SYLLABUS

The goal of this course is to provide a framework for understanding the key theoretical and practical models used in the financial world. After introducing some basic pricing and valuation tools, we will address how to use these tools to provide a foundation on how financial assets are priced in the marketplace. We will go on to examine the tradeoffs between risk and return, and explore optimal portfolio selection and analysis. We will also discuss some derivatives markets (futures and options) and evaluate how these securities can be used for both hedging and speculative purposes. Finally we will introduce corporate valuation using net present value and alternative methodologies for pricing both projects and companies.

CLASS MEETING TIMES AND FORMAT

Classes will be in a lecture format, but I encourage students to ask questions and to challenge ideas and concepts that are introduced. I will hold weekly office hours, and will also be available at other times by appointment.

Class attendance is essential, as much of the material that we will cover is not in the (optional) textbook, and the lecture handouts by themselves are not sufficient to understand the material fully. Repeated absence from class is likely to have a negative impact on your grade, as I will count anything that I say in class to be fair game for questions in problem sets and exams.

TEXTS:

Lecture Notes: Will be posted on Sakai.

Many students find class attendance and the posted lecture notes to be sufficient. However, if you prefer to have other texts relating to the material, the following two books may be helpful:

Brealey and Myers: *Principles of Corporate Finance*  OPTIONAL
Bodie, Kane and Marcus: *Investments*  OPTIONAL

ASSIGNMENTS, PROJECTS, EXAM AND GRADING:

Your grade for this course will be based on a combination of 7 problem sets (of which each individual student’s best 6 scores will count for 30%), 3 case studies in teams (20%), class participation (5%), and a final exam (45%). Students may also earn extra credit for this class via the Bloomberg Aptitude Test (BAT) – see below.
Problem Sets

The problem sets will be posted on Sakai, typically on a Wednesday, to be handed in (physical copies) the following Monday at the beginning of class. Problem sets may not be handed in late under any circumstances. I understand that there may be exceptional circumstances relating to illness, family emergency, etc. that may prevent you from being able to submit every problem set on time. For this reason, I will drop the lowest problem set score for each student before calculating final grades for the class.

While I encourage students to collaborate on problem sets, each student must hand in his or her own completed version. If you work with others on the problem sets, bear in mind that the final exam is based on independent performance, which should temper your desire to ‘free-ride’ on problem sets, rather than participating actively in the group effort.

Be aware that accuracy is an important component of the grade received on all problem sets, the projects, and the exam. In other classes, you might lose just one mark if you use the right method but make a numerical error and arrive at the wrong solution. You should not assume that this type of grading policy will apply in this course. Clear and lucid presentation of your solutions will also work in your favor.

The case studies and some problem sets will necessitate the use of the spreadsheet software Excel. If you are unfamiliar with Excel, this will be an excellent opportunity to get some experience with it. It is used throughout the business world, and especially in finance/economics/accounting-related fields.

Case Studies

The case studies will require students to work in self-selected teams of 3 or 4. These are:

- **Project Scout**: new product launch from General Mills
- **Impala** case study from General Motors

Case Study Competition

- There is one other team-based case study – the BCG Case Study Competition, which is also open to undergraduates outside of Econ 372/572. Please note that this competition is open to all Duke sophomores and juniors, not just students in Econ 372. Hence **sophomores and juniors in Econ 372 may form teams with other sophomores & juniors who are not in this class**, and in fact are encouraged to do so. For this competition, each team must have 3 members (unlike the earlier case studies, 4 member teams are not permitted).
- **Seniors and MA students** may only form teams among themselves; that is, they may not form teams with any sophomores or juniors, and may only form teams with students registered in Econ 372/572.

Class Participation

While this is a large lecture format, I still encourage students to ask questions or challenge ideas that are presented. Students identifying any numerical errors in material that I write on the board during class should also be sure to point this out. Finally, students are particularly encouraged to participate with relevant questions during the visiting lectures relating to the General Mills and General Motors case studies, as a way to maximize their participation scores for the class.
Final Exam

The final exam for the course is cumulative, and will take place on Tuesday, April 28 from 2pm – 5pm, the date and time specified on the university exam calendar.

