Course Syllabus (08/14/2015)
For
FIN651: Seminar in Investments
SPRING 2015

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Office Hours: Tuesday 19:00-21:40

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COURSE DESCRIPTION

Do you want to learn how to make (or lose) wads of cash in the stock market? If so, you are in the right course! This course will teach you many aspects of investing. We will cover everything from the real basics (such as what is a stock, a bond, or a mutual fund, how the stock markets function, how stocks are traded, bid-ask spreads, margin trading rules, the five biggest mistakes a new investor can make, the basics of options and futures, and many more aspects), to the more important questions like “do actively managed mutual funds beat the market?” “What type of mutual funds should you invest in?” “What is risk, and how are you rewarded for bearing risk?” and “How does one pick a portfolio that is likely to outperform the S&P500?”

Once we get through the background material, we will jump in headfirst to the answer the BIG question of "Can you predict the stock market?" This is not as straightforward a question as you might think. There are all sorts of issues that cloud the answer. Things like survivorship bias, data snooping, microstructure issues, and “cheating” on your reported results get in the way. We will discuss the stock picking skills of security analysts, brokerage houses, mutual fund managers, hedge fund managers, and other professional money managers. Then we will cover a range of stock picking/portfolio formation techniques that one might use to pick future winners and losers. These techniques will include traditional security analysis techniques, cross-sectional and time series based forecasting methods, the use of artificial intelligence in forecasting, and the one method that sometimes does the best: The use of darts in selecting your stock portfolio!

Concerning predictability of the stock market, you will find out that an objective opinion is that financial assets are predictable some of the time, but we have to use a good deal of caution to distinguish between chance correlation and true causality. Even when we do find evidence of what appears to be robust predictability, we will find that there still is a big concern about whether the results are attributable to a “free lunch” or to increased risk. We will attempt to analyze the evidence on stock market predictability from a very skeptical standpoint. Unfortunately, this approach will often times lead to answers such as “it depends,” “no one knows,” and “we need more data.”
COURSE MATERIALS

The **required materials** for this course are,


For additional information on your text, click [here](http://www.mhhe.com/business/finance/bkm/index.html):

The **optional materials** for this course are:

2. A current subscription to an investment periodical such as the *Wall Street Journal* is strongly recommended (an online version is also available in the library).

COURSE WEBSITE

The course website will be on Blackboard.

The direct link for Blackboard, click [here](https://blackboard.sdsu.edu):

Blackboard will have the syllabus and a calendar of events. The same website will be used to distribute lecture notes, post teams, provide answers to end-of-chapter problems, post extra readings, code and data files, etc.

*Please be sure to update your current e-mail address on blackboard.*

GRADING

Your grade for this course will be based on three quizzes, one exam and a group project. The weights for items to be used in the grading process are:

<table>
<thead>
<tr>
<th>Item</th>
<th>Percent of Grade</th>
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</thead>
<tbody>
<tr>
<td>1) Group Project</td>
<td>30%</td>
</tr>
<tr>
<td>2) Three Quizzes (10% each)</td>
<td>30%</td>
</tr>
<tr>
<td>3) Final Exam</td>
<td>40%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
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</tbody>
</table>

Grades for graduate students are: A (outstanding achievement, 4 points); B (satisfactory performance, 3 points); C (minimally passing, 2 points); D (unacceptable for graduate credit; course must be repeated, 1 point); F (failing), 0 points. Plus and minus grades are also used (the grades of A+, F+ and F– are not issued). In keeping with the SDSU Finance Department guidelines for graduate courses, it is expected that the average course grade will be approximately 3.2 (ranging between 2.9 and 3.5, depending on the overall class performance). Students above or below the average class performance will earn course grades that reflect their relative performance.
Class participation is not an explicit part of the grading scheme. However, I reserve the right to adjust your final grade based on an overall assessment of your contribution to the class. Insightful questions/comments that indicate careful preparation for and attention to class are good. Regular failure to attend and/or not to be prepared is not good.

The three quizzes will be short exams of approximately 20 minutes each. They will cover concepts and problems discussed in class, or end-of-chapter problems, or material from the text. The quizzes will take place during the normal class hours (these dates may change depending on the pace of our class, but will be posted at least one class in advance on Blackboard). The final exam will be longer than the quizzes, likely taking between 2-2.5 hours.

**Quiz 1:** Tuesday, September 15 (class 4)
**Quiz 2:** Tuesday, October 6 (class 7)
**Quiz 3:** Tuesday, October 27 (class 10)

EVERYONE will take the quizzes and exams on the given date. There are no make-ups for the quizzes or the exams. If you miss any of the quizzes, no matter what the excuse is, the weight of that quiz will be shifted to the final exam.

ACADEMIC INTEGRITY: No form of academic dishonesty will be tolerated. The easiest way to fail the course is to cheat.

CLASS PREPARATION
You will learn more and get more out of the lectures if you have read the lecture overheads and the corresponding text material prior to class. Prior to each class, I will post on the calendar on Blackboard what chapters we are covering.

