Syllabus

Course Description
The goal of this course is to introduce students to the concepts and techniques necessary to implement optimal investment decisions by firms and investors. The course studies the effect of time and uncertainty on financial decision making. Topics include discounting techniques, applications to personal finance, bonds, stocks and options valuation, optimal portfolios, and project valuation.

Textbook and course pack
No textbook is required for this course. If you would like additional reading material aside from the lecture notes, which are posted on Canvas, you may want to refer to Corporate Finance, 10th edition, by Ross, Westerfield, Jaffe (RWJ). This is an older edition of the book, and should be available online for a relatively low price. If you would like additional practice problems, I have suggested several problems from RWJ for each of the topics covered in class, as detailed below. Solutions to all RWJ problems are available in Canvas, under Files/Practice Problems.

Grading: Homeworks: 30%; Midterm Exam: 35%; Final Exam: 35%.

Homeworks and Exams
There are thirteen short homeworks, which are to be submitted on-line on Canvas. Generally, after each lecture, you have to do a homework containing two or three questions. Completing this homework will ensure you are ready for the next lecture. These short and frequent homeworks will help you stay on top of the material every week. Each homework must be done individually, without consulting anyone. The midterm and final will be 3-hour long, open-notes exams. You may use calculators and laptops for the exams. You may not receive assistance from anybody, for homeworks or exams.

Honor Code
It shall be the responsibility of every student at the University of North Carolina at Chapel Hill to obey and support the enforcement of the Honor Code. The Honor Code prohibits plagiarism, falsification or misrepresentation of an academic assignment, unauthorized collaboration on academic work, and cheating on examinations or other academic assignments. If you have any questions about whether a proposed action is permitted in this class, you should ask the instructor.
Office Hours and Review Sessions
My office hours are on Thursdays during 12:30-1:30pm via Zoom. Also, there will be regular weekly review sessions on Thursdays during 3:30-4:30pm, and special review sessions prior to the midterm and the final exam. These will be held in-person with the option to join via Zoom. During the first week of class I will hold an extra review session on Saturday (August 28) during 11:00am-1:00pm (on Zoom only), to make sure all students get to a good start in Financial Tools this Mod. Zoom links to all of course-related events are in your Calendar in Canvas.

Miscellaneous
Class-related information will be posted on the course Canvas page. Be ready to use Excel during class to work on problems. Install the ANALYSIS TOOLPACK and SOLVER add-ins in Excel. If you need to attend class on Zoom, please have your video on, and have your name clearly displayed on the screen.

Course Outline

**Topic 1. Basics of cash flow valuation, and personal finance applications**

**Topic 2. Bonds**
Optional practice problems: RWJ Ch. 8: Problems 2, 5-6, 15, 23. Ch. 25: Problems 6, 8, 12.

**Topic 3. Stocks**
Optional practice problems: RWJ Ch. 9: Problems 4, 7, 15-16, 27, 29, 35.

**Topic 4. Options**
Optional practice problems: RWJ Ch. 22: Concept Questions 4-6. Problems 2, 6-7, 10, 19, 21.

**Topic 5. Risk, diversification, and optimal portfolios**
Optional practice problems: RWJ Ch. 11: Problems 27-28, 30, 38, Concept Questions 9-10.

**Topic 6. The Capital Asset Pricing Model (CAPM)**
Understanding the CAPM. Intuition, regressions, alphas vs. betas. Implementing the CAPM. Regression Analysis using Excel. Estimating betas, alphas, co-movement.
Optional practice problems: RWJ Ch.11: Problems 16, 18, 31, Concept Questions 6 and 8.

**Topic 7. Cost of Capital: Capital Structure, Differences Across Business Units**
Optional practice problems: RWJ Ch. 16: Concept questions 2-3, Problem 21.