Course Description & Objective

Fin 121 (Investment Management) is a 3-unit elective course that aims to introduce students to the intriguing world of money and investing. The course will expose students to the various investment instruments available in the market i.e. bonds, stocks, derivatives and others.

At the end of the course, the students are expected to familiarize themselves with various investment alternatives and enable them to understand how these instruments work.

This course is an introduction to asset pricing and capital markets, designed to help students understand the economic concepts and financial theory necessary for analyzing investments. The major topics for this course will include: the principle of no arbitrage, risk and risk aversion, the risk-return trade-off, the concept of diversification and the efficient frontier, Capital Asset Pricing Model, Arbitrage Pricing Theory, the notion of market efficiency, and applications of portfolio management.

As a course concentration, the subject will place heavier emphasis on fixed income investment analysis. Focus will be on debt securities, risks associated with investing in bonds, understanding yield spreads and valuation of debt securities.

In general, the students are expected to develop these elements leading to sound investment decisions:

- **Analytical Tools** – The ability to transform a real life investment problem into an analytical tractable model. This modeling skill will be useful for one’s career.
- **Quantitative Skills** – Modern finance is very quantitative. Powerful mathematical techniques such as optimization, dynamic programming, probability theory and statistical analysis can be very handy.
- **Empirical Knowledge** – Knowledge of the investment environment is essential. Broadly speaking, financial instruments can be categorized into equity, debt and derivatives. Evidence from three types of financial markets will be examined in the course.

Topics

The semester will consist of 7 general topics, not necessarily in the following order:

I Financial Markets and Financial Assets

The course will begin with an overview of the different financial instruments that are often classified into asset classes. What are the rates of return on these asset classes? How do financial securities trade? This topic concludes with an examination of the structure of the mutual fund industry.

II Fixed Income Securities
This topic moves beyond basic bond valuation to more advanced topics in fixed income. The term structure of interest rates, duration and convexity will be covered.

**III Valuation**

This topic begins with a refresher in the fundamental stock valuation techniques from your preliminary courses. How to use the Capital Asset Model and the Dividend Discount Model is key, but more importantly, we begin to evaluate the inputs to the standard models. Industry analysis will be covered. Applying the dividend discount model will be the focus of this topic. Of particular concern will be the practice of estimating the components of the model.

**IV Portfolio Theory**

The concept of mean-variance efficiency and the efficient frontier is discussed. Forming the efficient portfolio from a list of assets. What are the benefits of diversification?

**V Asset Pricing Models**

The basic structure of the Capital Asset Pricing Model, will be examined.

**VI Market Efficiency**

How efficient is the market? Is there any evidence that the market is not efficient? Does this evidence represent a profit opportunity for investment managers? Behavioral Finance and Limits to Arbitrage.

**VII Derivatives (Options and Futures)**

This topic is intended to introduce the students to the futures and options. I cover the basic contracts and how to apply them, but more complicated derivative pricing is left for the derivatives course.

**Prerequisites**

Basic finance. I will assume that you are already familiar with basic algebra (e.g., solving a system of two equations with two unknowns), basic calculus (e.g., solving a simple constrained optimization problem), basic statistical concepts such as means, variances, covariances, and aggression models such as Ordinary Least Squares (OLS). You will have to use Excel to complete some of the homework assignments. You will need a business calculator for this class. The calculator should have the following keys: IRR, n, I, PV, PMT, FV, and CF. As long as those keys are present, the calculator is fine. If you may consider taking the CFA exam in the future, I recommend the HP 12c (this calculator is the finance industry standard and one of only two calculators that may be used on the CFA exam). The other calculator which is permissible for the CFA exam is the Texas Instruments BA II Plus. You should bring a financial calculator to every one of our class meetings.

**Course Materials**

**Required Reading**

- Other readings will be assigned from time to time.

**Learning Approaches**

**Readings and Assignments**: Regular completion of the assigned readings BEFORE & AFTER each class should be part of YOUR strategy to maximize the value of the course to YOU. Numerous
problem sets and cases will be assigned throughout the course to illustrate and reinforce the concepts presented in class. Punctuality in submission of assigned reports is a must.