The classes will generally focus on major issues and concepts in the textbook and handouts; however, you are responsible for all of the assigned materials. As partial preparation for the exams, it is suggested that you work the end-of-chapter problems. For each chapter, I will suggest end-of-the chapter problems that you should look over. These will not be collected. The answers for the end-of-the chapter problems will be posted on Blackboard.

As a prerequisite for the class, you are required to be familiar with the concept of multivariate regression and related statistical hypothesis testing.

STUDENTS WITH DISABILITIES
If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that I cannot provide accommodations based upon disability until I have received an accommodation letter from Student Disability Services. Your cooperation is appreciated.
MBA PROGRAM GOALS
MBA students will graduate with: A solid foundation in theoretical concepts and managerial skills needed to lead business organizations, The ability to analyze environments in which managers make and implement business decisions, and The skills to formulate, communicate, and coordinate strategies to solve business problems and pursue opportunities. FIN 651 contributes to these goals through its student learning outcomes.

COURSE OBJECTIVES
To study the structure and functioning of financial markets as well as the role and performance of the various market participants. To understand the theory and the empirical evidence on modern portfolio theory and asset pricing models. Assess the overall implications for active management and market efficiency.

LEARNING OUTCOMES
By the end of the course, successful students should be able to:

Understand and evaluate the structure of financial markets, the different types of securities and the performance of market participants.

Construct optimal portfolios following the tenets of modern portfolio theory.

Illustrate the theory and empirical applications of asset-pricing models: the CAPM, the conditional CAPM, APT and multifactor asset pricing models.

Appraise the empirical evidence on securities returns, active management and the related implications for market efficiency.

COURSE OUTLINE
We will be covering a substantial amount of material in a relatively short period of time. The course outline should be viewed as the general framework within which we will work. Consequently, the following schedule will be adjusted as necessary. In general, we will follow the chapter order of the text, interspersed with frequent handouts and other supplemental material. Will we get through all of the outlined material below? It is doubtful…and you are encouraged to slow us down as much as possible with insightful in-class discussions!

Material to be covered:
Chapter 1 (WEEK 1)
THE INVESTMENT ENVIRONMENT – 2
1.1 Real Assets versus Financial Assets – 3
1.2 Financial Markets and the Economy – 5
Consumption Timing – 5
Allocation of Risk – 5
Separation of Ownership and Management - 6
1.3 Clients of the Financial System – 7
The Household Sector – 7
The Business Sector – 8
The Government Sector – 9
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   Bank Discount Yields – 29
   Certificates of Deposit – 31
   Commercial Paper – 32
   Bankers’ Acceptances – 32
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   Repos and Reverses – 33
   Federal Funds – 33
   Brokers’ Calls – 33
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   Common Stock as Ownership Shares – 44
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   Stock Market Indexes – 46
   Dow Jones Averages – 48
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   Other U.S. Market-Value Indexes – 52
   Equally Weighted Indexes – 52
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   Options – 55
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Equity Funds – 109
Fixed-Income Funds – 109
Balanced and Income Funds – 109
Asset Allocation Funds – 109
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   E-Investments: Beta Comparisons - 291

Chapter 10  (WEEK 8-9)
Index models

Chapter 11 (WEEK 10)
Multifactor models and the arbitrage pricing theory (APT): where does it come from, why should it work, what are the factors, does it work?

Chapter 12  (WEEK 11)
Market Efficiency: definition of, problems with testing it, and how we test for market efficiency. Overview of examples of apparent violations of market efficiency.

Chapter 13  (WEEK 12-13)
Further tests of the CAPM, conditional CAPM, APT, and Market Efficiency (Empirical Evidence).

Quantitative analysis lecture.  (WEEK 13-14)
An in-depth review of research documenting EMH violations. The strategies, implementation rules, screening tools, backtesting, in-sample versus out-of-sample testing, upward biases in the evidence – data snooping, microstructure problems, failure to fully adjust for risk. Examples of real-world money management firms that use a quantitative approach to portfolio management and the techniques those investment companies use to pick their portfolios.

Group Project

The group project is a semester long project (A), designed to let you study in-depth a course-related topic. You may pick your topic from the list below, or come up with your own topic (which I must approve). The final project also contains an empirical part (B) - performance and pricing of a trading strategy - more details on this part during the class. 
The groups (3/4 people each) will be assigned by me and announced on Tuesday, September 8, on Blackboard.

Your group’s project choice (1st and 2nd best) is due to me no later than Tuesday, September 22. If you want to come up with your own idea for a topic, do not wait until September 22 to get approval. The final completed project (A) and the results of the empirical part (B) are due in class on Tuesday, November 17 (please send me also an electronic copy by email).

All the teams will present their projects and empirical part results in-class.

