MBA 706, Investments, Syllabus, Spring 2016

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Outline

1. Class meetings
2. Course Description
3. Reading materials
4. Exams and Grading
5. Make-up exams
6. Honor Code
7. Class schedule

Meeting Schedule

<table>
<thead>
<tr>
<th>CRN</th>
<th>Subj Crse Sec Title</th>
<th>Days &amp; Time</th>
<th>Date (MM/DD)</th>
<th>Location</th>
<th>Office Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>18007 MBA 706 001 Investments</td>
<td>M 6:30pm - 10:05pm</td>
<td>02/01-04/09</td>
<td>Mason Hall D001</td>
<td>M 2-3pm</td>
<td></td>
</tr>
<tr>
<td>18006 MBA 706 002 Investments</td>
<td>W 6:30pm - 10:05pm</td>
<td>02/01-04/09</td>
<td>Arlington: Founders Hall 120</td>
<td>M 2-3pm</td>
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</table>

Course Description and Objectives

This course is about portfolio management and asset pricing. The material focuses on institutional investing, although the course is also relevant for individuals. The class aims to provide an understanding of strategies and risk management tools necessary for the management of fixed income and equity portfolios. In particular, the class material covers asset allocation, risk and return trade-offs, diversification, asset pricing, portfolio performance evaluation, and the theory of market efficiency. Upon successful completion of this course students will be able to (1) evaluate and explain the risk and return trade-offs in finance and (2) conduct research necessary to construct and manage equity/fixed income portfolios and evaluate their performance.

Prerequisites

Completion of MBA core or permission of instructor. Prerequisite enforced by registration system. Students are expected to be familiar with basic economics and statistics.

Course Materials

The course will use McGraw-Hill Connect extensively. Registration is required to access Connect. You can register for the basic Connect which will give you access to the problem sets or you can register for Connect Plus which will give you access to the problem sets and the eBook, the online copy of the textbook.

- Lecture notes, additional practice problems, and other materials will be posted on Blackboard and my website.
- Here is the link to a short document which explains how you set up a Bloomberg account and get access to the Bloomberg room: [http://somfin.gmu.edu/courses/mba706/starting_with_bloomberg.html](http://somfin.gmu.edu/courses/mba706/starting_with_bloomberg.html)

### Exams and Grading

The course grade will be based on a score of 1000 points. The grade distribution is as follows: 930-1000 (A), 900-929 (A-), 860-899 (B+), 800-859 (B), 700-799, C. The final grade will be based on a set of 9 practice problem sets (total of 300 pts), two team projects (total 300 pts) which require teams to set up, manage, and evaluate the performance of diversified portfolio, a final exam (300 pts), a blog by each team which is regularly updated and follows the progress of the team's portfolio (100 pts), and a wiki put together by each team which explains definitions and solutions of the assigned problem sets. The problems sets will have a carefully selected number of questions and will be administered online through McGraw-Hill Connect. You will be able to access each problem set within a specified period of time and will be able to work on it at your convenience. For the two projects, you will ask you to join a team and create a portfolio in Bloomberg. You will manage the portfolio, performing asset allocation, stock selection, and portfolio performance evaluation tasks. The first project will ask that you do all the quantitative and qualitative analysis using excel. The second project will ask that you manage your portfolio in Bloomberg, using the PORT analysis tool. You will create PowerPoint slides which you will present in class. In addition, we will follow the portfolios daily. You and your team will be asked to blog about your portfolio every day and describe its performance, volatility, most extreme returns, and what news you believe influenced your portfolio returns during the day. I will try to help if you do not have regular access to a Bloomberg terminal.

### Grade Allocation

<table>
<thead>
<tr>
<th>Type</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Sets</td>
<td>30%</td>
</tr>
<tr>
<td>Blogs</td>
<td>10%</td>
</tr>
<tr>
<td>Wikis</td>
<td>10%</td>
</tr>
<tr>
<td>Portfolio Project 1</td>
<td>15%</td>
</tr>
<tr>
<td>Portfolio Project 2</td>
<td>15%</td>
</tr>
<tr>
<td>Final exam</td>
<td>20%</td>
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</table>

### Make-up exam policy

There will be no make-up exams.

### Honor Code

By registering for this class, students agree to abide by the honor code, which describes the standards of conduct, academic violations, and the treatment of academic offenses. The Honor Code states that all students "pledge not to cheat, plagiarize, steal, or lie in matters related to academic work." Visit [http://academicintegrity.gmu.edu/honorcode/](http://academicintegrity.gmu.edu/honorcode/) to read more about the GMU academic integrity code. School of Business Honor Code guidelines are posted at [the end of this syllabus](http://somfin.gmu.edu/courses/mba706/).

