Course Description
The goal of this course is to introduce students to the concepts and techniques necessary to analyze and 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, asset pricing models and efficient markets.

Textbook and course pack
No textbook is required for this course. However, the course pack is required. If you would like additional reading material, you may want to refer to Corporate Finance, 10th edition, by Ross, Westerfield, Jaffe (RWJ).

Grading: Attendance: 10%; Homework 0: 2%; Homeworks 1, 2, 3 and 4: 8% (i.e., 2% each); Midterm Exam: 40%; Final Exam: 40%.

Attendance
The Kenan-Flagler Business School expects that MBA students will attend all classes. Please arrive on time in your assigned section. We will take attendance in all core classes using a sign-in sheet. Sign your name and your name only. You will earn full attendance points (i.e., 10%) if you miss 0, 1 or 2 lectures, and partial points (i.e., 4%) if you miss 3 lectures. If you miss 4 or more lectures, you will lose all attendance points.

Homeworks and Exams
Aside from the homework that was due in the first day of class, there will be 4 additional individual homeworks, to be submitted on-line on Canvas. The midterm and final will be 3-hour long, in-class, open-notes exams. You may use calculators and laptops for the exams. You may not receive assistance from anybody, for either 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 questions about your responsibilities under the Honor Code, please consult the document *The Instrument of Student Judicial Governance*. 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 12:45-1:45pm in office 4407. You can also ask questions after class or e-mail me at camelia.kuhnen@kenan-flagler.unc.edu. Weekly review sessions will take place on Thursdays, 3:30-4:30pm in MC 2250. Special review sessions prior to the midterm and the final exam will be held on Friday, August 29 and on Wednesday, October 8. Review sessions are intended 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 Canvas.

**Miscellaneous**
Bring laptop/Excel to class to work on problems. Install ANALYSIS TOOLPACK and SOLVER add-ins in Excel before Lecture 2. Display your name plate in class, throughout the course.

**Course Outline**

**Lecture 1. Introduction and Time Value of Money**
Optional practice problems: RWJ Ch. 4: Problems 1-5, 11.

**Lecture 2. Special Cash Flow Streams and Personal Finance Applications**
Perpetuities, annuities, growing perpetuities and growing annuities, with applications to personal finance. Examples on paper and in Excel.
Optional practice problems: RWJ Ch. 4: Problems 26, 27, 28, 44, 53.

**Lecture 3. Compound interest, APR vs. EAR, Personal Finance Applications**
Compound Interest. Annual Percentage Rate (APR) vs. Effective Annual Rate (EAR). Understanding mortgages and refinancing decisions, car loans.
Optional practice problems: RWJ Ch. 4: Problems 15, 16, 30, 38, 57, 65.

**Lecture 4. Bond Basics and Valuation**
Bond basics. Types of bonds. Zero-coupon and coupon bonds. Valuing project cash flows using
the zero-coupon yield curve.
Optional practice problems: RWJ Ch. 8: Problems 2, 5, 6, 23.

Lecture 5. Bonds: Measuring and managing interest rate risk
Price sensitivity to yield curve shifts. Duration analysis. Duration matching.
Optional practice problems: RWJ Ch. 8: Problem 15. Ch. 25: Problems 6, 8 and 12.

Lecture 6. Stock Valuation
Optional practice problems: RWJ Ch. 9: Problems 4, 7, 15, 16.

Lecture 7. Stock Valuation: Excel Examples and Current Events Discussion
Excel examples. Discussion of current IPOs, earnings reports, and stock price fluctuations.
Optional practice problems: RWJ Ch. 9: Problems 27, 29, 35.

Lecture 8. Options
Optional practice problems: RWJ Ch. 22: Concept Questions 4, 5, 6. Problems 2, 6, 7.

Lecture 9. Options: In-Class Excel Examples and Current Events Discussion
Optional practice problems: RWJ Ch. 22: Problems 10, 19, 21.

Lecture 10. Risk and Diversification
Optional practice problems: RWJ Ch. 11: Problems 27, 28.

Lecture 11. Optimal Portfolios
The Capital Allocation Line. Optimal portfolios with a riskless asset and two or more risky assets. The MVE portfolio. The Capital Market Line.
Optional practice problems: RWJ Ch. 11: Problems 30, 38.

Lecture 12. Optimal Portfolios: Excel Examples and Current Events Discussion
Excel examples. Discussion of smart and not-so-smart investment strategies.
Lecture 13. The Capital Asset Pricing Model
Understanding the CAPM. Intuition, regressions and the Security Market Line. Alphas vs. betas. Implementing the CAPM.
Optional practice problems: RWJ Ch. 11: Problems 16, 18, 31.

Lecture 14. CAPM: In-Class Excel Examples and Current Events Discussion
Optional practice problems: RWJ Ch. 11: Concept Questions 6 and 8.

Lecture 15. Cost of Capital: Capital Structure, Differences Across Business Units
Optional practice problems: RWJ Ch. 16: Concept questions 2, 3.

Lecture 16. Cost of Capital and Valuation: Excel Examples, Current Events
Excel examples. Cost of capital calculation for current IPO firms, with discussion of comparables, leverage, equity vs. asset betas.
Optional practice problems: RWJ Ch. 16: Problem 21.

Lecture 17: Market efficiency
Optional practice problems: RWJ Ch. 14: Concept questions 18, 23, 25.

Important Dates
Homework 0 (Self-Evaluation): due by start of class, Monday, August 11, on-line on Canvas
Homework 1: due Sunday, August 17, by 10pm, on-line on Canvas
Homework 2: due Thursday, August 28, by 10pm, on-line on Canvas
Midterm Exam Review Session: Friday, August 29, 6:00pm-9:00pm, in Koury Auditorium
Midterm Exam: Saturday, August 30, 9:00am-12:00pm, in McColl classrooms
Homework 3: due Tuesday, September 16, by 10pm, on-line on Canvas
Homework 4: due Thursday, October 2, by 10pm, on-line on Canvas
Final Exam Review Session: Wednesday, October 8, 9:30am-12:30pm, in Koury Auditorium
Final Exam: Wednesday, October 8, 6:30pm-9:30pm, in McColl classrooms
Regular Review Sessions: Thursdays, 3:30-4:30pm in McColl 2250