The final write-up (strictly related to A) you turn in should be approximately 5-10 pages in length. It should have an abstract, or executive summary. It need not have a table of contents. The text must include appropriate references and footnotes where needed. To discourage group member “deadbeats,” you will get a chance to evaluate all of the members in your group.
Potential topics for the group project

1. What should investors do about the recent market (last 12 months)?
2. Is there value in active fund management?
3. Provide an overview of on-line investor resources, especially ones that relate to the subject of financial planning, including portfolio choice, analysis of risk, tax considerations, etc.
4. Many economists believe the equity premium (the return to equities above the risk-free rate) will be much lower going forward than it has been in the past 50 years. Provide a summary of models and forecasts for the expected equity premium, and the implications for investors.
5. Provide an overview of the stock analyst profession. Do they provide any value? What conflicts of interest might they have? What actions have been proposed or taken recently to reduce their conflicts of interest?
6. Interview a local financial professional. What services do they provide? What value do they provide to the investment process?
7. Provide an overview of the major exchanges in the US, and around the world. What are the different formats? Which type of format provides a “better” market for investors and for companies that list on the exchanges? What do you think is the future structure of exchanges?
8. Using the mean-variance optimization techniques covered in your book (chapters 7&8), determine the “optimal” portfolio weights for the asset choices in a typical company retirement plan. Be sure to impose realistic constraints (no short selling, no leverage). Write up your report as a “how-to” manual for a group on non-financial savvy company employees on how to pick the optimal asset blend for their retirement accounts.
9. Enron, WorldCom, Anderson, the list goes on and on…accounting scandals, CEOs’ lack of ethics. Provide an overview of the recent scandals. What is being done by private groups and the federal government in an attempt to solve the apparent problems related to these events? Which actions make the most sense? Which actions make the least sense? What do you think should be done?
10. Recent changes to the federal tax laws have lowered the US tax rate on dividends. Provide an overview of the new law. Has the new law had an effect on company dividend policies? Should the new law have an effect on the expected return of a company?
11. Recently, the US government’s defense department implemented an online futures market for terrorist events. Due to massive public opposition to the program, it was halted almost as soon as it was started. Give an overview of the program, and discuss the pros and cons of such a program.
12. Hedge funds are proliferating like crazy! One year ago there were close to 9000 registered funds in the US. Provide an overview of the hedge fund industry, with an eye towards the performance of the industry. What types of strategies do hedge funds follow? Do hedge funds “beat” the market after fees and performance incentives? Is it possible to identify the best hedge funds?
13. On 02/03/14 Janet Yellen has been appointed as the new chairman of the US federal reserve. Provide an overview of the present and future policy changes that will result. Will these new changes be good or bad for the markets?
15. Write a paper reviewing 8 research articles from at least 6 different journals. Your group should read and discuss 8 research articles related to the field of investments. These articles should come from research journals, not newspapers or magazines. A list of acceptable journals is included.
   - Journal of Portfolio Management
   - Financial Analyst Journal
16. Estimate a conditional version of the CAPM and the Carhart (1997) model to provide a detailed characterization of the main asset pricing anomalies in expansion and recession states.

17. Your own ideas…

First assignment: pick your portfolio

Have you heard of the Wall St. Journal’s dart board game?

Assignment: pick a portfolio of stocks using any method (e.g., stories in the newspaper, hot stock tips from your Mom, throwing darts at the stock pages from the newspaper, etc.). The portfolio will be composed of five stocks. Assume that you have one million dollars to invest and that you equally weight your investment across the five stocks. Thus, the number of shares purchased for each stock equals $200,000 divided by the price of the stock as of the market’s close on Monday, September 7.

The assignment will be due in class on Tuesday, September 8. On a sheet of paper, print your name, student ID, the five company names, and ticker symbols. Please make a copy of your portfolio before you turn it in to me!

You will be responsible for tracking the values of your portfolio. My favorite (free) site to keep track of a portfolio is http://finance.yahoo.com/. You will periodically be asked to turn in the performance of your portfolio. No rebalancing is allowed.

The class as a group will pick a dartboard portfolio on the first day of class. This is a very dangerous process; as you will see during the first class.

Turn in your intermediate portfolio results in class on Tuesday, September 29 using Monday, September 28 closing prices.

Turn in your final portfolio results in class on Tuesday, November 3 using Monday, November 2 closing prices. The best and worst performing portfolios will be presented and discussed during our last day of class.

Critical class dates:
Sep. 8 (class 3): Turn in your stock portfolio choices – I will assign Project Groups.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep. 15</td>
<td>(class 4): Quiz 1</td>
</tr>
<tr>
<td>Sep. 22</td>
<td>(class 5): Turn in Group project topic.</td>
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<tr>
<td>Sep. 29</td>
<td>(class 6): Turn in the value and return of your portfolio.</td>
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<tr>
<td>Oct. 6</td>
<td>(class 7): Quiz 2</td>
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<tr>
<td>Oct. 27</td>
<td>(class 10): Quiz 3</td>
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<tr>
<td>Nov. 3</td>
<td>(class 11): Turn in the value and return of your portfolio.</td>
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<tr>
<td>Nov. 17</td>
<td>(class 12): Turn in final group project write-up and empirical part results.</td>
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<tr>
<td>Dec. 1</td>
<td>Final Exam in class at 7:00PM</td>
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<tr>
<td>Dec. 8</td>
<td>Final group project presentation in class - 1</td>
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<tr>
<td>Dec. 15</td>
<td>Final group project presentation in class - 2</td>
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