

GEORGE MASON UNIVERSITY

**SCHOOL OF BUSINESS
FINANCE DEPARTMENT**

GMU Student Investment Fund
Applied Financial Security Analysis, FNAN 491



Fall 2017 Syllabus

Applied Financial Security Analysis

FNAN 491

Fall 2017

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Course Website: Blackboard

Office Hours: MW 11:00 – 12:00 and by appointment

Course Objectives

The purpose of this course is to provide each student with real world and hands-on experience in security analysis and portfolio construction through the management of the GMU Student Managed Investment Fund. Class participants will collectively be in charge of the investment decisions of the fund, the overall portfolio composition, and will employ various financial models used to assess sector, industry and individual security strength/weakness in their decision-making. Each student will be required to perform the necessary quantitative and qualitative work, Bloomberg analysis, and present their research to all other fund members/faculty each semester. Security selection will be based on a diversified equity portfolio approach seeking to enhance risk-adjusted returns versus commonly used market benchmarks. Faculty and professional mentors will train students in the application of fundamental analysis and security selection through several lecture/workshop sessions. Increased interaction with the investment community through this class will provide enhanced learning opportunities and exposure to recent industry practices.

Learning Goals

Upon successful completion of this course students will be able to (1) evaluate and explain the risk and return of various investment opportunities within an industry/sector, (2) conduct research necessary to construct and manage a portfolio, (3) present the accompanying analysis to a group of investors and produce a prospectus to investment clientele.

Prerequisites

Students are expected to be familiar with basic economics, statistics, financial statement analysis, and Bloomberg operations. Thus, you are required to have successfully completed FNAN 301/303, ECON 103, ACCT 201/203, FNAN 311 and FNAN 341. No exceptions to the SOB rules of admittance. Taking any of the aforementioned classes concurrently with this course is not possible. If you do not know whether you meet the requirement, you should notify the instructor and also consult Student Services.

Course Textbook and Resources

Required Textbook:

- Graham, Zweig, and Buffett. *The Intelligent Investor: The Definitive Book on Value Investing. A Book of Practical Counsel.* Fourth Edition.
- Graham and Dodd. *Security Analysis.* Sixth Edition.

Suggested Textbook:

- Buffett and Cunningham. *The Essays of Warren Buffett: Lessons for Corporate America Essays.* Third Edition.

Grades

Your final grade will be based on:

Investment Report, Valuation Model & Presentation	40%
Macro Fundamental Analysis and Presentation	20%
Past Performance Presentation	20%
Classroom Participation	20%
Extra Fund Analysis (Risk Report)	5%

Grade distribution is based on a standard 10-point scale: 92-100 = A; 90-92 = A-; 88-90 = B+; 82-88 = B; 80-82 = B-, etc. All grades are calculated straight from the raw points allotted from each assignment.

Learning Outcomes

As a result of completing this course, students will be able to:

- (1) Apply cumulative experience to craft an investment thesis and provide investment recommendations to their peers/fellow portfolio managers (classmates) that will have a positive impact on the GMU Student Investment Fund.
- (2) Synthesize security, sector, and industry analysis to provide a sector overview via in-class group presentation.
- (3) Evaluate Businesses: Outline the characteristics of a business and their business model, e.g., evaluate cyclicalities, understand and evaluate the overall business quality using qualitative metrics, e.g., Return on Invested Capital (ROIC), Return on Assets (ROA), Return on Equity (ROE), profit margin - use for company analysis and apply DuPont formula.
- (4) Analyze the Balance Sheet: Evaluate the appropriateness of the company's balance sheet structure, especially considering their business model using quantitative metrics, e.g., Debt/Equity, Times Interest Earned, Equity Multiplier.
- (5) Apply valuation techniques and metrics to determine the intrinsic value of a business, e.g., Price to Earning (P/E), Price to Book (P/B), Price to Tangible Book (P/TB), Price to Cash Flow (P/CF), Enterprise Value to Earning Before Interest Taxes Depreciation and Amortization on (EV/EBITDA), Discounted Cash Flows (DCF), industry and competitor comparative analysis.
- (6) Apply macro-valuation techniques to come to a recommendation on fund net exposure.
- (7) Understand how donor outreach, and investor relations are managed within investment funds and wealth management vehicles.

