

## SYLLABUS FOR Investment Management FINE 441 – FALL 2012

Professor: Ruslan Goyenko (McGill University, Finance)

This class is taught jointly with Jordan Waxman (Managing Director, Partner, HSW Advisors)

Office: BRONF 505

Office Hours: Monday, 4-5:00 pm  
Tuesday, 4-5:00 pm  
Wednesday, 4-5:00 pm

Class Times: FINE 441-001: Mon/Wed, 10:05 a.m. – 11:25 a.m. in BRONF 205  
FINE 441-002: Mon/Wed, 11:35 a.m. – 12:55 p.m. in BRONF 205  
FINE 441-003: Mon/Wed, 2:35 – 3:55 p.m. in BRONF 205

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### COURSE DESCRIPTION

This course provides a rigorous treatment of the core concepts of investments for finance majors. It broadly covers financial instruments, such as equity, fixed income, and derivative securities, as well as key concepts in international finance. It makes extensive use of Microsoft Excel to implement financial models.

These are some (not all) of the major areas we will be looking at:

- ✚ Determining the expected return and risk of assets and portfolios
- ✚ Historical risk and return performance of various asset classes
- ✚ Diversification and how it can reduce portfolio risk
- ✚ The composition of the optimal portfolio of risky assets
- ✚ Review of the major asset pricing models and their implications to investors
- ✚ Examining the performance of fund managers
- ✚ The efficiency of financial markets with consideration to fundamental and technical analysis
- ✚ The relationship between a bond's coupon rate, the required yield and price
- ✚ How to calculate the yield-to-maturity for a bond and its meaning to the investing community
- ✚ Determining the factors influencing an option's market value
- ✚ The payoffs associated with various option positions

We have set three additional goals for each student to develop:

1. **Applied spreadsheet skills for financial modeling.** Spreadsheets are the primary instrument used in most real-world finance positions, such as financial analysts, credit analysts, security analysts, etc. The course has one spreadsheet-based individual assignment and one spreadsheet-based group project.
2. **Slide show presentation skills.** Electronic slide show presentations are a central communication skill in business. The course contains one in-class slide show presentation.
3. **Small group communication skills.** Developing skill and confidence in group work is crucial. This course involves one team projects to give you additional experience with group processes.

## COURSE OUTLINE

<b>Date</b>	<b>Topics</b>	<b>Reading</b>
Wed. Sep. 5	<b>UNIT A: EQUITY SECURITIES</b> <ul style="list-style-type: none"><li>• Syllabus and Introduction</li><li>•</li></ul>	Lecture Notes
Mon. Sep 10	<ul style="list-style-type: none"><li>• TD Presentation</li></ul>	
Wed. Sep 12	<ul style="list-style-type: none"><li>• Risk and return</li><li>• Risk Aversion and Utility Values</li></ul>	BKMPR Ch: 2,3,4,5
Mon. Sep 17	<ul style="list-style-type: none"><li>• Asset allocation</li><li>• Diversification</li><li>• Optimal CAL and Efficient Frontier</li><li>• Systematic vs. Idiosyncratic Risk</li><li>• Computer demo: Portfolio Optimization</li></ul>	BKMPR Ch: 6
Wed. Sep 19	<ul style="list-style-type: none"><li>• CAPM Assumptions</li><li>• Using CAPM</li></ul>	BKMPR Ch: 7
Mon. Sep 24	<ul style="list-style-type: none"><li>• Security Alphas</li><li>• Factor models</li></ul>	BKMPR Ch: 8
Wed. Sep 26	<ul style="list-style-type: none"><li>• Arbitrage Pricing Theory and Multifactor Models of Risk and Return, Empirical evidence</li></ul>	BKMPR Ch: 8, 11
Mon. Oct 1	<ul style="list-style-type: none"><li>• <i>Lecture by Jordan Waxman</i></li></ul>	<i>Lecture Notes</i>
Wed. Oct. 3	<ul style="list-style-type: none"><li>• Measures of Portfolio Performance, Market Efficiency</li></ul>	BKMPR Ch: 9,10, 20
Mon Oct 8	<ul style="list-style-type: none"><li>• Thanksgiving – no Class</li></ul>	
Wed. Oct 10	<ul style="list-style-type: none"><li>• Equity Valuation Models</li></ul>	BKMPR Ch: 15
Mon. Oct 15	<ul style="list-style-type: none"><li>• <i>Lecture by Jordan Waxman</i></li></ul>	<i>Lecture Notes</i>
Wed. Oct 17	<b>UNIT B: FIXED-INCOME SECURITIES</b> <ul style="list-style-type: none"><li>• Bond Formulas in Excel</li><li>• Yield to Maturity</li></ul>	BKMPR Ch: 12
Mon. Oct 22	<ul style="list-style-type: none"><li>• Corporate Bond Yields and Ratings</li><li>• Junk Bonds</li><li>• Yield Curve</li></ul>	BKMPR Ch: 13