Bloomberg Aptitude Test (BAT)

The BAT is a general finance knowledge test, utilized by students to demonstrate their interest in and knowledge of the financial markets; and by employers in the financial markets as an incremental measure of a candidate’s suitability for a particular role. The test is multiple choice, takes two hours, and covers a range of topics such as Economics, News Analysis, Analytical Skills, and Chart and Graph Analysis.

The test will be offered at Duke on a Sunday afternoon (date TBD). Students’ scores in this optional exercise have the potential to increase their overall grade in the class by up to 2%. Since I do not “curve” the grade for this class, you cannot hurt your overall grade by choosing not to participate in the BAT test – however, you can improve your grade by taking the test and performing well relative to your peer group (other students in the class who choose to take the BAT).

I will make a large sample of BAT test questions available as we get close to the BAT test date. You can also learn more about the BAT on the web, at http://about.bloomberginstitute.com/

Regrade Policy

I will only accept requests to regrade a problem set if you believe that your true grade is more than 4% higher than your written grade on that problem set. That is, I actively discourage “grade grubbing”. You should also be aware that if you submit a problem set for a regrade, I will regrade the entire problem set, and that this has potential to result in a reduction of the homework grade, if I think that the grader has been too generous in any of the marks awarded.

The same regrade policy applies to the exam; that is: only submit an exam for a regrade if you believe that there is a grading error (I’ll permit requests to check errors of 2% or more for exams); and assume that I’ll regrade the entire exam and may remove marks as well as adding them.

Any regrade requests should be submitted, in writing, within 7 days of the problem set (or exam) being returned to you.
COURSE SCHEDULE

Introduction to Discounting

Rates of return. Future Value and present value. Present value of multiple cashflows.

Bond Markets

Bond prices and yields. Forward rates. Duration, convexity, and hedging. The term structure of interest rates and theories of the yield curve slope. Risk management in the fixed income markets.
Problem Sets 1 & 2 (Due Jan 26, Feb 2)

Equity Securities and Corporate Valuation

Net present value and its use in valuing corporate projects. Alternatives to NPV. Valuation via multiples analysis.
General Mills Case Study (in self-selected teams of 3 – 4 students, Due Feb 9)
General Motors Case Study (in self-selected teams of 3 – 4 students – due Feb 16)

GENERAL MILLS VISITING LECTURE: CASE STUDY 1
Feb 16: Don Mulligan, CFO of General Mills, presents the General Mills Case Study debrief.

GENERAL MOTORS VISITING LECTURE: CASE STUDY 2
Feb 18: Dave Cummings, General Motors.

Portfolio Theory


Problem set 3 (due Feb 23)

Capital Asset Pricing Model: CAPM


Problem set 4 (due Mar 2)

Spring Break
March 9 – March 13
Performance Measurement


*Problem Set 5 (due Mar 23)*

**BCG CASE STUDY COMPETITION**

*Competition registration deadline for sophomores and juniors, Wednesday, March 4.* This competition is open to all Duke sophomores and juniors, regardless of whether they are registered in Econ 372.

- Sophomores and Juniors will register online for the competition, and are welcome to form teams with sophomores and juniors who are not in Econ 372.
- Seniors and MA students do *not* need to register, and may only form teams with other seniors and MA students enrolled in Econ 372/572
- **Competition guidelines** available to all students on Wednesday, March 18.

*Deadline for report submission: Monday, March 30*

- Sophomores and Juniors will submit multiple copies, following directions on the competition website, to be considered for the Panel Presentations with BCG
- Seniors and MA student teams will submit one copy of their research report to Professor Rasiel, and are not eligible to present at the BCG Panel.

Derivatives


*Problem Sets 6 & 7 (due Apr 6 & Apr 13)*

**Review and wrap-up**

April 20, 22

**Final Exam**

Tuesday, April 28, 2pm – 5pm (as shown on the Duke Examination Schedule calendar).