Syllabus

Course Description
This is a first course in corporate finance which is designed to introduce students to the concepts and techniques necessary to analyze and implement optimal investment decisions by firms. The course studies the effect of time and uncertainty on decision making. Topics include basic discounting techniques, stock and bond valuation, capital budgeting under certainty and uncertainty, asset pricing models and efficient markets.

Prerequisites
The prerequisite for this course is knowledge of probability and statistics. This requirement may be satisfied with either (i) prior or concurrent registration in Decision Sciences 433, (ii) sufficient previous course work in statistics. Familiarity with basic financial accounting (Accounting 430) and microeconomics (Managerial Economics 430) is recommended.

Textbook
The required textbook for the course is: Jonathan Berk and Peter DeMarzo, “Corporate Finance”, 2nd edition, Prentice Hall. You will also use this text for Finance II (441). There is also a course packet. Copies of the textbook have been put on reserve in the library.

Course Requirements and Evaluation
The course grade will be determined by a 24%/26%/50% weighting on your best six problem sets/your midterm/your final.

There will be eight problem sets. Three of these are cases. Each of your best six problem sets will count toward 4% of your course grade (in other words the two lowest problem set grades will be dropped). Problem set grades are between 0 and 4. Problem sets are due back at the beginning of class on Thursdays. Late problem sets will not be accepted. You should work on the problem sets in groups of four people. Groups will be randomly generated. At the end of the quarter I will ask you to evaluate your peers based on their contribution to the group’s output. These evaluations will determine whether each group member gets the group’s score on problem sets, or a score lower by 25%.
I expect you to come to class on time, well prepared and to make quality contributions to class discussions. Repeatedly failing to meet this expectation will lead to a 10% loss in the overall points you will receive in the class based on your homework, midterm and final exam performance.

The midterm will be a take-home exam, which should take about 3 hours to solve. I will post it on the course website on Friday, October 26 (in PDF format). The midterm must be handed in by 12:00pm on Thursday, November 1. No late midterms will be accepted.

The final will be an in-class exam and will be given during finals week.

The exams are open book, open notes. You may use calculators and laptops for the exams, but no assistance (from group members or anyone else) is allowed.

**Office Hours and Review Sessions**

My office hours are on Mondays, 1:00pm-2:00pm in office 4225. Office hours start in week 2. You can also ask questions after class or e-mail me at c-kuhnen@kellogg.northwestern.edu.

The two main review sessions are in week 5 and 10, prior to the midterm and the final. These last 2 hours each. Regular review sessions will be held weekly, except in week 1, 5 and 10. Review sessions are intended only for those of you who are having difficulties with the course. The majority of you should not feel obliged to go to these sessions.

**Course Web Page**

Class-related information will be posted on the course web page, available on Blackboard.

**Honor Code, Class Room Etiquette**

The first sentence of the Kellogg Honor Code reads: “All students enrolled in a course offered by the Kellogg School of Management agree to abide by the Kellogg Honor Code.” If you are unsure of what this means, please read the honor code. If you are in doubt about whether something is acceptable under the honor code, you should not hesitate to ask me.

You will be allowed to work in groups for problem sets. The solutions you hand in should be independent work of your group. Before the problem sets are handed in you should discuss the problems only with members of your group. Do not discuss the problems with other students in this or other 430 classes or with former Finance 430 students. You should not receive any assistance on the midterm or the final from anyone. Violators will fail the class and may be expelled.
You are also expected to follow the Kellogg code of classroom etiquette. Please be respectful of your fellow students and do not use your laptop for anything other than note taking or Excel calculations during class. Also, please turn off your cell phone before class.

**Miscellaneous**
You should bring your name plate to class and have it displayed throughout the quarter. Familiarity with Excel (or an equivalent spreadsheet program) is recommended. There are handouts titled “Use of Financial Functions in Excel” and “Use of Statistical Functions in Excel” on the course website. The spreadsheets referred to in these notes are also linked on the course web page.

**Course Outline**
Below is an approximate schedule for the class. I will distribute lecture notes at the beginning of lectures on Mondays. I will also make the lecture notes available on the class web page.

Indicated below are the readings for each class. ”BD” refers to the textbook by Berk and DeMarzo. Please read the corresponding material in the textbook prior to each lecture. To further your understanding of the material, you can work out review questions in the assigned textbook chapters (solutions are available on the publisher’s website at myfinancelab.com).

**Week 1 Net Present Value (NPV).**
Readings: BD chapters 3 and 4. (Optional: “Use of Financial Functions in Excel” - on course website.)
Handouts: Syllabus, Notes Week 1, Problem Set 1.

**Week 2 More on NPV.**
Readings: BD chapter 5 (skip 5.3).
Handouts: Notes Week 2, Problem Set 1: Solutions, Problem Set 2.
Problem set 2 due.
Review session: Wednesday, October 3, 1:30pm-2:30pm, room G44.

**Week 3 Capital Budgeting.**
Capital budgeting with known cash flows. Determining cash flows. Alternatives to NPV.
Readings: BD chapters 6 and 7.
Handouts: Notes Week 3, Problem Set 2: Solutions, Problem Set 3.
Problem set 2 due.
Review session: Wednesday, October 10, 1:30pm-2:30pm, room G44.

**Week 4 Stock Valuation.**
Readings: BD chapter 9.
Handouts: Notes Week 4, Problem Set 3: Solutions, Problem Set 4.
Problem Set 3 due.
Review session: Wednesday, October 17, 1:30pm-2:30pm, room G44.

**Week 5 Bond Valuation.**
Term structure of interest rates. Forward rates and forward loans. Duration.
Readings: BD chapter 8 and section 5.3.
Handouts: Notes Week 5, Problem Set 4: Solutions, Problem Set 5.
Problem Set 4 due.
Midterm posted on course website on the evening of Friday, October 26.
Midterm exam review session: Wednesday, October 24, 1:30pm-3:30pm, room G44.

**Week 6 Understanding Diversification.**
Introduction to portfolio optimization.
Readings: BD sections 10.1-10.6.
Handouts: Notes Week 6.
Midterm due by 12pm on Thursday, November 1.
Review session: Wednesday, October 31, 1:30pm-2:30pm, room G44.

**Week 7 Risk and Return.**
What is risk? Portfolio frontier.
Readings: BD sections 11.1-11.6. (Optional: “Use of Statistical Functions in Excel” – on course website.)
Handouts: Notes Week 7, Problem Set 5: Solutions, Midterm Solutions, Problem Set 6.
Problem Set 5 due.
Review session: Wednesday, November 7, 1:30pm-2:30pm, room G44.

**Week 8 The Capital Asset Pricing Model (CAPM).**
The price of risk. The Capital Asset Pricing Model. Alternatives to the CAPM.
Handouts: Notes Week 8, Problem Set 6 Solutions, Problem Set 7.
Problem Set 6 due.
Review session: Wednesday, November 14, 1:30pm-2:30pm, room G44.
Week 9 Capital Budgeting Under Uncertainty.
Estimating project betas. Leverage. Uncertainty over time.
Readings: BD chapters 12 and 14.
Handouts: Notes Week 9, Problem Set 7: Solutions, Problem Set 8.
Problem Set 7 due.
Review session: Wednesday, November 28, 1:30pm-2:30pm, room G44.

Week 10 Market Efficiency.
Information and capital markets.
Handouts: Notes Week 10, Executive Summary of Finance 430, Problem Set 8: Solutions.
Problem Set 8 due.
Final exam review session: Wednesday, December 5, 1:30pm-3:30pm, room G44.

Week 11 Final Exam. Time and location TBD.