- Computer demo: Term structure dynamics
- *Individual Assignment is due*

Wed. Oct 24      • Interest Rate Risk by Coupon Rate & Maturity      BKMPR Ch: 14  
 • Duration and Interest Rate Risk

**Friday October 26 MIDTERM 6pm-8pm**

Mon. Oct 29      • Duration and Convexity, Passive Bond Management      BKMPR Ch: 14

***UNIT C: DERIVATIVE SECURITIES***

Wed. Oct 31      • Introduction to Derivatives

Mon. Nov 5      • Payoff and Profit Diagrams      BKMPR Ch: 17

Wed. Nov 7      • No Arbitrage Framework      BKMPR Ch:  
 • Binomial Option Pricing Model      17,18  
 • Put-Call Parity

Mon. Nov 12      • Black-Scholes Formula      BKMPR Ch: 18  
 • Numerical Examples

Wed. Nov 14      • Option Valuation      BKMPR Ch: 18

Mon. Nov 19      • Futures Basics      BKMPR Ch: 19  
 • Futures vs. Forwards

Wed. Nov 21      • Marking to Market and the Margin Account      Lecture Notes  
 Mon. Nov 26      • Interest Rate Swaps      BKMPR Ch: 19

Wed. Nov 28      • Foreign Exchange Swaps      Lecture Notes  
 • Index Arbitrage      BKMPR Ch: 19

Mon. Dec 3      • Group Presentations      Lecture Notes

Wed. Dec 4      • Group Presentations

## GRADING

Individual Assignments (4x2.5%)	10%
Group Project: the paper 10% Presentation 5%	15%
Class participation	10%
MIDTERM	25%
FINAL (cumulative)	40%

### Individual assignments:

There will be four individual assignments similar to the problems in the end of book chapters. You will have at least two weeks to complete your assignments so I WILL NOT ACCEPT LATE ASSIGNMENTS under any circumstances.

### Class participation:

I expect you to attend the lectures and participate actively. Half of the participation grade (5%) will come from a peer evaluation from your group-project members at the end of the semester.

### Group Project:

The instructions for the group project will be distributed after the add/drop deadline. The idea of the project is to create mutual fund portfolios and analyze their performance and performance of individual stocks throughout the semester. In the end of the semester each group will present the results and submit a written report.

## GRADE POLICY AND REPORTING

Grading is done on a relative basis. The class curve is based on total points for the course. In the middle of the term, the cumulative point distribution for all FINE441 sections will be reported and a rough indication of how the points translate into grades will be given.

When a particular project or exam is graded, the grade will be posted for all sections to the GRADE REPORTING SYSTEM and an e-mail will be sent out announcing that they are available. You can access your individual grades from any web browser on MyCourses.

## FINE 441 POLICIES

1. Bring a calculator or laptop to every class session. It will be useful when we do *live* group exercises in class.
2. Make-up quizzes will only be given for family or medical emergencies. Prior notice and hard evidence is required.
3. The projects are due on the due date. No project will be accepted later.
4. Class attendance is strongly encouraged.
5. ***We will adhere to the course outline schedule where possible; however, it may be necessary to make occasional adjustments.***
6. Students are expected to be ready for class at the scheduled time. We will start class exactly on time. This policy avoids the problem of having people wander in late and not being able to pick up what is being discussed.
7. ***Quizzes are closed-book. Calculators are allowed. All required formulas will be given.***

### Class material:

The course will be based on class notes. Power point slides will be posted to WebCT before each class.

## TEXTBOOK

Investments, 7<sup>th</sup> Canadian Edition, by Bodie, Kane, Marcus, Perrakis and Ryan (henceforth “BKMPR”)

## OTHER RESOURCES

You may want to use other resources to give you additional insights in the subjects and issues we cover.

*The Economist* is an excellent source of news on economic and financial topics with a strong international focus. Below are some very good web sites covering finance, investments and financial markets.

<http://finance.yahoo.com> Good source for historical financial data.

<http://chart.yahoo.com/d> Good sources for historical financial data.

<http://www.ft.com> Good for news and weekly surveys on investments, banking, finance, etc.

<http://www.ftmarketwatch.com> Web site from the Financial Times; more focused on finance and investments.

[The Wall Street Journal](#) Keep abreast of daily events.

<http://www.afajof.org> Journal of Finance home page.

<http://nber.org> National Bureau of Economic Research. Links to useful economics web sites plus historical stats.

<http://www.econ-datalinks.org> Contains links to many useful data sources for economics and business

<http://www.finweb.com> Comprehensive set of links to many useful sites in finance

<http://www.jpmorgan.com> This is the J. P. Morgan site.

<http://www.ml.com> This is Merrill Lynch's site

<http://www.barra.com> This web site contains historical monthly equity returns for a number of market indices

<http://www.ibbotson.com> The Ibbotson web page contains interesting research and excellent links to financial data

<http://www.nyse.com> Web site of the New York Stock Exchange

<http://www.cbote.com> Web site of the Chicago Board of Trade

<http://www.cme.com> Web site of the Chicago Mercantile Exchange

<http://www.londonstockexchange.com> Site of the London Stock Exchange, one of the leading international markets