Sector Teams

Students will be assigned to one of six "sector teams" at the beginning of the semester:

	# Student Analysts
Consumer Discretionary & Staples	3
Energy & Utilities	2-3
Finance & Real Estate	2-3
Health Care	2-3
Industrials & Basic Materials	3
Technology & Telecom	3

Each sector team will be responsible for monitoring activity within their respective sector:

- (1) Monitoring individual stocks held by the fund within their sector. This includes updating “the story” and financial ratios for those individual stocks and monitoring prices of those stocks relative to their sell price target and against sector ETF prices.
- (2) Working together as a team to screen and then select stocks for presentation, even though one person will ultimately bear the responsibility for researching and presenting each of the individual stock selections to the entire group.
- (3) Making periodic reports to the entire class about their sector – key macro events affecting the sector and stock performance within the sector.
- (4) Writing a summary on the performance of the sector. This includes analysis of the performance of the individual stock picks from that sector, the rationale for including these stocks in the portfolio, and a brief discussion on whether these stocks’ investment theses materialized during the semester.

Student Analyst Role

As noted in the course objective above, the chief learning objective is to provide each of you with the experience of doing fundamental research and valuation analysis on a company and then selling your recommendation to a discerning and perhaps somewhat skeptical audience of your peers. Each student analyst will search through the stock universe within their respective sector to identify a stock that is potentially undervalued by the market for inclusion in the portfolio. The student will conduct his/her due diligence and analysis of the company, write a research report and present it as a “buy” recommendation to the class. Also, understand undervaluation alone is not a catalyst for a positive return; a company’s shares can remain undervalued for an excruciatingly long time (aka “Value Trap”). So you must dig deeper and try to surface what the true “catalyst” is, what’s the story, and why you expect the stock to outperform its sector ETF in the next 6 – 12 months.

Following the presentations by students of their stock recommendations, each student will be asked to vote as to whether the recommended stock should be purchased and whether all of the available funds allocated for the sector should be invested. Each student, including the presenter, will have one vote. It should be understood by each of you that the intent of a “yea” vote is that you believe that the presented idea will positively impact the fund as a whole. This means that the corresponding stock from the time of purchase will outperform the sector ETF and contribute to the overall fund outperforming the benchmark.

In order to maintain a well-diversified portfolio, no single stock can represent more than 10% of the total portfolio. Sometimes when a stock is voted upon favorably for inclusion in the portfolio, there will not be sufficient sector ETF funds available to fund it. In that situation, the sector team will be prepared to recommend any required changes to the portfolio. The professors retain the authority to veto or alter the class's decision if they believe it is in the fund's best interest to do so. The most likely case of this power being utilized is if the overall beta of the portfolio becomes excessive, thus making it far too sensitive to the co-movement of the benchmark.

Investment Report, Valuation Model & Presentation (40%): The written investment report is your most important activity in this course. The report will analyze a particular company/set of companies in detail and provide an investment recommendation. Your analysis will consist of an Investment Thesis, Company Description, Industry Analysis, Financial Analysis, and Valuation Analysis. In addition, some focus should be placed, in the report and certainly in the presentation, on identifying 2-3 key drivers or “catalysts” that you believe will likely boost the stock price. The report will be individually prepared and submitted by email, along with the valuation analysis in excel, to the entire group and to the instructors one full week prior to the presentation date. In the written investment report, the analyst should take time to address how the proposed stock(s) fits with the rest of the portfolio and the other stocks currently held in the same sector. The analyst will also prepare a power point presentation in support of the investment thesis and buy recommendation. Since a big part of your future management careers is to sell your ideas successfully to clients, colleagues, employers, and employees, it is important that as part of your in-class presentation, you present arguments that are well constructed and convincing.

Macro Fundamental Analysis and Presentation (20%): Equally important to stock picking and the analysis of balance sheets is the over-all market exposure that a fund manager decides on when constructing their portfolio. Each group will put together a macro-level analysis of what the overall portfolio position should be in terms of overall exposure. Even though the bylaws state that the “overall gross exposure of the Fund should be between 90% and 120% at all times and that the net exposure should be at least 90% and at most 110%”, your recommends may be outside these bounds and may extend to other equity classes (i.e. international). Included in this report will also be a sector outlook as well where a recommendation is made by each group on the overall weight that should be applied to their sector (within a +/- 4% of S&P 500 sector construction guidelines). Altogether, each group's report should provide detailed analysis of macro-level over/undervaluation metrics and future outlooks based on analyst calls and other sources of information.

