## UNIVERSITY OF PENNSYLVANIA The Wharton School

Investment Management Professor Stambaugh Course Syllabus Fall 2010

### **Course Description**

The course undertakes a rigorous study of concepts and evidence relevant to investment management. Topics include asset allocation, diversification, long-short strategies, factor models, long-horizon investing, portfolio optimization, hedge funds, mutual funds, behavioral finance, performance evaluation, trading, and simulation. The course does not deal with individual security valuation, i.e., "equity research" or "stock picking."

The prerequisites are Fin 601 and Stat 621 (MBA students) or Fin 100 and Stat 101 (undergraduates). Given that investment management requires one to analyze and deal effectively with uncertainty, a good grounding in statistics is essential, and familiarity with statistics should extend through multiple regression, covariance, and correlation.

### Purchases

- 1. *Investments*, by Zvi Bodie, Alex Kane, and Alan J. Marcus (8th ed.), McGraw-Hill. (*Student Solutions Manual* recommended.)
- 2. Cases available from Wharton Reprographics, via <u>www.Study.Net</u>.

#### Grading

Course grades will be based on two exams, four project write-ups, and class participation:

	<u>Percent</u>
Exam 1 ( <b>Oct. 20</b> , in class)	30
Exam 2 ( <b>Dec. 1</b> , in class) 30	
Project write-ups 20	
Class participation 20	
Total	100

### Team sign up

At the beginning of the course, students will form teams of three or four members for purposes of submitting project write-ups and preparing for class discussions. Team sign up is via the course eRoom on Wharton's web*Café*, and all members of a team must be in the same course section.

### Projects

Team members will work jointly on each of the four projects and submit one write-up per team. Writeups should be submitted by **9:00 AM on the due date**, using web*Café*, in order to avoid lateness penalties. Project assignments will be posted on web*Café* about two weeks prior to the due dates. Project due dates are September 22, October 13, November 17, and December 8.

### **Case discussions**

A significant portion of the class participation grade is based on case discussions. It is expected that team members will work jointly in analyzing cases and preparing for class discussions, but every student in the class should be prepared to discuss each case. I will cold-call occasionally but expect students to volunteer comments much of the time. About a week before each case discussion, I will post on web*Café* a few pertinent questions about the case. These questions are not intended to be a comprehensive summary of the issues that could arise during the case discussion, but I hope they will be useful when thinking about the case and in stimulating discussion. Written answers are not submitted.

## Exams

The exams, given during regular class-meeting times, are closed-book but you may bring one  $8\frac{1}{2} \times 11$  inch "cheat sheet" (two-sided) to each exam. Exam answers will be posted on webCafé a day or two following the exam.

## **Readings and homework problems**

I will use web*Café* to post assigned readings from the text ("BKM") and homework problems for you to work (but not submit). In addition, I will often post copies/links of articles and other material for students wishing more depth or background on topics covered in class.

## Help and questions

I welcome students to see me outside of class to discuss any aspect of the course. My scheduled office hours, when students may come without appointments, are Wednesday from 4:45 to 6:00, but I am available by appointment at other times. My office is at 3251 SHDH, my e-mail is stambaugh@wharton, and my phone is 8-5734.

The TA's for the course are Edmund Lee and Leonid Spesivtsev, Wharton finance Ph.D. students, and Diego Arroyo, a Wharton undergraduate student. Edmund's email is pklee@wharton, and his office hours are Thursday, 4:30-5:30, in SHDH 2305 (desk D); Leonid's email is spesiv@wharton, and his office hours are Tuesday, 4:30-5:30, in SHDH 2305 (desk D).

Questions about course material or course management should be submitted using the Discussion feature on web*Café*. That way all students in the course can view responses that may overlap with questions they have as well.

*Note: Non-Wharton students who are enrolled in the course but do not yet have a Wharton computing account (required for eRoom access) can apply online at <u>http://accounts.wharton.upenn.edu</u>.* 

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# **CLASS SCHEDULE**

	Topics	Cases & Projects
8-Sep	Stock-cash positions, using swaps/futures	
13-Sep	Beta, hedging, market-neutral	
15-Sep	Long-short, margin & leverage, portable alpha	The Vanderbilt University Endowment (2006)
20-Sep	Return factors	Dimensional Fund Advisors, 2002
22-Sep	Portfolio volatility; predicting volatility	Diversification write-up due
27-Sep	Behavioral finance	Behavioral Finance at JP Morgan
29-Sep	Strategies and implementation	numeric investors l.p.
4-Oct	Portfolio opportunity sets	
6-Oct	Portfolio optimization	The Harvard Management Company and Inflation- Protected Bonds
11-Oct	no class - fall break	
13-Oct	Refining optimization: Black- Litterman model	Optimization write-up due
18-Oct	Commodities; first-half synthesis	
20-Oct	Exam 1 (in class)	
25-Oct	Hedge funds	
27-Oct	Equity premium	Deutsche Bank: Discussing the Equity Risk Premium
1-Nov*	Guest speaker: Jinghua Yan – S.A.C. Capital Advisors, LP	
3-Nov	Value investing	Grantham, Mayo, Van Otterloo & Co., 2001
8-Nov*	Guest speaker: Gregor Andrade – AQR Capital Management	
10-Nov	Long-horizon investing	The Vanguard Group, Inc. in 2006 and Target Retirement Funds
15-Nov	Long-horizon investing	The Risk of Stocks in the Long Run: The Barnstable College Endowment
17-Nov	Performance evaluation and attribution	Stock-screening write-up due
22-Nov	Pension-fund asset allocation	Pension Policy at The Boots Company PLC
24-Nov	No class – day before Thanksgiving	
29-Nov	Trading, liquidity	At the T. Rowe Price Trading Desk (A)
1-Dec	Exam 2 (in class)	
6-Dec	Simulation approaches	Investment Policy at the Hewlett Foundation
8-Dec	Active vs. passive management; liquidity risk & contagion	Simulation write-up due

\*Note: this class will meet at 4:30pm (location TBA)