UNIVERSITY OF OKLAHOMA

FINANCE 4103: INVESTMENTS

Spring 2011

Tuesday and Thursday 9:00 am - 10:15 am; AH 0315
Tuesday and Thursday 3:00 pm – 4:15 pm; PH 3010
Monday and Wednesday 1:30 pm - 2:45 pm; PH 3030
Monday and Wednesday 3:00 pm – 4:15 pm; PH 3010

Professor: Tor-Erik Bakke
E-mail: tbakke@ou.edu
Office Hours: TR 10:30-11 am, TR 2:15-2:45 and by appointment
Office: AH 259
Phone: (608) 770-7753

TA #1: Linda Fonkoue
E-mail: lindaf@ou.edu
Office Hours: TBA
Office: TBA

TA #2: Wole Segun
E-mail: wolesegun@ou.edu
Office Hours: TBA

Course Description
The purpose of this course is to provide a rigorous, hands-on introduction to the science of investing in marketable securities in global financial markets. It begins by discussing the contemporary investment environment including institutional aspects, and market efficiency. The course then moves on to modern investment processes, portfolio theory and applications, linear factor models and applications, portfolio performance measurement, bond valuation, equity valuation, forwards and futures markets and options.

This course will help you: 1) become familiar with a wide variety of financial securities found in equity, fixed-income and derivatives markets; 2) understand the theoretical basis for, and practical implementation of, widely-used asset pricing theories; 3) appreciate the fundamentals of portfolio management; and 4) develop important skills needed to succeed as an investment professional.

Required Background
I will assume that all of you have taken the prerequisites for this course. Also you must be somewhat familiar with Microsoft Excel. If this is not the case, you must talk to me on the first day of class to assure me that you have the appropriate background for this course.

To succeed as an investment professional, you must be competent in quantitative analysis, in particular in statistics and math. While this course should help you further develop your
analytic skills, I do not want to take up much time reviewing basic concepts that have been taught in your earlier courses. However, since statistics are crucial to understanding investment theory, I will give a brief statistics review.
Textbook

The textbook for this course is *Essentials of Investments* by Zvi Bodie, Alex Kane and Alan Marcus (published by Irwin). The suggested readings in the textbook are OPTIONAL. If something is mentioned in the textbook, but not discussed in class it will NOT be on any exam. That being said the textbook is very well written and often serves as a nice supplement to the material discussed in class. I encourage you to read the textbook if something does not make sense in class or if you want to learn more about a topic.

Course Material

All the lecture notes will be posted on the course website (learn.ou.edu). Lecture notes will be posted by 9 pm the day before the lecture (however, in most cases they will be available earlier). You should print these out and bring them to class. Please refer to the course outline to see which topic will be covered in each class. If we fall behind (or something changes) I will make adjustments to the course outline – and make the appropriate announcements on the course website.

You should check the website daily, and it should be the first place you want to look for course related information, or if you have questions regarding assignments.

The lecture notes will provide an outline of each topic, as well as useful graphs, tables, problems and formulas, but they are not meant to be comprehensive notes for the class. Everything discussed in class is fair game for the tests.

Grading

The final course grade will be broken down into the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
<tr>
<td>Investment Game</td>
<td>25%</td>
</tr>
<tr>
<td>(Part I and II: 5% each; Part III and IV: 7.5% each)</td>
<td></td>
</tr>
<tr>
<td>Homework</td>
<td>10%</td>
</tr>
<tr>
<td>(2.5% each)</td>
<td></td>
</tr>
</tbody>
</table>

The class is *curved* to approximately a B-average. It is your position relative to the other students that matters not how many points you obtain per se. For instance, getting a 62 on the exams does not mean you get a D. If the average is 70 a score of 62 may not be so bad. It is the average score and distribution of scores in the class that matters and determines the final grade.

