

**Finance II (441) – Campus  
Corporate Finance**

**Professor Mitchell Petersen  
Winter 2006**

### Course Outline

Course Readings:

Brealey and Myers, Principles of Corporate Finance, Seventh Edition, McGraw Hill (BM)  
Course Packet for 441 - Petersen.

Cases:

"Arundel Partners: The Sequel Project" N9-292-140  
"UST Inc"  
"Liability Management at General Motors" N9-293-123.

### Capital Budgeting

Week 1:

Introduction (1)  
- Course objectives and goals.  
- Role of financial manager.  
- Market efficiency.  
BM: Chapter 13

Capital Budgeting when Capital Structure is Irrelevant: Review (2)  
BM: Chapter 9 & 25

Week 2:

Cash Flow Forecasting (3) **(Homework 1 due: Jan 16<sup>th</sup>)**  
BM: Chapter 29

Financial Options (4)  
- Calls and puts.  
- Payoff diagrams.  
BM: Chapter 20, Chapter 21 (skim)

Week 3:

Asset Options (5) **(Homework 2 due: Jan 23<sup>rd</sup>)**  
- Investment projects as real options.  
- New and improved NPV.  
BM: Chapter 22 and pages 268-278.  
The Options Approach to Capital Investment, A. Dixit and R. Pindyck

## Dividend Policy

Dividend Policy Irrelevance (6)

- MM irrelevance proposition.
- Taxes -- do they matter?

BM: Chapter 16

The Dividend Puzzle, F. Black

Week 4:

Arundel Partners: The Sequel Project N9-292-140

(Case due: Jan 30<sup>th</sup>)

Arundel Partners case questions

Dividend Policy: Signaling (7)

**(Homework 3 due: Wed, Feb 1<sup>st</sup> at noon)**

- Event study evidence.
- Asymmetric information.

Quarterly Dividend, J. Aharony and I. Swary

## Capital Structure

### Week 5:

#### Capital Structure Irrelevance (8)

- What is debt and equity?
- MM irrelevance proposition.

BM: Chapters 17 (skim Chapters 14 and 15)

Midterm Exam

**(February 9<sup>th</sup>)**

### Week 6:

#### Capital Structure: Taxes (9)

- Tax incentives of debt
- Personal taxes.

BM: Chapter 18 (pages 488–497) and Chapter 19  
Debt and Taxes, M. Miller

#### Capital Structure: Financial Distress (10)

- Costs of financial distress

BM: Chapter 18 (pages 497-515)

### Week 7:

#### Capital Structure: Signaling (11)

(Homework 4 due: Feb. 20<sup>th</sup>)

- Event study evidence.
- Cost of underpricing.

BM: Pages 418-419 and 511-515

The Capital Structure Puzzle, S. Myers

Equity Issues and Offering Dilution, P. Asquith and D. Mullins

#### Capital Structure: Conflicts of Interest (12)

BM: chapter 25 (skim)

Agency Costs of Free Cash Flow, M. Jensen

### Week 8:

#### UST Inc. Case

**(Case due: Feb 27<sup>th</sup>)**

UST Inc. Case Questions

Estimating Default Probabilities

## Applied Topics

### Risk Management and Hedging (13)

- Violations of the MM assumptions

BM: Chapter 27, pages 239-240, and pages 787-800 (skim)

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

### Week 9:

#### Compound and Exotic Securities (14)

- Convertible securities
- Callable/Exchangeable securities
- Warrants

BM: Chapter 23

#### Liability Management at General Motors Case

GM Case Questions

**(Case due: March 9<sup>th</sup>)**

### Week 10:

#### Credit Rationing and Private Capital (15)

(Homework 5 due: March 13<sup>th</sup>)

- Credit Rationing
- Bank lending
- Trade credit lending

BM: Chapter 30 (skim)

#### Mergers and Acquisitions (16)

BM: Chapter 33 and 34.

Takeovers: Their Causes and Consequences, M. Jensen

### Week 11: Final Exam

## REVIEW SESSIONS

There will be review session for both the midterm and the final. I will announce times in class. This information will also be posted on the corporate finance web page.