### Class Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>CH. Learning Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feb 01/03</td>
<td><strong>Asset Classes and Financial Instruments</strong></td>
<td>2 LO2-1 Distinguish among the major assets that trade in money markets and in capital markets.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BEGIN PORTFOLIO PROJECT 1</td>
<td>LO2-2 Describe the construction of stock market indexes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BEGIN PORTFOLIO PROJECT 2</td>
<td>LO2-3 Calculate the profit or loss on investments in options and futures contracts.</td>
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<tr>
<td></td>
<td></td>
<td>Webinar Slides</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Guide using BB PORT function</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Guide using BB PRTU function</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Feb 08/10</td>
<td><strong>How Securities are Traded</strong></td>
<td>3 LO3-1 Describe how firms issue securities to the public.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS1 due (Blackboard)</td>
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2 of 4 2/12/2016 11:47 AM
LO3-2 Identify various types of orders investors can submit to their brokers.
LO3-3 Describe trading practices in dealer markets, specialist-directed stock exchanges, and electronic communication networks.
LO3-4 Compare the mechanics and investment implications of buying on margin and short-selling.

5 LO5-1 Compute various measures of return on multi-year investments.
LO5-2 Use data on the past performance of stocks and bonds or scenario analysis to characterize the risk and return features of these investments.
LO5-3 Determine the expected return and risk of portfolios that are constructed by combining risky assets with risk-free investments in Treasury bills.
LO5-4 Use the Sharpe ratio to evaluate the investment performance of a portfolio and provide a guide for capital allocation.

6 LO6-1 Show how covariance and correlation affect the power of diversification to reduce portfolio risk.
LO6-2 Calculate mean, variance, and covariance using either historical data or scenario analysis.
LO6-3 Use and construct the Capital Allocation Line.

7 LO7-1 Construct efficient portfolios and use the Sharpe ratio to evaluate portfolio efficiency.
LO7-2 Calculate the composition of the optimal risky portfolio.

8 LO8-1 Learn how to simplify portfolio construction using index models.
LO8-2 Estimate index models using least squares regression and construct and use the security characteristic line.
LO8-3 Use index models to analyze the risk and return characteristics of securities and portfolios.

9 LO9-1 Use the implications of capital market theory to estimate security risk premiums.
LO9-2 Construct and use the security market line.

10 L10-1 Specify and use a multifactor security market line.
L10-2 Take advantage of an arbitrage opportunity with a portfolio that includes mispriced securities.
L10-3 Use arbitrage pricing theory with more than one factor to identify mispriced securities.
10 Mar 28/30

**Portfolio Performance Evaluation**

PS8 due (Blackboard)

24 **LO24-1** Compute risk-adjusted rates of return, and use them to evaluate investment performance.

**LO24-2** Determine which risk-adjusted performance measure is appropriate in a variety of investment contexts.

**LO24-3** Apply style analysis to assess portfolio strategy.

**LO24-4** Decompose portfolio returns into components attributable to asset allocation choices versus security selection choices.

**LO24-5** Assess the presence and value of market-timing ability.

11 Apr 04/06

Portfolio Performance Evaluation (cont'd)

PS9 due (Blackboard) Portfolio Project 1 Presentation

Portfolio Project 2 Presentation Review

**Week of Apr 04-10; Time: online exam, can be started**

**FINAL EXAM**

any time between 10:00pm on Apr 06 and 11:59pm on Apr 09. Has to be finished within 3 hours after start

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**School of Business Recommendations for Honor Code Violations**

*Adopted by the faculty May 2012*

**Graduate Students**

<table>
<thead>
<tr>
<th>Type of Violation</th>
<th>First Offense</th>
<th>Second Offense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plagiarism—Failure to cite/attribute sources</td>
<td>An F in the class; multiple visits to the Writing Center required; and Academic Integrity Seminar Attendance</td>
<td>An F in the class; multiple visits to the Writing Center required; Academic Integrity Seminar Attendance; dismissal from the program; and possible suspension or expulsion</td>
</tr>
<tr>
<td>Plagiarism—representing someone else's work as the student's own</td>
<td>An F in the class; multiple visits to the Writing Center required; and Academic Integrity Seminar Attendance</td>
<td>An F in the class; multiple visits to the Writing Center required; Academic Integrity Seminar Attendance (at times of hearing and reenrollment if relevant); dismissal from the program; and possible suspension or expulsion</td>
</tr>
<tr>
<td>Cheating on an assignment, homework, class participation, or minor project</td>
<td>An F in the class; and Academic Integrity Seminar Attendance</td>
<td>Expulsion</td>
</tr>
<tr>
<td>Cheating on a major project, test, or exam</td>
<td>An F in the class; Academic Integrity Seminar Attendance; and at least one semester suspension</td>
<td>Expulsion</td>
</tr>
<tr>
<td>Egregious Violation [e.g., stealing an exam; submitting coursework from another class as original work; lying to an employer about academic performance]</td>
<td>Dismissal from the program; at least one year suspension; and attendance at Academic Integrity Seminar at the time of hearing and just prior to reenrollment</td>
<td>Expulsion</td>
</tr>
</tbody>
</table>

* This syllabus is subject to change to best fit the needs of the class.