Exams

Both the midterm and final will be held during regular class time. The final exam is *cumulative (comprehensive)*. Approximately 25% of the final with be ‘old’ (material from the first half of the class) and 75% ‘new’ material.
The exams will test you in two main areas. First, I will test you on the theories discussed in class. These questions will be short answer type questions. They could also take the form of a follow-up question to a problem (i.e. part (c)). This will be about 20-30% of the test. Second, the exam will ask you to solve problems based on assigned problems and examples in the class handouts. This will be about 60-70% of the exam. About 10% of the exam will be a question from popular press articles that are discussed in class.

Note that the exam does not have any multiple choice or true/false questions. All the questions are either short answer or problems. I typically include an extra credit question for an additional five percentage points.

**Exam Policies**

- All exams will be closed book and closed notes. You may only bring pens, pencils, erasers, and a calculator.
- I will provide you with a list of useful formulas. You may not make your own list. You will be given a copy of this formula sheet in advance to help you prepare for the exam.
- The exams **must** be taken at their scheduled times, unless you have a verifiable family or medical emergency. If you attempt to falsify an excuse, you will receive a zero for the exam.
- If you are caught cheating on an exam, you will receive a score of zero for the exam.
- All requests to have an exam regraded must be submitted to me in writing within one week after I hand back the exams. At that point I will re-grade the entire exam. No oral requests will be taken.

**Problems**

*Working problems is the only way to master this material.* You will **NOT** do well in this class if you do not know how to solve problems. Knowing the lecture material is **NOT** sufficient for scoring highly on exams.

There are three ways I will help you learn how to solve problems and prepare you for the exams.

1. I will go over problems in class as they relate to the lecture material. However, I will not have time to go over all the problems that are posted.
2. The homework assignments will force you to work through some problems. I will go over common mistakes in the class when I hand back the homework.
3. Additional practice problems will be posted on the website. Detailed solutions will be provided. I strongly encourage you to try to work the problems on your own before looking up the answers, since struggling with the material is (unfortunately) the best way to learn and remember it.

**ALL** the problems in 1-3 above are fair game for the exams.
Homework

This class has four homework exercises. The homework assignments will be checked primarily for completeness. Each will have three problems that you have to solve. They are graded on the following scale (maximum score is 10 points):

7 points: You made an honest attempt at each problem, but there are many mistakes
8-9 points: You completed everything, but there are some mistakes
10 points: You got almost everything right

You may discuss the assignment with other students, but every student is required to complete and submit his or her own original work. Solutions will be posted on the website. The due dates are posted on the course outline. Homework assignments will be posted at least one week before the due date.

Investment Game

Briefly, this project is an investment “game,” where the game objective is to “beat the market.” My goal with this game is to (1) show you how the concepts from class can be used by individual investors (2) motivate you to start looking at stocks and (3) familiarize you a little with the use of Microsoft Excel. To make the project realistic you will use real stocks and current market data.

This game is broken into four parts. Detailed instructions will be posted on the website. In summary the four parts are:

1. Pick ten stocks and explain why you picked these stocks
2. How did your stocks do last month? Did they increase or decrease in price? Why?
3. Form an optimal portfolio using techniques in class
4. Evaluate the performance of your portfolio. Did you beat the market?

Keep in mind that while beating the market will be your goal, your grade will not depend on whether you do or not. What will be important for getting a good score on each part is the quality of your answers. For instance, I will consider the following factors. Did you understand the material? Did you follow the instructions? Is your assignment neat and easy to understand?

The due dates are on the course outline. Instructions will be posted at least two weeks before the due date.

Popular Press Articles

I highly recommend that you keep up to date with the financial news by reading the Wall Street Journal, The Economist or the Financial Times (for a more global perspective). In addition, the World Wide Web has many sites that provide up-to-date financial information. A list of some of these sites is attached at the end of this syllabus.
In order to encourage you to read the popular financial press and to stimulate your interest in investment theory (and finance and economics in general), I will incorporate some relevant news articles into the class. To this end, I will assign selected articles as readings. **These articles will be posted on the course website.**

The posted articles will be discussed during class and may be used them as a basis for class or group discussion. There is an additional incentive for you to read these articles. The material in the articles is fair game for the midterm and final exam. I will not ask about details on exams, but instead ask questions that test your understanding of the main points in the articles or how an article relates to topics taught in this course.

