

# Econ 422 A: Finance, Capital and Investments Winter 2016

This course is an introduction to financial economics and asset pricing. We will cover the analytical tools and finance theory that Wall Street uses to value securities and corporations use to make investment decisions. Key topics are valuation of assets with net present value and no-arbitrage, informational efficiency of asset markets and risk management.

Financial economics is a quantitative subject and we will use mathematical techniques that will include statistics and calculus. Course prerequisites are: 2.0 in econ 300; either econ 311, stat 311, math 390, stat 390, or qmeth 201. You will also need to know how to use Excel.

## Instructor

Professor Mu-Jeung Yang

- Office: Savery 327
- Office hours: Tuesdays 1215p-115pm or by appointment
- Email: [mjyang@uw.edu](mailto:mjyang@uw.edu). Please start your subject line with [Econ 422]: doing so will ensure I read your emails first.

## Class Meeting times

Tuesdays and Thursdays, 1:30pm-3:20pm, Winkenwerder Forest Sciences Laboratory (WFS) 201

## Class website

The website for this class will be:  
[http://faculty.washington.edu/mjyang/teaching/Econ422\\_W16/](http://faculty.washington.edu/mjyang/teaching/Econ422_W16/)

## Class Grading

- Problem Sets: 10%
- Midterm 1: 40%
- Midterm 2: 50%

If you cannot make an exam date, the following policy applies: major exceptions are only allowed in case of medical emergencies that concern either you or your family. In this case, please provide a certification by a doctor on the exam date, since later certification cannot be accepted (see Academic Conduct policies below). **If you already know that you cannot make the final exam date, you will not be able to take this class.**

If you miss a midterm, I will reweight the final and it will count 90% instead of 50%. If you miss the final, you will need to take a make-up exam next quarter. This exam will be significantly harder than the exam at the end of this term, reflecting the fact that you have more time for preparation and that the make-up final should only be taken in exceptional cases. In case you cannot make the final and do not take the make-up final, I will assign an incomplete for this class.

Exams will be closed book. That means that no notes, including previous midterms, are allowed.

## Problem Set Guidelines

- **If you cannot attend the date at which problem sets are due, email me an electronic version of your solution, completely formatted and with your name on the problem set. If the printed version of the problem set does not contain your name, you will not get credit for the submission.** Problem sets need to be here by the end of the lecture.. Late problem sets cannot be accepted, since they all go together with a grader!
- You can work in groups but you need to submit individually.
- Solutions will be available in hard copy, to be picked up in class or at my office. **There will not be electronic versions of the solution available, sorry.**

## Textbooks

- We will use Bodie, Kane and Marcus (BKM) "Investments", 10th edition. Previous editions can be used, but you need to figure out the corresponding pages on your own. I will follow the book for around 60% of the material, but you should make sure that you understand the lectures, especially if you aim for a very good grade in the class.
- For a review of intermediate micro-economics, I recommend to check out the following chapter's of Varian's Intermediate Microeconomics: "Intertemporal Choice", "Asset Markets", "Uncertainty" and "Risky Assets".

## Additional Readings / Material (Optional)

I recommend finance/business related publications such as the WSJ (<http://subscribe.wsj.com/semester>), the FT or the Economist. In addition, there are

some additional readings listed that help to make you familiar with institutional details of today's financial markets and some of the major players. I also encourage you to check out the following blogs:

- Fama-French blog at Dimensional Fund advisors:  
<http://www.dimensionalfund.com/famafrench>. Fama and French are two of the foremost empirical finance researchers of the last 30 years, so they have a lot of interesting perspectives on what is going on in markets.
- John Cochrane's blog: <http://johnhcochrane.blogspot.com>. Cochrane is probably the best example of the modern intersection of asset pricing and macroeconomics. His comments on what you read in the news paper are finance insights mixed with a good dose of the big picture.
- Robert Shiller at Yale has a blog at:  
<http://www.shillerfeeds.com>. He is an important counterweight to Fama-French and Cochrane, who are all Chicago economists. Shiller is a Behavioral Economist who has been emphasizing the human side of financial markets and the importance of the democratization of finance.

I also recommend to check out broadcasts of Jim Cramer's "Mad Money" on CNBC (<http://www.cnbc.com/id/33482520>). This has pure entertainment value but will introduce you to some practical investing issues (also: Cramer actually has a lot of clout of Wall Street through his show...) If you find yourself still hungry for finding out more about financial markets, here are three recommendations to further explore other complementary insights about finance and capital markets:

- Robert Shiller has a fantastic online class, accessible over Yale Open Course:  
<http://oyc.yale.edu/economics/econ-252-11>. This is a nice institutional overview about all types of financial institutions that enable risk management with a big emphasis on the human side of investing. Note especially his phenomenal guest speaker list from all corners of capital markets: institutional investors, private equity, regulators etc.
- For those more interested in Quant finance topics such as derivatives and securitization, Yale has another great open course: John Geanakoplos' class on finance theory <http://oyc.yale.edu/economics/econ-251>
- For those interested in some more advanced topics, I will offer a follow-up class (Econ 426) in Spring 2016. Econ 426 will focus on understanding private equity (venture capital and leveraged buyouts) and will develop tools for evaluating companies that are typically not publicly traded.

## LECTURE OUTLINE

I will post a “web version” of the lecture slides that constitute the class material. Note that these web accessible slides will be an **incomplete** version of the actual lecture slides. These slides will be made available after the lectures so you don't need to completely copy all figures and tables. Class attendance and participation are strongly encouraged, especially if you plan to ask me to write a letter for graduate school applications.