Past Performance Presentation (20%): To begin the class, each group will look back at the previous portfolio allocation and decide what choices previously made went well and which did not go well. In this report to stakeholders will be an overall look at portfolio level alpha, Treynor, beta, etc as well as analysis of sector performance and individual stock performance. This project will set each group up for recommendations to remove particular stock holdings or not in later consideration as well as the tools to use in terms of valuations metrics.

Extra Fund Activity (5%): These activities are intended to enhance the fund experience and increase awareness of the undergraduate student managed fund outside of class. This assignment will focus on risk measures of the overall portfolio (VaR) and will require outside research if attempted for extra credit. Each student separate from their group will individually be required to perform all analysis and produce all work separately for this particular assignment.

Class Policies

In general, you should treat the fund experience as you would your first job in a “buy side” investment firm. You are expected to show up for work each day, submit your assigned reports on time and be prepared to engage your coworkers. We are managing real money for the School; analyzing stocks in a meaningful way to outperform the market is very difficult, and managing the risk and return of this portfolio is serious business.

(1) Class Attendance:

We expect students to come to every class prepared for active participation. Just like your job after graduation, there is no such thing as an “excused absence.” We will honor “explained absences” for illness or for some very important professional activity (if the latter is discussed with the faculty beforehand). You can’t earn participation points if you are not there, and you short change your colleagues if you are not there to discuss their companies. Don’t be late for the class.

(2) Deadlines for Deliverables:

All your stock reports are due one week prior to the scheduled presentations, by 5 pm on a class day, a Monday or a Wednesday. The time of your submission is based on the email time when we received your report. It is critical to publish these reports on time or earlier. So you must start your research early, finish and plan or contingencies. Late reports will suffer grading penalties.

Appeal of Grading

If you wish your answer to a question to be regarded, first submit a copy of your answer to the question and a written explanation of why you believe that the grading is incorrect. You must turn in this material within one week after the graded work is returned. In general, the entire exam will be checked for grading errors, and correcting these could either raise or lower the overall score.

University Office of Disability Services

If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center at (703) 993-2474. All academic accommodations must be arranged through the DRC.

Academic Misconduct

Academic misconduct causes failing the course and triggers quite unpleasant university-mandated procedures which result in further sanctions. Faculty Rule 2.11.5 (Faculty Responsibility under the Honor Code) requires alleged misconduct to be reported to the department and the Honor Committee. So follow the GMU honor code at all times and don't even think about cheating!

School of Business Recommendations for Honor Code Violations

Approved May 2016

UG-Non Freshman Students (including transfer students)

Type of Violation	First Offense	Second Offense
<p>Plagiarism</p> <ol style="list-style-type: none"> 1. Failure to cite/attribute sources 2. Representing someone else's work as the student's own (e.g., copying and pasting) 	<p>An F in the class; referral to Writing Center; and Academic Integrity Seminar completion</p>	<p>An F in the class; referral to the Writing Center; Academic Integrity Seminar completion; termination from the School of Business; and at least one semester suspension or expulsion</p>
<p>Cheating</p> <ol style="list-style-type: none"> 1. On a minor assignment (e.g., homework, quizzes) 2. Cheating on a major assignment or exam, submitting course work from another course as original work 	<p>An F in the class; and Academic Integrity Seminar completion</p> <p>An F in the class; and Academic Integrity Seminar completion, and at least one semester suspension</p>	<p>An F in the class, Academic Integrity Seminar completion; termination from the School of Business; and at least one semester suspension or expulsion</p>
<p>Lying (e.g., providing fraudulent excuse documents, falsifying data)</p>	<p>An F in the class; and Academic Integrity Seminar completion, and at least one semester suspension</p>	<p>An F in the class; Academic Integrity Seminar completion; termination from the School of Business; and at least one semester suspension or expulsion</p>
<p>Egregious Violation (e.g., stealing an exam; submitting coursework from another class as original work across multiple courses; lying to an employer about academic performance, false identification or posing as another, in person or online)</p>	<p>An F in the class, Academic Integrity Seminar completion; termination from the School of Business; and at least one year suspension</p>	<p>An F in the class; Academic Integrity Seminar completion; termination from the School of Business; and expulsion</p>