**Attendance, Class Participation and Office Hours**

**You are expected to attend all class meetings** and this is the most efficient way to do well in this course. I will not enforce attendance, but I will pass around a sheet during class to see who attends class (for my record). You will not lose any points if you do not attend class, but it will be much harder to convince me that you are doing everything you can to learn the material if you do not attend class regularly. **Note that all four sections will be identical. Feel free to attend any section you prefer (assuming there are enough seats).**

Even if you do not attend class you **are still responsible** for learning the materials covered in all class meetings, and your assignments are due on the announced dates. How useful this course is to you will depend not only on what I teach you, but also on your dedication, hard work and class participation. To this end, I will expect you to observe the following norms:

- Ask questions whenever something is not clear. It takes time to learn new concepts, and asking questions helps. I view no questions as “stupid.”
- Participate actively in class lectures and discussions. This way you will get the most out of this course.
- I will never view honest mistakes negatively. I will use them as valuable learning opportunities. Often, there is not even a “right” answer. I simply want to know where you are in the learning process and prefer you to make a mistake to you not answering at all.
- If you have something to say, share it with everybody. No whispered comments to someone sitting next to you.
- Learn to challenge the ideas of your classmates, but be courteous. Always treat your fellow students with respect, listen to their answers and react to the issues raised by them. You will be surprised at how much you can learn from each other.
- Please prepare a legible name card and put it up in front of you during every lecture. This will help me and your peers learn your names more quickly.

My office hours are posted at the beginning of this document. I am also good at responding to emails. Please feel free to email me questions anytime. If you can’t make it during office hours talk to me and I will try to meet with you outside of office hours.
Course Outline

All deadlines are the second day of class in a given week!!! Homeworks and the stock project are all due at the beginning of class on Wednesday (for the MW sections) or Thursday (for the TR sections).

The midterm will be consolidated for all sections. Tentatively it is scheduled for Wednesday, March 9th at 7:30 pm. The midterm will be 90 minutes long. All the classes of Wednesday and Thursday (January 9th and 10th) are cancelled due to the exam. If you cannot make this exam please notify me immediately!!

