Investment Management   Course Syllabus
Professor Stambaugh   Fall 2017

THIS PUBLIC VERSION OF THE SYLLABUS INCLUDES A COURSE OUTLINE ONLY. STUDENTS IN THE COURSE RECEIVE A SYLLABUS WITH DETAILS OF CLASS MEETINGS, ASSIGNMENTS, PROJECTS, OUTSIDE SPEAKERS, AND TEACHING ASSISTANTS.

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 deals very little with individual security valuation and discretionary investing (i.e., "equity research" or "stock picking").

The prerequisites for MBA students are Fin 611 or 612 and Stat 613 or 621. The prerequisites for undergraduates are Fin 100 and Stat 101–102. (Stat 102 may be taken concurrently with this course). 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 (10th ed.), McGraw-Hill. (*Student Solutions Manual* recommended.) Several copies of the book and solutions manual will be on reserve at Lippincott Library. [The recently available 11th edition is also fine. Pages for reading assignments are provided for both editions.]

2. *Efficiently Inefficient*, by Lasse Heje Pedersen, Princeton University Press, with the downloadable exercises at http://docs.lhpedersen.com/EfficientlyInefficient_Exercises.pdf. (Solutions as well as the supplementary exercise materials are available on the course Canvas site.) Several copies of the book will be on reserve at Lippincott Library.

3. Cases available from Wharton Reprographics, via www.study.net.

Grading

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

	Percent
Exam 1 (**Oct. 9**, in class)	32
Exam 2 (**Dec. 6**, in class)	32
Project write-ups	20
Class participation	16
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. The members of a team may be registered for different undergrad and MBA sections of the course. Team sign up is via Canvas. (Non-Wharton students who are enrolled in the course but do not yet have a Wharton computing account, required for Canvas, can establish one by visiting http://accounts.wharton.upenn.edu.)

Projects

Team members will work jointly on each of the four projects and submit one write-up per team. Write-ups should be submitted by **9:00 AM on the due date**, using Canvas, in order to avoid lateness penalties. Project assignments will be posted on Canvas about two weeks prior to the due dates. Project due dates are **September 13, October 4, November 8, and December 11**.

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. I will post on Canvas 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 8½ × 11 inch "cheat sheet" (two-sided) to each exam. Exam answers will be posted on Canvas a day or two following the exam. Exam 2 will confine its focus to topics covered after Exam 1. Much of the course knowledge is cumulative, however, such that fully understanding issues addressed later in the course can require mastery of earlier material.

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 Wednesdays, 4:45–6:00pm, but I am available by appointment at other times. My office is at 3251 SHDH, my e-mail is stambaugh@wharton.upenn.edu, and my phone is 215-898-5734.

COURSE OUTLINE

I.   Foundations: Portfolio return, risk, asset allocation, performance evaluation
     a.   Returns and risk
     b.   Stock-cash positions; using return swaps and futures
     c.   Beta; hedging
     d.   Portfolio diversification, time-varying volatility
     e.   Alpha; long-short; margin and leverage
     f.   Portfolio opportunities and selection
     g.   Portfolio optimization and asset allocation
     h.   Refining optimization: Black-Litterman model
     i.   Performance evaluation and attribution

*** Exam 1 ***

II. Investment strategies: Exploiting potential sources of performance
     a.   Multiple return factors; size and value
     b.   Behavioral approaches
     c.   Information ratio and active allocation; long-short quantitative strategies
     d.   Implementing strategies; trading costs; combining value and momentum
     e.   Hedge funds; liquidity; arbitrage
     f.   Mutual funds – performance and scale
     g.   Valuation and value investing

III. Long-run investment issues
     a.   Equity premium
     b.   Shortfall risk and options/insurance
     c.   Mean reversion and the life-cycle
     d.   Pension funds

*** Exam 2 ***

IV. Active management's past and future