

**Georgia Institute of Technology**  
**Scheller College of Business**  
**Finance & Investments (MGT 6078)**  
**Fall 2016**

Instructor: Daniel Weagley

Office: Management 412

E-mail: daniel.weagley@scheller.gatech.edu

Class Time: TR 4:35PM - 5:55PM, 222 Management

Office Hours: MW 4:30PM - 5:30PM

Teaching Assistants: Jiyuan Ding (jding8@gatech.edu); Zhichao Wang (zhicwang@gatech.edu)

TA Office Hours: Fridays, 2:00PM - 4:00PM, Trading Floor (4167)

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**Overview:**

This course provides a sound foundation for the fundamental concepts in investments. The course will cover the concepts of risk and return, asset allocation, portfolio theory, theories of asset pricing and efficient markets, portfolio strategies and performance evaluation methods. The course is quantitative and relies heavily on analytical tools and economic theory developed throughout the course. The course also provides an overview of the financial markets and explains the central role of financial decision making in the functioning of the financial system.

**Prerequisites:**

Graduate level probability and statistics.

**Resources:**

*Text:* Bodie, Kane and Marcus (BKM), Investments, 10th Edition.

Note: This course requires the textbook's Connect feature. Connect will be used for online assessments and comes with an eBook. A hard copy of the textbook can be bundled with Connect for an additional \$40. Sign up for Connect at: <http://connect.mheducation.com/class/d-weagley-finance--investments---mgt-6078---2016>

*Course Materials:* Lecture notes, homework, sample exams and additional readings will be uploaded to T-Square

**Evaluation:**

Your course grade depends on your performance on homework, exams, and class participation. Exams will cover material from lectures, assigned readings, and homework.

Note: The use of SAS is recommended on certain assignments and projects.

Overall grades for the class are based on an absolute scale: A ( $\geq 90.000\%$ ), B ( $\geq 80.000\%$ ),

C ( $\geq 70.000\%$ ), D ( $\geq 60.000\%$ ), and F.

Your course grade will be weighted as follows:

Assignment	Due Date	% of Grade
<i>Exams (65%)</i>		
Exam 1	Thursday, September 22	20%
Exam 2	Tuesday, November 1	20%
Final Exam	Tuesday, December 13 (6:00PM-8:50PM)	25%
<i>Homework (30%)</i>		
Weekly Problem Sets	Monday at 11:59 p.m.	5%
Stock Pitch Presentation	Thursday, September 15	5%
Hedge Fund Strategy Presentation	Mid-semester	5%
Trading Simulation Blog	Weekly posts after Exam 1	5%
Trading Simulation Report	Thursday, December 1	5%
Trading Simulation Presentation	Thursday, December 1	5%
	Tuesday, December 6	5%
<i>Participation (5%)</i>		
Class Participation	-	5%

### Exams:

There will be two midterm exams and a final exam. The first midterm will be in class on Thursday, September 22, 2016 and will be worth 20% of the course grade. The second midterm exam will be in class on Tuesday, November 1, 2016 and will be worth 20% of the course grade. The final exam will be at 6:00pm on Tuesday, December 13, 2016 and will be worth 25% of the course grade. You must have prior permission to make up an exam. Only a special case will be considered a reason to permit you to take an alternate final exam. Exams will not be handed back in class. Students will be allowed to see their exam during office hours or another coordinated time for two weeks after the exam date. After two weeks, students will no longer have access to the exam and there will be no modification to the exam grade.

### Individual Homework:

*Weekly Problem Sets:* Each week I will assign a small set of problems that highlight the important concepts covered in the chapter. These problems will be assigned via the Connect system and due **Monday at 11:59 p.m.** You will have 2 attempts to complete each weekly problem set. The weekly problem sets will account for 5% of your final grade. Some problems on the exams will be taken directly from assigned problems.

## Team Projects:

*Teams:* Students will form teams of four members. Students will complete the equity investment pitch, the hedge fund strategy presentation and the trading simulation with their team. Team members will be asked to rate the effort given by each group member on each assignment.

*Stock Pitch Presentation:* Team members will work together to evaluate the equity of a company and its peer firms using techniques learned in class. Team members will present an 8-minute “pitch” of the investment based on their analysis. Students will evaluate their peers investment pitches and “make an investment decision.” The team with the most willing investors will receive 10% extra credit on the assignment. Additional details will be provided in class.

*Hedge Fund Strategy Presentation:* At the beginning of each class between the first exam and second exam (September 27th – November 1st) teams will present an investment strategy. Students can choose an investment strategy from the list of hedge fund strategies in Chapter 26 of the textbook, a different hedge fund strategy that students are interested in, or a strategy that the team members have created on their own. Presentations should be approximately 8 minutes long. The presentation is worth 5% of the total grade. Each group member must present and grades will be given based on the individual’s presentation as well as the overall presentation.

*Trading Simulation:* Team members will work together to create and implement an investment strategy. The investment strategy will be of the members choosing (i.e., you can choose whichever investment strategy/stocks you prefer). The trading simulation will be worth 15% of your course grade. The trading simulation will consist of three parts. The first part is a weekly blog documenting your investments, the second part is a final report and the third part is a group presentation reviewing your performance. The final report is due Thursday, December 1st at the beginning of class. Presentations will be held in class Thursday, December 1st & Tuesday, December 6th. **The top team in terms of total return (as of Thursday, December 1st at the start of class) will get 10% extra credit on the assignment.**

*Additional details on the Trading Simulation:*

The trading platform we will use is StockTrak. The link to register is: <http://stocktrak.com:80/members/registerstudent?className=GT-6078-F2016>. Please create one login per group. The purpose is to provide you with the opportunity to engage in actual portfolio management activities. The project should serve as a useful way of applying concepts you learn during the course.