The TR sessions currently have an extra session scheduled (due to MLK being on a Monday). As the course is identical for all sections this is unfair. Therefore one Thursday of classes will be cancelled for the students in the TR sections.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Read</th>
<th>Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1: January 17</td>
<td>Intro</td>
<td>BKM: 1-4</td>
<td></td>
</tr>
<tr>
<td>Week 2: January 24</td>
<td>Overview of Securities Markets</td>
<td>BKM: 1-4</td>
<td>Stocks Part I</td>
</tr>
<tr>
<td>Week 3: January 31</td>
<td><strong>SNOW STORM</strong></td>
<td>BKM: 5-6</td>
<td></td>
</tr>
<tr>
<td>Week 4: February 7</td>
<td>Statistics Review, Portfolio Theory</td>
<td>BKM: 5-6</td>
<td></td>
</tr>
<tr>
<td>Week 5: February 14</td>
<td>Portfolio Theory</td>
<td>BKM: 5-6</td>
<td>Homework #1</td>
</tr>
<tr>
<td>Week 6: February 21</td>
<td>Portfolio Theory</td>
<td>BKM: 5-6</td>
<td>Homework #2</td>
</tr>
<tr>
<td>Week 7: February 28</td>
<td>Portfolio Theory</td>
<td>BKM: 5-7</td>
<td>Stocks Part II</td>
</tr>
<tr>
<td>Week 8: March 7</td>
<td><strong>CAPM, MIDTERM</strong></td>
<td>Lecture notes</td>
<td>MIDTERM!!! STUDY ☺</td>
</tr>
<tr>
<td>Week 9: March 14</td>
<td><strong>SPRING BREAK</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 10: March 21</td>
<td><strong>CAPM</strong></td>
<td>BMK: 7</td>
<td></td>
</tr>
<tr>
<td>Week 11: March 28</td>
<td><strong>CAPM, Performance Evaluation,</strong></td>
<td>BMK: 7 and 18</td>
<td>Stocks Part III</td>
</tr>
<tr>
<td>Week 12: April 4</td>
<td>Arbitrage, Futures and Forwards</td>
<td>BMK: 13</td>
<td></td>
</tr>
<tr>
<td>Week 13: April 11</td>
<td>Options</td>
<td>BMK: 17</td>
<td>Homework #3</td>
</tr>
<tr>
<td>Week 14: April 18</td>
<td>Bond Valuation</td>
<td>BMK: 10-11</td>
<td></td>
</tr>
<tr>
<td>Week 15: April 25</td>
<td>Bond Valuation</td>
<td>BMK: 10-11</td>
<td>Stocks Part IV</td>
</tr>
<tr>
<td>Week 16: May 2</td>
<td>APT/Market Efficiency</td>
<td>BMK: 8-9</td>
<td>Homework #4</td>
</tr>
<tr>
<td>Week 17: May 9</td>
<td><strong>FINAL EXAM</strong></td>
<td>STUDY!!</td>
<td>STUDY ☺ ☺</td>
</tr>
</tbody>
</table>
Details

- Overview of Securities Markets
  - Structure and components of a financial system
  - Overview of financial assets and their marketplaces
  - The portfolio management process: planning and implementation
  - Using the Internet to obtain financial information

- Modern Portfolio Theory
  - Interest rates and risk premiums
  - Portfolio diversification
  - Risk-return trade-off
  - Optimal risky portfolios
  - Optimal complete portfolios

- Relating Expected Return to Risk: CAPM and APT
  - The Capital Asset Pricing Model (CAPM)
  - The Capital Market and Security Market Lines
  - Estimating Beta
  - The Arbitrage Pricing Model (APT)
  - Examples of implementation of asset pricing models
  - Empirical evidence on CAPM and APT

- International Diversification
  - Global Equity Markets
  - Risk factors in international investing
  - Diversification Benefits

- Market “Efficiency”
  - How efficient is the market?
  - Anomalies
  - Mutual Funds
  - Popular investment strategies

- Behavioral Finance
  - What is the behavioral critique?
  - Technical Analysis

- Evaluating the Performance of Investment
  - Performance evaluation measures
  - Mutual fund performance

- Bond Valuation
  - Yield and rate measures and term structure of interest rates
  - Straight bond valuation
  - Corporate bonds - bond ratings, convertible and callable bonds
- Duration and immunization; convexity
- Bond portfolio management

- Equity Valuation
  - Common stock picking techniques
  - Fundamental analysis
  - Dividend and earnings discount models

- Futures and Forwards
  - Forward pricing
  - Strategies for using forwards
  - Portfolio Insurance

- Options
  - Different types of options
  - Option Valuation
  - Black-Scholes Model
INTERNET ADDRESSES

Stock and Index Quotes

quote.yahoo.com
investor.msn.com
www.nyse.com

Bond, Currency and Foreign Exchange Quotes

www.bloomberg.com
www.quote.com

Mutual funds

www.morningstar.com
www.brill.com

Financial Market News

www.cnfn.com
www.bloomberg.com
www.dbc.com
www.wsj.com
cbs.marketwatch.com
www.economist.com
www.ft.com

Online Brokerage

www.schwab.com
www.tdameritrade.com
www.etrade.com

Company Information

www.sec.gov
www.hoovers.com
www.valueline.com
www.freeedgar.com

Interest Rate and Macroeconomic Data

www.stls.frb.org/fred