



Department of Economics and Finance

**ECON*4560
Advanced Topics in Finance
Winter 2014**



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COURSE OUTLINE

This is an advanced finance course, which will cover a selection of topics. The objective of this course is threefold: (i) build a common background for all students in asset pricing in order to facilitate discussion of finance research; (ii) provide an in-depth look at a few selected core topics in finance, and (iii) expose students to the analysis of seminal and top recent research papers. This course is designed to provide in-depth analysis of few topics rather than superficial analysis of a wide variety of topics.

The delivery of this course will involve formal lecturing as well as class discussions and student presentations. About half of the course will be dedicated to formal lecturing and the other half to structured discussions focusing on a set of finance research papers. Students are strongly encouraged to participate and indeed lead the discussions to the extent that they can. In this course, the more interaction, the better the learning experience.

There is no required textbook for this course. The readings will consist of the lecture notes and a set of assigned papers for each topic. All materials, including lecture notes and assigned papers, will be posted on courselink or distributed in class.

ASSESSMENT

Assessment for this course is based on five components:

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| • In-class participation: | 10% |
| • One in-class presentation discussing a research paper: | 25% |
| • Written summaries of two research papers (one page each): | 10% |
| • Empirical Projects: | 30% |
| • Final examination (take home): | 25% |

Participation

Students are expected to attend all classes and actively participate in the discussions on both the lecture material and the student presentations. Attendance will be taken in every class. A student is allowed to miss three classes during the semester without an explanation. When a student misses a fourth class, there will be a deduction of 1% from the final grade for every missed class (counting the first three classes) up to a maximum of a 10% deduction. If a student misses three classes or less, the participation mark can be no less than 7% and will be based on the student's participation. Finally, if a student attends all classes with no exception, he/she automatically gets the full 10% for participation.

Presentations

Students will be divided in separate groups. Each group will be assigned one paper for their presentation. However, all students must read all the assigned presentation papers (including the papers assigned to your classmates) so that we can have a discussion after each presentation.

The in-class presentation involves writing about 10 PowerPoint slides. The slides will be submitted to the instructor in class in a USB stick right before the presentation. The students who belong to the group will receive a grade based on the quality of the group's presentation and the quality of the slides. For the slides, what counts is the content not how fancy their design is. A simple PowerPoint design will be just fine. You should aim to talk for a maximum of 20 minutes (but no less than 10 minutes). A class discussion will follow each presentation.

Your presentation should focus on the following:

- Discuss the objectives of the paper
- Set the paper in context, by discussing whether this is an important subject
- Describe briefly the data and methods
- Present in detail the results and implications.

You can also spend a few minutes doing your best to analyze the paper:

- Indicate the strengths and weaknesses of the paper
- Say what you may have done differently and why
- Speculate on what research needs to be done next.

However, if you do not have strong opinions about the above three bullet points, you can ignore them.

The best presentations are the ones that use simple language to describe the main ideas of the paper in a clear and precise manner that makes sense to everyone, even those who have not read the paper. Think of your presentation as teaching the paper to your classmates. So what you need to emphasize is whether the paper makes sense, whether the question is important, whether the results support the question and, in the end, whether we should care.

Written summaries of papers

Each student will be assigned two research papers among the ones that will be presented in class for which they will write a summary. This will be done individually not in groups. Each summary will have maximum length of one page, and will contain: (i) one paragraph describing what the paper does (you can use bullet points if you wish); (ii) one paragraph listing the main findings of the paper (you can also use bullet points here if you wish); and (iii) one question addressed to the group presenting this paper. The question can be about: so, is the topic of the paper interesting? Is the methodology appropriate? Do the authors find strong support for their hypothesis? Why should we care about this result?