You begin with a balance of \$1,000,000 in a brokerage account. You can invest your port-

folio in stocks, bonds, or any other financial asset. You are supposed to engage in at least one buy-sell transaction per week; a passive strategy is not acceptable.

Each week your group is required to **blog** about your weekly trades and current performance. The blog should detail the reasoning behind the trades and any analysis conducted. Each blog post should be approximately three paragraphs or one page if printed.

The final report should summarize the performance of the portfolio, including gains and losses from the resulting transactions. The specific organization of the report should be as follows:

1. Introductory comments
2. Statement of your ongoing investment objectives.
3. Specification of your risk tolerance.
4. Description and evaluation of the securities transacted. Give information about size, beta, prior stock price performance, return, and P/E ratios.
  - If you conducted a significant number of trades during the trading period, discuss only a representative sample of trades (10-15) in detail. I would suggest discussing the trades in which the most analysis was used to make the trading decision. Discuss any models or evaluation criteria used. If some of your trades were part of a larger strategy, please discuss the strategy in detail and discuss a few example trades.
5. Application of some models (if any). A portion of your group's trades should be motivated by knowledge/skills obtained in this class to make your investment decisions. For example, the use of equity valuation models to determine whether or not equity is under or overvalued, or trading on an anomaly discussed in class.
6. Calculation of returns for your portfolio and other performance measures (Sharpe ratio, Jensen's alpha, Treynor ratio, information ratio, etc.)
7. Concluding remarks
  - For the concluding remarks, discuss what you learned, any behavioral biases that may have affected your decision making, your opinion on the efficiency of markets and anything else you find relevant.

Requirements for the written report:

1. The report write-up (not including the appendix or cover page) should be at least 4 pages, single-spaced with appropriate margins. A report longer than 4 pages will not be penalized.

2. Figures and charts should be placed in an appendix.
3. The report should have a cover page.
4. The report should be professionally written.
5. The report grade will be based on the quality of the report, whether or not all outlined requirements are met and the depth of the analysis in making trading decisions and analyzing the performance of the trades.

Requirements for the presentation:

1. The presentation should be eight minutes.
2. Every group member must present an equal amount of time.
3. The presentation should **highlight** the topics covered in the report. The group does not need to discuss every trade made. Instead, the presentation should highlight the trades with the most analysis and/or the most interesting trades.
4. Presenters should approach and make eye contact with the class (not just the professor), have an appropriate flow to their presentation, and not be reliant on the slides.
5. The presentation grade will be based on the quality of each individual's presentation (a significant portion of the presentation grade will be based on the individual's presentation), the organization of the presentation, the layout of the slides and any typos, and the depth of analysis.

**Participation:**

The participation grade will be determined by completing in-class work and participating in class discussion. Participation is worth 5% of your overall grade. In-class work is worth 80% of your total participation grade. I will collect work in ten random classes throughout the semester. Each day will be worth 10% of your participation grade up to a maximum of 80% (i.e., attend at least 8 of the 10 classes in which attendance is taken for full credit). The class participation grade is worth 20% of your total participation grade. It will be based on engagement in class discussion. Students should ask and provide thoughtful questions and answers benefiting all students.

You are responsible for all announcements made in class. Check with your colleagues if you miss class.

You will need to bring a computer with Microsoft Excel to most classes. Laptops and cell phones are permitted during class. Cell phones may only be answered in case of emergency.

Please refrain from visiting social networking sites and texting during class.

### Honor Code

It is your responsibility to familiarize yourself with the Georgia Tech Honor Code. Students are expected to follow the Honor Code. Violations of Honor Code will result to an F grade in this course. Any violation of the code will be further reported to the university.

### Tentative Class Schedule (subject to change):

Week	Class Topic	Homework and Exams
1	Syllabus and Basics of Finance	
2	Financial Statement Analysis (Ch. 19)	
3	Equity Valuation (Ch. 18)	
4	Trading Securities (Ch. 3) Stock Pitch Presentations	Stock Pitch Due (Thursday, September 15th)
5	Trading Securities continued (Ch. 3) Exam 1	Exam 1 (Thursday, September 22nd)
6	Risk, Return and Portfolio Math (Ch. 5)	
7	Introduction to Asset Allocation, Portfolio Theory and Mean Variance Analysis (Ch. 6 & 7)	
8	Fall Break Portfolio Theory Continued (Ch. 6 & 7)	
9	Single-Index Model & CAPM (Ch. 8 & 9)	
10	APT & Multi-factor Models (Ch. 10)	
11	Exam 2 Market Efficiency and Anomalies (Ch. 11 & 12)	Exam 2 (Tuesday, November 1st)
12	Market Efficiency and Anomalies (Ch. 11 & 12) Performance Evaluation (Ch. 24)	
13	Performance Evaluation (Ch. 24) Applied Portfolio Management (Ch. 27)	
14	Applied Portfolio Management (Ch. 27) Thanksgiving	Online Lecture (No In Class Lecture)
15	Applied Portfolio Management (Ch. 27) StockTrak Presentations	StockTrak Report Due December 1st
16	StockTrak Presentations	
<b>17</b>	<b>Final Exam</b>	<b>Final Exam on Tuesday, December 13th</b>