

**Fisher College of Business**  
**THE OHIO STATE UNIVERSITY**

**BUSFIN 7220: Investment Management I**  
**Autumn 2015**

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Meeting time and place (from 10/19 to 12/9):

Day: Tu-Th, 1:15–2:45pm, 355 Gerlach Hall  
Evening: Tu, 6:00–9:15PM, 210 Gerlach Hall

## Course Objective

We study the concept, evidence, and practice of equity investment management. The course is applied and quantitative in that concepts and empirical methods are subjected to real-world data.

## Prerequisites

Students are required to have completed an introductory finance course and basic probability and statistics. The field of investments is inherently quantitative. Some familiarity with matrix algebra will be useful but is not required. Basic statistics is more important because these tools will be used in most lectures throughout the course. Statistics knowledge should extend through multiple regression, covariance, and hypothesis testing.

## Teaching Assistant

Xingzhou Li, ([li.4960@osu.edu](mailto:li.4960@osu.edu)), a second-year doctoral student in Finance at the Fisher College, will be our TA. He will help grade the two quizzes.

## Course Materials

The required textbooks are Bodie, Kane, and Marcus, *Investments*, 10e, McGraw-Hill (BKM10e). BKM is the standard Investment textbook for all top 30 business schools. Earlier versions of the book are probably cheaper. You can use earlier versions for our class if you wish. The course Web site in Carmen contains: (i) lecture notes; (ii) case assignments; and (iii) some readings in pdf format. Students are responsible for obtaining essential course materials from the course Web site.

## Course Requirements and Grading

Your course grades will be based on in-class quizzes and case studies using the following weights:

In-class quiz 1	15%
In-class quiz 2	15%
Cases 1–6	60%
Participation	10%

The class participation grades are determined by the quality of your participation. I will count the following things as class participation: (i) attendance; (ii) making comments and asking questions in class which are instructive and helpful for the class as a whole, especially during case discussions; and (iii) professional etiquette. It is entirely possible to earn negative participation points.

In particular, professional etiquette is counted toward the class participation grade. The purpose of etiquette rules is to ensure that no one interferes with the learning of others. I understand that recruiting sometimes interfere with class. I plan to start promptly and I expect you to be on time. If, because of some unusual circumstance you come in late, please enter surreptitiously. If it is necessary for you to leave early, please sit next to a door. Please ask someone to switch seats with you before class starts if this is necessary. You may leave the room briefly if it is an emergency: if you doubt if it is an emergency, it's not. As a general rule, you may not use other handheld communication devices in class. I allow the use of laptops for specific limited purposes such as note-taking. At no time are you permitted to perform any email related activities or e-texting in class. Doing so can lead to negative participation points.

### In-class Quizzes

There are two in-class quizzes. You must take the quizzes to pass the course. Absence will only be excused under the most serious conditions such as a medical emergency, and it must be validated in writing by a medical doctor. The quizzes are open-book. You can use calculators as well as laptop computers during the quizzes. However, you **cannot** discuss your answers with your classmates or seek help from them. Your work on the quizzes must be independent.

The quizzes will be in-class. Each quiz lasts about **40 minutes**. Quiz 1 will be in the third week of the class, and covers the materials on modern portfolio theory. Quiz 2 will be in the fifth week of the class, and covers the remaining materials. Quiz 2 is not cumulative in that it will not test the materials on modern portfolio theory.

About regrading, although rare, grading mistakes sometimes occur. If you think there has been a significant mistake in the grading of your quizzes, I am willing to regrade. You must make your request within one week of the return of the quizzes. You must submit your entire answer for regrading along with a clear and concise written explanation of why you believe a given quiz was graded incorrectly. I will regrade the entire quiz in question. Your score may go up, stay the same, or go down as a result of a regrade. The only exception to the regrade-the-entire-quiz policy is if I have made a math error adding up the score. If you believe so, then you can submit a given quiz for a recount. In such a case I will only check to see if the points were added up incorrectly. However, you still must submit the recount request within a week.

## **Academic Integrity**

In accordance with rule 3335-5-487, all instances of alleged academic misconduct will be reported to the department chairperson and the Committee on Academic Misconduct. Academic misconduct is grounds for failing the course and may be grounds for additional sanctions. Academic misconduct includes, but is not limited to, giving and receiving information during a quiz and submitting plagiarized work for an academic requirement. To be more specific, quizzes are to be the work of the individual. “Individual” means that collaboration (such as sharing information) among students during a quiz is strictly prohibited. Concerning all other aspects of the course, including the case assignments, you can discuss freely with your classmates, both within or outside your own group.

## **Students with Disabilities**

I strive to treat students with dignity and fairness and to be particularly sensitive to the diversity that exists within the student body. Students with disabilities who request help will be given reasonable accommodation with the assistance of the University Office of Disability Services (292-3307).

## **Tentative Outline for Lectures**

The following is a tentative list of the topics that I’ll strive to cover in lectures. The required readings are listed under each topic.

### **Introduction**

Lecture notes on “Introduction”

### **Capital Allocation: One Risky Portfolio and Cash**

Lecture notes on “Asset Allocation: Combining Cash and One Risky Portfolio”

BKM, Chapter 6

### **Optimal Risky Portfolio**

Lecture notes on “Optimal Risky Portfolios”

BKM, Chapter 7

### **The Single-index Model**

Lecture notes on “The Single-index Model”

BKM, Chapter 8

### **The CAPM**

Lecture notes on “The CAPM”

BKM, Chapters 9

## Testing the CAPM: Methods and Anomalies

Lecture notes on “Testing the CAPM: Methods and Anomalies”

BKM, Chapter 12

## Multifactor Models

Lecture notes on “Multifactor Models”

BKM, Chapters 11 and 13

Hou, Xue, and Zhang, 2015, Digesting anomalies: An investment approach, *Review of Financial Studies*

## Case Studies

An extremely important component of our course is case studies. The overarching objective is to bring out real life applications of investment management.

I plan to have six cases presented and discussed during the last three weeks of the course. Each case accounts for 10% of your overall grade. The six cases are:

1. Dimensional Fund Advisors, 2002
2. Liquidating Harvard
3. The Quant Meltdown, August 2007
4. AQR's Momentum Funds (A)
5. Dimensional Fund Advisors (DFA)'s Entry into the Retirement Market
6. Innovating into Active ETFs: Factor Funds Capital Management LLC

See case assignments (posted on Carmen) for specific instructions for preparing the case presentation and discussion.

A presenting team can contain up to **four** members. If your team is interested in presenting a given case, please email me immediately. I will assign a given case to a team on the basis of “first come first serve.” Barring extreme circumstances, one team can present at most one case, to encourage broad participation. The presenting team is responsible for preparing presentation slides for the case in question, presenting the case, and leading the case discussion in class. I will work with the presenting team prior to the class to ensure that its presentation slides are of sufficiently high quality. During the in-class discussion, I will mostly mediate the discussion, correct only factual misstatement, and summarize each case only at the end. To compensate for their active participation, all members of the presenting team will receive the full score for the case presented by their team.

If you are not presenting a given case, I will grade your performance for this case based on the frequency and quality of your comments during the in-class discussion. Although you're not required to submit any case write-up, high-quality comments are, naturally, a result from careful preparation prior to the class discussion. Please note that everyone must work on all six cases.