## ASSIGNMENTS

Deadlines for this class are non-negotiable. 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. Turning in assignments after the due date or taking an exam later than your scheduled time may provide a student with an "unfair advantage over other students." Students unable to complete the course assignments and exams by the due date will receive a zero and may therefore not pass this class.

### Homework Assignments:

Homework assignments are due on the day specified (see the syllabus) . Only homework 1 and 3 must be completed and turned in for credit.<sup>1</sup> They are worth 25 points. The rest should be done for your benefit. Doing the homework will make the concepts much clearer and will help you immensely when it comes to the exams. I will hand out answers on the due date, but will not collect your answers. Answers will also be available on the web page after the due date.

Your answers must not only be correct, but also be clear. Handing in your excel spreadsheets is not considered a sufficient answer. It should be clear both what your answer is and how you arrived at it. With modern software, you are able to integrate the spreadsheets and graphs into the text of your answers. This doesn't mean you should hand in elaborate presentations — these are homework assignments.

### Case Assignments:

Case memos (answers) are due the day we discuss the case. The memo should be 3-5 written pages plus tables. Brevity is a virtue. Do not repeat the facts of the case -- I have read it. You should turn in your memo at the beginning of class. Case questions are in your packet. You are expected to have read the case and prepared answers. Keep a copy of your answers as you will be expected to contribute to the class discussion based on your written answers. 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. In the real world, understanding the ideas is important -- being able to explain them to your boss and coworkers is equally important. Thus your case write ups will be graded both on your answers as well as how well you defend your proposed solution. I will not handout answers for the cases.

You may work in groups of up to 6 individuals on the cases. I strongly urge you to work in

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<sup>1</sup> Homework 1 may be done and handed in as a group, like the cases. Homework 3 must be done individually. I will explain Homework 3 in greater detail in class and what I mean by individually.

groups. In the past, groups have been more successful than individuals in preparing the cases. You will find a spreadsheet program essential for preparing your answers. I have provided you with data in Excel format for each case. The spreadsheets are available on the corporate finance web page.

### **GRADING**

There will be two exams. The midterm exam will be given during the fifth week of classes. It will cover the first four 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.

Assignment	Total Points
Face card	10
Homework assignment 1 and 3	25 each
Homework assignments 2, 4, and 5	0
UST case and GM case	25 each
Midterm	120
Final	240
<b>Total</b>	<b>470</b>

Total score = Face card + Homework 1 + Homework 3 + 2 cases + max( midterm+final, 3/2 final)

### **Other Administrative Details**

To preserve the integrity of the bidding system, I will not expand the class size ex-post. Auditors will only be allowed if the class does not close.

The class notes, homework assignments and answers, and past exams are the intellectual property of the instructor. You may not distribute class notes electronically or in any form to any one outside the class or outside Kellogg. You may not duplicate these notes for use by your employers after graduating from Kellogg without my written consent.

Appointments to discuss anything related to the course may be made by calling (847) 467-1281. Please make them a day in advance -- please do not just drop by my office. Leave a message if there is no answer. You may also reach me by e-mail at [mpetersen@northwestern.edu](mailto:mpetersen@northwestern.edu) or by fax at (847) 491-5719.

September, 2005

Supplementary Readings: These aren't readings which I want you to complete during the course. These are books which 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.

*Valuation: Measuring and Managing the Value of Companies*, by Tom Copeland, Tim Koller, and Jack Murrin, John Wiley, 1991. This is a practitioners guide to valuation, and is on the whole correct.

*The New Market Wizards*, by Jack Schwager. This book is a series of interviews with very successful traders. These are people who have beaten their respective markets.

*Liar's Poker: Rising through the Wreckage of Wall Street* by Michael Lewis. Lewis is a good story teller and this is his first story. It traces his experience right out of college working on Wall Street. He is at Salomon Brothers at the time the mortgage market was born. Many of the institutional details in the book are dated now. However, his comments on the Wall Street (especially traders) culture are very interesting. Plus, several of the people you will meet in this book will reappear over the next several decades in the world of finance.

*Merchants of Debt*, by George Anders. This is a about the leveraged buyout firm of Kohlberg Kravis Roberts and Company.