Advice on how to read papers

When reading a paper, start with the abstract, introduction and conclusion. Try to obtain a general understanding before diving into the technicalities. There are many points in papers which are difficult to understand either because of the techniques (math or econometrics) or because of the sophistication in the economic ideas. Do not get hung-up on small details, but try to see the “big picture”. Do not worry if you do not understand all the details of the methodology. If you are presenting a paper, you should try to understand as much as you can. If you cannot understand something, say so in your presentation. It could very well be that the paper is not clearly written or

simply that the quantitative sophistication of the paper is beyond the level of this course.

Empirical Projects

Students are required to work individually (not in groups) on two empirical projects. Guidelines for these projects will be discussed in detail later. For now what we can say is that the projects will involve some of the following:

- Collecting data for different types of assets (e.g., stocks, bonds, commodities or currencies) over a long time period.
- Using Excel to compute and report descriptive statistics on the data: means, variances, standard deviations, minima, maxima, skewness, kurtosis, serial correlations, cross-correlations, etc.
- Use these statistics to assess the risk-return tradeoff on the assets
- Design a simple trading strategy for allocating wealth across these assets.
- Report and discuss the performance of the strategy.

In order to do these projects students will receive some training on how to download data from the Reuters-Datastream terminals located in the library. We will also do some examples in class.

Final Exam

The final exam will cover all the material taught in this course. Students will be asked to write one essay on one of the topics discussed in class. It will be a take home exam which will be given to you in advance and will be due on the last class on **Thursday April 3, 2014**. More details on the format of the exam will be provided later.

TEXTBOOKS

There is no set textbook for this course. Students are expected to study the lecture handouts and the assigned papers. For further information on a number of topics, students can refer to numerous textbooks such as the following:

"Fundamentals of Corporate Finance" by Brealey, Myers, Marcus, Maynes and Mitra. 5th Canadian Edition. McGraw-Hill Ryerson 2012 (basic/introductory level)

"Financial Theory and Corporate Policy" by Copeland, Weston and Shastri, 4th edition, 2004.
(intermediate level)

"Asset Pricing" Revised Edition, by John H. Cochrane, Princeton University Press, 2005.
(advanced graduate level)

All other materials, including lecture notes, will be posted on courselink or distributed in class.

LIST OF TOPICS

REVIEW AND INTRODUCTION

- Measuring risk and return: mean, variance, standard deviation, covariance, correlation, skewness, kurtosis
- The normal distribution and the lognormal distribution for modeling asset returns
- The empirical properties of asset returns: stocks, bonds and exchange rates
- Investor preferences: a comprehensive review of risk aversion
- A review of valuing stocks and bonds

DYNAMIC ASSET ALLOCATION

- The foundations of portfolio choice and diversification
- Mean variance analysis: assumptions, strengths and weaknesses
 - Maximum Utility Strategy
 - Maximum Expected Return Strategy
 - Minimum Volatility Strategy
 - Global Minimum Variance Strategy
 - The 1/N benchmark strategy
- Performance Measures, Transaction Costs and long horizon investing

THE CROSS SECTION OF EXPECTED STOCK RETURNS

- Review of the Capital Asset Pricing Model (CAPM) and Arbitrage Pricing Theory (APT)
- The Consumption-CAPM
- The Fama and McBeth (1973) methodology
- The Fama-French (1993) factors

- Alternative factors for explaining the cross section of stock returns: momentum factor and market volatility

RETURN PREDICTABILITY

- Out-of-sample prediction of the equity premium: types of conditioning information, statistical and economic tools for assessing predictability, alternative data frequencies and horizons, etc.

VOLATILITY TIMING

- Out-of-sample prediction of the volatility of asset returns: modeling volatility and correlations, statistical and economic tools for assessing predictability in volatility, etc.

FX AND THE CARRY TRADE

- The Foreign Exchange market
- The forward bias in exchange rates and the carry trade strategy

LIST OF PAPERS

For discussion in class and presentations

THE CROSS SECTION OF EXPECTED STOCK RETURNS

Fama, E., and J. McBeth (1973). "Risk, Return and Equilibrium: Empirical Tests," *Journal of Political Economy* 81, 607-636.

