BM: Chapter 18.3 (pages 476-490) and Chapter 33.4 (pages 921-926)

Lecture 11: Capital Structure with Asymmetric Information

- Sources of Capital and Market's Reaction to Financing
- Capital Structure Signaling game (or insiders have more information than outsiders)
- Potential solutions when insiders have more information than outsiders
BM: Chapter 15 and 18.14 (490-495)
CP: The Capital Structure Puzzle, S. Myers
CP: Equity Issues and Offering Dilution, P. Asquith and D. Mullins

Lecture 12: Capital Structure with Conflicts of Interest (Homework 5 due)

- The Public Corporation
- Conflicts between ownership and management in public corporations
- The Private Corporation -- The New Financial Structure?
BM: Chapter 12
CP: Agency Costs of Free Cash Flow, M. Jensen
CP: Zapata, Business Week Article

Lecture 13: Risk Management and Hedging

- Description of Risk Management and Hedging.
- Optimal Hedging in a Modigliani- Miller world
- Corporate Finance and Hedging

BM: Chapter 27 and Chapter 9.4 (pages 226-231)

CP: A Framework for Risk Management, K. Froot, D. Scharfstein, and J. Stein

Lecture 14: Compound and Exotic Securities

- Review of Options.
- Convertible Bonds
- Warrants

BM: Chapter 25.6 (pages 680-686)

Cases:

1. “Arundel Partners: The Sequel Project”
 - i. CP: Arundel Partners: The Sequel Project Case and Case Questions
2. Dividend Policy at FPL Group, Inc. (A)
3. UST Inc. Case
 - i. CP: UST Inc. Case and UST Case Questions
 - ii. CP: Estimating Default Probabilities
4. Liability Management at General Motors Case
 - i. CP: Liability Management at GM Case and GM Case Questions

Lectures and class discussions

The lectures will be based on the outlines in the course packet. You should read the relevant lecture outlines carefully prior to class. Class preparation is essential to succeed in this course.

Review sessions:

There will be one review session for both the midterm and the final. I will announce times in class.

Assignments:

Deadlines for this class are **non-negotiable**. Please look at the Calendar for precise deadlines. If you have a question about a deadline, you should resolve your question prior to the deadline. Under special circumstances you may arrange to turn in assignments early. **Assignments will not be accepted after the due date and exams may not be taken late. NO EXCEPTIONS.** To learn about deadlines for homework, cases, and exams please refer to the calendar on the web page of the course.

Homework Assignments:

Homework assignments are due on the day specified. Only Homework 2 must be handed in for a grade. You may work in a group of up to 6 individuals for homework 2. The rest of the homework assignments are for your benefit. Doing these homework will make the concepts much clearer and will help immensely when it comes to the exams. I will post answers on the due date, but will not collect your answers.

Case Assignments:

Case Write Ups: Case write ups are due at the beginning of class on the day we discuss the case. Case questions are in your packet, I would like you to hand in a memo containing your answers. Address the memo to your boss, someone who understands the basics of corporate finance but who received their MBA perhaps 7-10 years ago. The memo should be 3-5 written pages plus tables and graphs. Brevity is a virtue. I expect the answers to be both well reasoned and well presented. The cases are your opportunity to apply the concepts you have learned thus far to messy, real world situations. You will find a spreadsheet program essential for preparing your answers. You may work in groups of up to 6 individuals on the cases. In the past, groups have been more successful than individuals in preparing the cases. You may not use a tutor to prepare cases.

Your answer must be clear. Handing in your excel spreadsheet is not considered a sufficient answer. It should be clear both what your answer is and how you arrived at it.

Case Discussions: Since you will turn your memo in at the beginning of class you should make a copy to use for the class discussion. Your answers to the case questions will be the basis for our discussion. I will not hand out answers to the cases.

Grading:

There will be two exams. The midterm exam will be given during the sixth week of classes. It will cover the first five weeks of material. The midterm will count for 120 points. The final exam will be given during exam week (the eleventh week of the course). It will cover the entire course. The final will be worth 240 points. Exams cannot be taken late.

Assignment	Total Max Points
Face Sheets	10 (if returned the first week of class)
Homework assignment 2	25
AP case, FPL case	10 each
Homework assignments 1,3, 4,5	0
UST case and GM case	30 each
Midterm	120
Final	240
Total MAX	475

Total score = Face card + 2 Homework assignments + 2 cases + max(midterm+final, 3/2 final)

Appointments to discuss anything related to the course may be made by e-mailing me at Paola-Sapienza@northwestern.edu. If you send e-mails and would like a prompt answer, please include FINC 441 in the subject.

Regrade policy

If you feel that your homework assignments, cases, or exams have been unfairly graded, you can submit a regrade request. All requests must be made in writing. They should consist of a short explanation of why you think the grading is incorrect. Upon submission of a regrade request, I will review your entire assignment/exam. Your final grade will be based on this total review. Thus, your grade can either be raised or lowered as a result of a regrade request.

Supplementary readings:

These aren't readings that I want you to complete during the course. These are books that I have found interesting as well as informative. If after my class you are interested in additional reading, this list is meant to be my suggestions of where you can start looking.

Corporate Finance: A valuation approach, by Simon Z. Benninga, and Oded H. Sarig, McGraw Hill, 1997 (Useful for topics related to Lecture 3).

Investment Under Uncertainty, by Avinash Dixit and Robert Pindyck. This book is a very in depth look at what we referred to as asset or real options (Lecture 6). If you are interested in learning more, this book may become the most important book in the field.