

**University of Texas at Dallas**  
**School of Management**  
*Course Syllabus*

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**Course Information**

**FIN 6310**  
**Section 001**

**Investment Management**

**Mon: 1:00-3:45 pm SM 2.901 Fall 2015**

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Professor Harold H. Zhang  
Phone: 972-883-4777  
Office Hours: Tues. 11:00am – 12:00 noon or by appointment

Office: SM 14.512  
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**TA Information**

Kevin Green  
Office Hours: Tues. 3:00-4:00PM or by appointment

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**Pre-requisites**

Because of the risky nature of firms' investments, most financial decisions are made under uncertainty about firms' future cash flows. Therefore, statistical knowledge is required, especially knowledge on probability distributions, mean, variance, covariance, and regression analysis. It is very important to review your calculus textbook, especially on the topics of derivative and optimization.

**Course Description**

In the recent years, we have experienced very volatile financial markets worldwide. Such volatile markets provide both challenges and opportunities for investors. You may wonder how professional investors manage their investments. This course is intended to provide a general discussion on capital markets, financial instruments, and investment processes. We will emphasize the role of modern financial theory in investment and portfolio management. Therefore, we will cover a wide range of topics such as trading, valuation, diversification and asset allocation, modern asset pricing models, performance measurement, active portfolio management, financial derivatives, and fixed income securities. There will be weekly lectures on Mondays (1:00pm-3:45pm). **Class attendance is required.** In addition, I will hold office hours on Tuesdays from 11:00am to 12:00noon or by appointment. My office (SOM14.512) is located on the fourth floor of Jindal School of Management new building. You can reach me by phone at (972) 883-4777 or email at harold.zhang@utdallas.edu. If you are interested in my research, you can download my papers at <http://www.utdallas.edu/~hxz054000>. You can also download my lecture notes and problem sets from the elearning.

**Student Learning Objectives**

By the end of the course, I hope you will be able to independently analyze security markets, understand the available evidence and use it to make investment decisions. The course will also

improve the ability to read the business press with a critical approach. Specifically, there are three objectives:

1. Students will understand the portfolio choice theory and its implications for investors' asset allocation in practice.
2. Students will understand and be able to apply the capital asset pricing model to price securities.
3. Students will understand the performance measures and its applications.

### **Required Textbooks and Reading Materials**

The required textbook is the **Investments, 10th edition** by **Bodie, Kane and Marcus**. I also strongly recommend ***Random Walk Down Wall Street*** by **Burton G. Malkiel**. This is an entertaining book to read and to understand the basics of financial markets. It is also an excellent guide for your personal financial planning. One will never truly understand it without being abreast of the economy and financial markets. Therefore, it is crucial to read ***Wall Street Journal*** or financial section of major newspapers such as the New York Times, among others.

### **Assignments and Academic Calendar**

#### ***Academic Calendar***

Aug. 24: Lecture 1	Introduction and Statistics Review Financial assets and system Investment process Statistics and Math review  Bodie, Kane and Marcus, Chapters 1, 2.1-2.3, and 2.5	
Aug. 31: Lecture 2	Security Market Major types of securities Trading mechanism Margin purchase Short sales  Bodie, Kane and Marcus, Chapter 3	
Sept. 14: Lecture 3	Valuing Securities Investment companies Return and Index calculation Dividend Discount Models Price and Earning Ratio  Bodie, Kane and Marcus, Chapters 4.1- 4.6, 18.1-18.4, 2.4, and 24.1	Note: Problem Set 1 Due in Class
Sept. 21: Lecture 4	Portfolio Theory Measuring risk and return Characterizing portfolio returns Diversification Efficient frontier	

Bodie, Kane and Marcus, Chapters 5, 6.1, 7.1-7.2

Sept. 28: Lecture 5	Portfolio Theory (continue) Diversification again Classification of risks Efficient frontier with risk-free assets Shape ratio and optimality condition Estimation of input variables	Note: Problem Set 2 Due in Class
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Bodie, Kane and Marcus, Chapters 6.2-6.4, and 7.3-7.5