Fama, E., and K. French (1992). "The Cross-Section of Expected Stock Returns," *Journal of Finance* 47, 427-465.

Fama, E., and K. French (1993). "Common Risk Factors in the Returns on Stocks and Bonds," *Journal of Financial Economics* 33, 3-56.

Jegadeesh, N., and S. Titman (1993). "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency," *Journal of Finance* 48, 65-91.

Ang, A., R.J. Hodrick, Y. Xing, and X. Zhang (2006). "The Cross-Section of Volatility and Expected Returns," *Journal of Finance* 61, 259-299.

Frazzini, A., D. Kabiller, and L.H. Pedersen (2013). "Buffett's Alpha," Unpublished working paper.

RETURN PREDICTABILITY

Welch, I., and A. Goyal (2008). "A Comprehensive Look at the Empirical Performance of Equity Premium Prediction," *Review of Financial Studies* 21, 1455-1508.

VOLATILITY TIMING

Fleming, J., C. Kirby, and B. Ostdiek (2001). "The Economic Value of Volatility Timing," *Journal of Finance* 56, 329-352.

YOUR RESPONSIBILITIES

It is your responsibility as a student to be aware of and to abide by the University's policies regarding academic misconduct, email communication, maintaining copies of out-of-class assignments, what to do when you cannot meet a course requirement and the drop date for this semester. To better understand these policies, visit:

https://dev.web.uoguelph.ca/economics_d7/important-notice-about-students-responsibilities-and-university-policies

You will be asked to complete an evaluation of this course at some time during the last two weeks of the semester. **This will be done in class.** The Department of Economics and Finance policy regarding the conduct and use of these evaluations will be found at:

<https://www.uoguelph.ca/economics/course-evaluation>

As your teachers, we will do our best to deliver a course of the highest standard, and to create an enjoyable and productive learning experience. We are professionals, and we expect nothing less from you. Below are a few points to lay down the ground rules:

- **Be on time** for class. If you arrive late, take a seat in the back of the lecture theatre and try to minimize the distraction to your classmates.
- **Do not leave half-way through a lecture.** If you know in advance that you will have to leave before the end of the session, let your teacher know at the start of the session, take a seat in the back, and leave quietly when you have to.
- **Stay quiet** during classes.
- **Switch off your cell phone** before you come to class.

We hope you will enjoy the course and have a productive learning experience!

The Department of Economics and Finance *Learning Outcomes* for this course are:

Skills:

1. **Written Communication:** The empirical project will provide an opportunity for students to conduct an empirical application using real data. The results will be communicated in written format. Another type of written communication used in this course is the one-page summaries of research papers.
2. **Oral Communication/Presentation:** The presentation of a research paper will provide students with an opportunity to present to the class their summary and evaluation of a major research paper.
3. **Numerical Problem Solving:** Students will learn how to value stocks and bonds, how to measure risk and return, how to design optimal portfolios, how to prove certain asset pricing models, and how to solve other numerical problems in asset pricing.
4. **Analytical Problem Solving:** Much of the course is about interpreting the theory of asset pricing and making recommendations for individual investors.
5. **Problem solving in a Real World Context:** All finance topics taught in this course relate to how investors and companies act in the real world.
6. **Computer Skills:** The empirical project involves developing substantial skills in downloading and processing data, as well as in performing some statistical analysis using Excel.

Knowledge:

1. **Mathematical methodology:** We will be using mathematical techniques to value stocks and bonds, measure risk and return and build portfolios.
2. **Statistical and Econometric Methodology:** We will be using probability distributions and will be computing descriptive statistics to help us understand the probability of certain future outcomes occurring. Distributions are central to assessing the risk-return tradeoff.
3. **Understanding of Specific Markets:** This course is devoted to understanding financial markets and in particular the markets for stocks and bonds, although other markets may be considered as well.
4. **Historical and Global context:** We will investigate the historical performance of global financial markets.
5. **Financial Asset Pricing, Corporate Finance, and Risk Analysis:** This is just a summary of what this course is about.