*Capital Ideas*, by Peter Bernstein. This book is a history of modern finance. If you read this book you will notice how closely academic and practical finance are intertwined.

*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 5). If you are interested in learning more, this book may become the most important book in the field.

*A Piece of the Action: How the Middle Class Joined the Money Class*, by Joseph Nocera. This book traces the history of consumer finance in the U.S. from the fifties through the nineties. Its relevance goes beyond consumer finance in the U.S. Many of the financial structures that our generation takes for granted were created during this period. Thus to understand where we are today, this history provides an excellent background. I think you will find the discussion of credit card drops fascinating.

*When Genius Failed: The Rise and Fall of Long-Term Capital Management*, by Roger Lowenstein. Of the many books written on LTCM and its collapse, I found this one to be the most useful. The events surrounding LTCM's incredible success and dramatic destruction are a lesson in the incredible value of models of economic activity and financial markets – it is also a lesson on their danger – which I hope you learn in class.

*Moneyball: The Art of Winning an Unfair Game* by Michael Lewis. Technically this is a book about baseball in general, and the strategy used by the Oakland A's to win. At a deeper level, it is a

wonderful description of the efficient market theory. When is it possible for you to develop a strategy that beats the market (i.e. the other players in the market). If you have developed such a strategy, and used it successfully, why don't other imitate you and thus compete away the effectiveness of your strategy. If you can't get your head around the infamous Efficient Market's Hypothesis, but love baseball, this book may be for you.

*The Essays of Warren Buffet: Lessons for Corporate America*, by Warren Buffet and Lawrence Cunningham. Warren Buffets annual letters to shareholders, which are part of Berkshire Hathaway's annual report, are his commentary on what is wrong with Corporate American (and right with Berkshire Hathaway). This book is a compilation of these letters organized by topic. Notice that the issues, if not the point of view, examined in this book are the same issues we have been grappling with in class.

## Contents of Course Packet -- Campus Class

- 0) Contents of course packet.
- 1) Course outline.
- 2) Review of financial concepts
- 3) Lecture outlines (Lectures 1-16)
- 4) Supplementary readings (see syllabus)
  - A) Dixit, Avinash and Robert Pindyck, 1995, "The Options Approach to Capital Investment," *Harvard Business Review* May/June 1995, 105-115.
  - B) Black, Fischer, 1976 "The Dividend Puzzle" *Journal of Portfolio Management* 2, 5-8.
  - C) Aharony, Joseph and Itzhak Swary, 1980, "Quarterly Dividend and Earnings Announcements and Stockholders' Returns: An Empirical Analysis," *Journal of Finance* 35, 1-12.
  - D) Miller, Merton, 1977, "Debt and Taxes," *Journal of Finance* 32, 261-274.
  - E) Myers, Stewart, 1984, "The Capital Structure Puzzle," *Journal of Finance* 39, 575-592.
  - F) Asquith, Paul and David Mullins, 1986, "Equity Issues and Offering Dilution," *Journal of Financial Economics* 15, 61-89.
  - G) Jensen, Michael, 1986, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers," *American Economic Review* 76, 323-329.
  - H) Froot, Kenneth and David Scharfstein and Jeremy Stein, 1994, "A Framework for Risk Management," *Harvard Business Review* November/December 1994, 91-102
  - I) Jensen, Michael, 1988, "Takeovers: Their Causes and Consequences," *Journal of Economic Perspectives* 2, 21-48.
- 5) Homework assignments
  - A) Homework assignment one
  - B) Homework assignment two
  - C) Homework assignment three
  - D) Homework assignment four
  - E) Homework assignment five
- 6) Cases
  - A) Arundel Partners case questions
  - B) Arundel Partners case
  - C) U S T Inc. case questions
  - D) U S T Inc. case
  - E) S&P Debt Rating Definitions
  - F) Liability management at General Motors case questions
  - G) Liability management at General Motors case
- 7) Past exams
  - A) Midterm – Winter 2005
  - B) Midterm answers – Winter 2005
  - C) Final – Winter 2005
  - D) Final answers – Winter 2005