Lectures: Class lectures will attempt to discuss, illustrate, amplify and expound on assigned readings. Powerpoint or transparencies will be used as lecture aids. Lectures supplement, but do not replace, the detailed readings of assigned materials.

Group Assignments: Group tasks shall involve a designated report and responsibility for problem solving of end of chapter assignments. While group assignments require equal inputs from members, any individual in the group may be tasked to expound on an assigned topic. Non-reporting groups are expected to comment on reports being presented.

I will allocate randomly a topic which will be presented in class. Presentations (i.e. MS Powerpoint type format) should be about 20-25 minutes in length. USBs should be used to load the slides into my PC before commencement of class. All students will be expected to equally share in the formal presentation. I will be grading the team's presentation overall. I will also require a printed version of your slides (2 to a page format) prior to your presentation.

After the presentation, and depending on time availability, a non-member of assigned group will be randomly asked to solve or comment on an end-of-chapter problem. This will be a COLD CALL. The “reporting” group is tasked to “complete” and comment on the answer. How the reporting group “completes” the answer and discusses the solution will serve as a partial basis of the group grade. Solutions will not be collected though.

Group tasks include rotation assignment to handle classroom arrangements, i.e. in-focus, overhead projector, etc. Groups given the classroom management tasks are expected to handle all course prerequisites at least 15 minutes before the regular class schedule.

Course Requirement
Attendance: An alert, inquisitive presence in each and every class is mandatory. You are allowed a maximum of three (3) cuts, excused or unexcused. You may be asked to withdraw from the course for excessive absence. While it is understood that coming in late is inevitable because of environmental constraints, habitual tardiness is generally frowned upon.

Midterm and Final Exam: There will be an in-class, closed-book, closed-notes midterm and a similar final exam. A reasonable average passing mark in the Mid-Terms and the Finals is a minimum requirement for a grade of D.

Class Decorum: You are expected to be 100% actively involved in all classroom activities. Nothing should detract the class from this stimulating learning experience. Hence, pagers are banned, as well as text messaging (incoming & outgoing). If you have to take an important call, you are advised to step out of the classroom. All phones MUST be turned off or in silent mode. I am adopting a NO OPEN LAPTOP POLICY during the lectures. INTERNET usage or any of its variants during class time is STRICTLY PROHIBITED. Anybody violating this rule will be penalized accordingly through point reductions and or in extreme cases, being asked to leave the classroom and marked absent for the class.

Grading System
Class Participation 10%
Group Report / Project 25%
Mid Term Exam / Finals 65% (30-35)
TOTAL 100%

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<tr>
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**Note:** Class Participation and Group Grades Count only if your MT / FINALS is at least a D+. If your MT/FINAL’s average grade is a straight D or F, that will be your final grade!

My grading policy allows for re-grades on all assignments and tests. However, the re-grade request –

- Must be accompanied by a clear and persuasive explanation for your request
- Will result in your exam or assignment being completely re-graded.

If you ask me to re-grade an exam, for example, I will re-grade **all** questions on the exam in addition to the answer(s) in question so that it is actually possible for you to receive a lower score after the re-grade than before. In fact, assuming grading errors are symmetric, the expected value of the change in points from a re-grade is zero! This policy is designed to ensure that the mean class score will not be increased artificially by corrections only of mistakes in students’ favor.

I encourage you to give me feedback about the course material, my teaching style and anything else that would help you learn the course material better. You should come and talk to me in person if you have any concerns and/or suggestions. If you are uncomfortable, please feel free to e-mail me.

**Other Important Reminders**

- The class meets once a week. The regular schedule is Saturday, 9am - 12nn. The lecturer may have to go out of town once in a while and whenever this will lead to class disruption, advance notice will be given the class.
- Students are expected to adhere to the JGSOM Dress Code.
- In the absence of any prior announcement from the Department, the class must wait for the teacher for 45 minutes after classes have started. No free cuts shall be deemed given unless this time has passed. Students who leave before this time shall be marked absent.