Introduction to Corporate Finance

ECON 255, Summer 2018
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Office Hours: Before class and by appointment.

Course Pre-Requisites
This course requires Introductory Microeconomics and comfort with algebra. You will also need familiarity with probability concepts such as expected value and variance. No prior knowledge of finance is necessary but a desire to learn about these concepts will be helpful. The topics introduced in class will be new to most students but they are not difficult and will be made accessible.

Course Description
The goal of this course is to introduce the fundamental underpinnings of finance and to create a broad financial toolkit for students. The class will start with present value analysis and apply this knowledge to annuities and perpetuities. We will then examine bonds, equities and corporate capital structure and use discounting techniques for their valuation. Next we will discuss risk (diversifiable and nondiversifiable) in the equity market and how risk it is priced. The efficient portfolio frontier will be defined and then motivate The Capital Asset Pricing Model. We will also introduce the Arbitrage Pricing Theory. The price of risk can then be used by corporate managers to make proper investment decisions. Option pricing techniques will also be studied (binomial and Black-Scholes-Merton) and applied to corporate capital structure.

We will introduce the Modigliani-Miller Theorem, agency problems and the pecking order of capital. We will also discuss how the capital structure (the composition of debt and equity) of the firm can alter agency problems, reduce the cost of capital but increase the likelihood of financial distress.

Course Requirements and Grading
Problem Sets (4): (15%) Weekly applications of the concepts introduced in the class.

Weekly Quizzes (4): (20%) Short tests to help everyone understand their progress with the material. These quizzes will be closed book and you may use a calculator.

Midterm Exam: (20%) Closed book but you will be provided an formula sheet. You may also use a calculator.

Final Exam: (35%) Closed book but you will be provided an formula sheet. You may also use a calculator.

Class Participation, feedback and Attendance: (10%) The quality of your questions, comments and contributions will add greatly to the course discussions and will be judged accordingly. Each class we will work on numerical problems of topics introduced. Please bring a calculator and scratch paper. Every Friday (before 11:59 pm) during the summer term you will be required to send me a brief email that will answer the following questions:

1) What topics did you enjoy in class this week and why?
2) What topics/jargon were confusing or difficult?
3) What topics would you like to be emphasized or deemphasized?

The goal of your feedback is to personalize your experience in class and improve the overall course. Your suggestions and ideas are not only important to me but required!

To maximize comprehension and participation no electronic devices will be allowed during lectures other than a calculator.

Textbooks

The required textbook for this course is Corporate Finance, 10th edition, by Ross, Westerfield and Jaffe (McGraw-Hill 2012). No other books are necessary but here are some others that will supplement the course topics:


**Academic Integrity**

We will review what plagiarism is, how to identify it, and how to avoid plagiarizing in our own research. We will look at examples of direct and more subtle forms of plagiarism and stress the importance of integrity in academic research. (For more suggestions visit the Writing Center website at [http://www.yale.edu/bass/faculty/index.html](http://www.yale.edu/bass/faculty/index.html))

**Course topics**

**May 28th**
Chapters 1-3 (skim, background) Chapters 4-6

**May 30th**

**June 1st**
1st quiz
Lecture 3: Dividends and equity valuation. Dividend policy, clientele effect and signalling. Agency problems (Equity and management. Bonds and equity). Operating income and EBITDA. Chapters 9 and 19

**June 4th**
1st problem set due
Chapters 16 and 19

**June 6th**
Chapter 11
June 8th 2nd quiz

June 11th 2nd problem set due
Lecture 7: Capital Asset Pricing Model. Chapters 11 and 13

June 13th 3rd quiz
Lecture 8: Arbitrage Pricing Theory. Chapters 12

June 15th Midterm exam

June 18th 3rd problem set due

June 20th
Lecture 11: Black-Scholes-Merton model. Put call parity. Chapters 22-23

June 22nd 4th quiz

June 24th 4th problem set due
Lecture 13: Mergers and acquisitions. IPOs and LBOs. Corporate governance, agency issues, employee stock options and executive compensation. Chapters 20 and 29

June 27th final exam prep
Lecture 14: Pecking order theory of capital and signalling. Debt and equity as contingent claims. WACC. Chapters 7, 18, 17.7 and 22.9

June 29th
Lecture 15: Final exam!