Oct. 5: Lecture 6	The Capital Asset Pricing Model Markets in Equilibrium The Capital Asset Pricing Model (CAPM) Estimating the CAPM Testing the CAPM
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Bodie, Kane and Marcus, Chapters 9.1-9.3, and 13.1

Oct. 12: Lecture 7	The Arbitrage Pricing Theory and Multifactor Models Index model Multifactor Models The Arbitrage Pricing Theory (APT) CAPM v.s. APT	Note: Problem Set 3 Due in Class
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Bodie, Kane and Marcus, Chapters 10, and 13.2-13.3

Oct. 19:	<b>Test One</b> (in class)
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Oct. 26: Lecture 8	Market Efficiency Random walk hypothesis Three forms of market efficiency Implications of EMH Evidence on market efficiency	Note: Spreadsheet project Due in Class
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Bodie, Kane and Marcus, Chapter 11

Nov. 2: Lecture 9	Portfolio Management Market timing The Treynor-Black Model Active portfolio management Performance Measurement
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Bodie, Kane and Marcus, Chapters 27 and 24

Nov. 9: Lecture 10	Options Introduction to options	Note: Problem Set 4 Due in Class
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Put and call parity  
Binomial option pricing  
Black-Scholes option valuation

Bodie, Kane and Marcus, Chapters 20.1-20.5 and 21.1-21.5

Nov. 16: Fixed Income Security  
Lecture 11 Bond yields and pricing  
Default premiums  
Term structure of interest rates

Bodie, Kane and Marcus, Chapters 14 and 15

Nov. 30: Managing Interest Rate Risk Note: Problem Set 5 Due in Class  
Lecture 12 Interest rate sensitivity  
Duration  
Interest rate swaps

Bodie, Kane and Marcus, Chapter 16

Dec. 9: **Test Two** (in class)

### **Grading Policy**

Your performance for the class will be based on problem sets and two in class tests according to the following scale:

<b>Problem Sets</b>	<b>30%</b>
<b>Test One</b>	<b>30%</b>
<b>Test Two</b>	<b>40%</b>

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### **Course & Instructor Policies**

**Class attendance is required.**

#### ***Homework***

We will have five problem sets and one spreadsheet exercise distributed during the semester. All homework assignments should be submitted prior to class. You need to show your work in order to get the full credit. **No late homework will be accepted.** Solutions to the problem sets will be posted on the course elearning after the due date. In the event that you are unable to attend a particular class, you may either email your homework to me or have someone else to turn it in.

Group discussion of homework problems is encouraged but each student must prepare his/her own solution to each problem set. Group solutions on spreadsheet exercises are unacceptable. Each student is required to build his/her own spreadsheet for each assigned spreadsheet exercise.

## ***Exams***

There will be two in-class tests. In order to be fair to everyone, tests must be taken on the specified dates. For those who can not take the tests on the specified dates due to business travel, you should take it before leaving. No additional credit or make up tests will be granted. The tests will consist of conceptual and problem solving questions. All tests will be ***closed book*** and ***closed notes***. No cell phone, PDA, financial or graphing calculator, and other electronic devices, except a SIMPLE (non-programmable) scientific calculator, are allowed.

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## **Student Conduct & Discipline**

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, *A to Z Guide*, which is provided to all registered students each academic year.

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391).

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

## **Academic Integrity**

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.

## **Email Use**

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official

student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.

### **Withdrawal from Class**

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

### **Student Grievance Procedures**

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*.

In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

### **Incomplete Grade Policy**

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of F.

### **Disability Services**

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is:

The University of Texas at Dallas, SU 22

PO Box 830688

Richardson, Texas 75083-0688

(972) 883-2098 (voice or TTY)

Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

### **Religious Holy Days**

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

***These descriptions and timelines are subject to change at the discretion of the Professor.***