SYLLABUS

COURSE SYNOPSIS

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. Anything that I say in class is 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 8 problem sets (of which each individual student’s best 7 scores will count for 25%), 2 case studies in teams (15%), a midterm exam (20%), and a final exam (40%).

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.
You are welcome to work in teams on problem sets, with up to four team members. Please make sure that every team member’s name is written clearly, with first and last name matching their “official” first and last name on STORM. Students whose first or last name does not match their official Duke name will not receive a grade.

If you do choose to 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

**Midterm Exam**

There will be a midterm exam, in class, on Wednesday, March 9. The exam will include all material completed up to that point. If you are unable to attend the midterm for any reason, all of the weight from the midterm will be moved to the final exam. It will not be possible to arrange “makeup” midterm exams.

**Final Exam**

The final exam for the course is cumulative, and will take place on Tuesday, May 3 from 9am – 12pm, the date and time specified on the university exam calendar.

**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 exams; 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. Graded problem sets will be placed on the shelves in the hallway just along from my office in the Social Science building.
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 Feb 1, Feb 8)

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 15)

GENERAL MILLS VISITING LECTURE: CASE STUDY 1
Feb 15: Don Mulligan, CFO of General Mills, presents the General Mills Case Study debrief.

Portfolio Theory


Problem set 3 (due Feb 22)

General Motors Case Study (in self-selected teams of 3 – 4 students, Due Feb 29)

GENERAL MOTORS VISITING LECTURE: CASE STUDY 2
March 2: David Cummings from General Motors presents the General Motors Case Study debrief.

Midterm Exam
March 9 in class

Spring Break
March 14 – March 18
Capital Asset Pricing Model: CAPM


Problem Set 4 (due Mar 28)

Performance Measurement


Problem Sets 5 & 6 (due April 4 & April 11)

Derivatives


Problem Sets 7 & 8 (due Apr 18 & Apr 25)

Review and wrap-up
April 25 & April 27

Final Exam
Tuesday, May 3, 9am – 12pm (as shown on the Duke Examination Schedule calendar).