**According to department policy, all slides and problem sets are copyrighted material. Any redistribution of this material (e.g. posting it on coursehero) will be in violation of copyrights by the author.**

### Basics

I. Introduction: Time, Risk and Information

II. Present Value

III. Risk and Arbitrage

### Part I: Fixed Income

IV. Bond Returns and Pricing with No-Arbitrage  
( *BKM Chapter 14* )

V. Duration  
( *BKM Chapter 16* )

VI. Expectations and the Informational Content of Yield Curves  
( *BKM Chapter 15* )

**Tuesday, February 2nd, 2016: In-Class MIDTERM**

## **Part II: Equities and Portfolio Theory**

### **VII. Fundamental Company Analysis:**

**Simple Stock Valuation Approaches and Comparables**

*(BKM, Chapter 18)*

### **VIII. Risk Premia I:**

**Statistical Tools and the Principle of Diversification**

*(BKM, Chapter 7)*

### **IX. Risk Premia II:**

**Mean-Variance Analysis and CAPM**

*(BKM, Chapter 9)*

### **X. Expectations and the Informational Content of Security Prices**

*(BKM, Chapter 11, 12)*

**Midterm II: Thursday, March 10th, 2016, In-Class**

**MIDTERM**

## Academic Conduct

The economics profession depends on the maintenance of high professional and ethical standards among its members. Similarly the Department of Economics expects its students to maintain high standards of academic conduct. The University of Washington has a Student Conduct Code (WAC 478-120) available at

<http://apps.leg.wa.gov/WAC/default.aspx?cite=478-120>

The Department of Economics has a policy on academic misconduct. Academic misconduct includes plagiarism, cheating on examinations or other individual projects or assignments, and the theft or alteration of other persons' work for the purpose of gaining academic credit or of enhancing grades.

### Plagiarism

Plagiarism is one of the most widespread and elusive kinds of cheating and is defined in the Academic Responsibility statement mentioned above as:

1. "Using another writer's words without proper citation."
2. "Using another writer's ideas without proper citation."
3. "Citing your source but reproducing the exact words of a printed source without quotation marks."
4. "Borrowing the structure of another author's phrases or sentences without crediting the author from whom it came."
5. "Borrowing all or part of another student's paper or using someone else's outline to write your own paper."
6. "Using a paper writing "service" or having a friend write the paper for you."

### Examination rules

#### Exam Absence Policy

1. If you are unable to make it to an exam period due to illness or another serious unexpected happening, do the following:
  - (a) Contact your instructor the same day to notify him/her that you are not able to take the exam and why.
  - (b) If you missed the exam for health reasons, you need to show as soon as possible to your instructor a valid medical note issued by a medical professional, on the original exam date. The instructor may check with the medical authorities writing the note to ascertain the veracity of your visit. There is no flexibility on this matter. The arrangement for making up the missing credits may vary from instructor to instructor (make-up exam etc.).

- (c) If there was some other reason for missing the exam (car accident, meteor shower etc.) come and see your instructor to explain these reasons – you will need to show proper valid documentation. Not waking up or missing your bus/plane is not an acceptable excuse.
2. If you know that you are going to be away due to an university related activity (e.g. sport, debate), let your instructor know well in advance (preferably in the first week of the quarter) so that arrangements for make up can be made upon presentation of proper valid documentation.

### Exam Taking Rules

1. Material allowed during a closed book exam.
- (a) All books, papers, notebooks etc. must be placed inside your bag (backpack etc.) and the bag must be securely and fully closed. If you do not have a bag, you must place all your material out of your reach (classroom window sill etc.)
  - (b) Only keep writing tools and basic calculators (i.e. simple 4-functions calculators). Graphing calculators or calculators with memories will not be allowed. Sharing of calculators is not permitted.
  - (c) Cellular phones must be turned off before entering the class and placed in your closed bag (not in your pocket). You are not allowed to use a cellular phone during an exam. Doing so will result in the termination of your exam time (your exam being taken from you at this point). Likewise i-pads or i-pods (or similar devices) are not allowed. The use of personal computers is not allowed during an exam.
  - (d) Baseball caps with visors and any kinds of headgear hiding your eyes are not permitted.
2. Attendance and special accommodation
- (a) You are expected not to leave the room during the exam except in case of emergency. This includes restroom use; be sure to use the restroom before the beginning of the exam.
  - (b) If you arrive late to an exam, you cannot expect to get extra time after the official end of the exam to make up for the missing time at the beginning.
  - (c) If you have a documented disability, please show your instructor your documentation from the Office of Disability Resources for Students on the first day of class, so that your instructor can make all the necessary arrangements if you wish to take your exam in a separate place.

### Academic honesty

1. Exams are individual work and cheating will not be tolerated. Students must not glance at their neighbors' exams. Students must not change their answers after they have turned their exam in.

2. Check the student handbook for further information about cheating, plagiarism etc. Cheating of any kind may result in expulsion from the university. The Department of Economics will follow university policy in case of academic dishonesty. These rules complement/supplement the university rules, which are spelled out at <http://www.washington.edu/uaa/advising/help/academichonesty.php>

Academic integrity is the cornerstone of the Department's rules for student conduct and evaluation of student learning. Students accused of academic misconduct will be referred directly to the Office of Community Standards and Student Conduct for disciplinary action pursuant to the Student Conduct Code and, if found guilty, will be subject to sanctions. Sanctions range from a disciplinary warning, to academic probation, to immediate dismissal for the Department and the University, depending on the seriousness of the misconduct. Dismissal can be, and has been, applied even for first offenses. Moreover, a grade of zero can be assigned by the instructor for the course.