## **Teaching Statement**

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## 1 Summary

I started in my current position at University of Georgia in Fall 2008. My primary teaching load was to teach upper-level finance courses, FINA 4310 (Survey of Investments) and FINA 4330 (Trading Strategies and Financial Models). The latter course is a new course I developed from scratch. I successfully taught the new course to about 200 students in the six semesters since the introduction. While teaching the new course, I have written the accompanying textbook that is currently being considered for publication by John Wiley and Sons.

In addition, I taught three semesters of a PhD-level course, FINA 9210 (Empirical Research in Investments), which has received excellent ratings from the students, and the three semesters of First-Year Odyssey Seminar (Trading and Risks) for incoming freshmen. The program of the freshmen seminar was also developed from scratch.

In Spring 2013, the students from Alpha Kappa Psi business fraternity recognized my teaching of the Trading Strategies course by the Alpha Kappa Psi Teaching Award.

### 2 Teaching Philosophy

In teaching finance courses, I believe in three things: hard work, hands-on experience, and making students think rather than memorize.

I believe that the optimal outcome of the learning process is achieved only if both the students and the instructor work hard during the course. I expect the students in my courses to put in significant number of hours in completing the homework and studying for the tests. I also realize that when the students work hard, it makes the instructor work even harder, and I welcome that. I spend significant amount of time developing the original homework rather than resorting to standard problems, and I make it a rule to be always available to help if the students have questions. I would routinely see students outside of the normal office hours and answer their questions by e-mail in the evening. I believe that my mission as a teacher is to lead students through the difficult areas in the subject rather than to oversimplify things in order to make students more comfortable and make my out-of-class working hours shorter.

I believe it is impossible to learn how to swim if you never touch water. Therefore, I strongly believe that finance courses should give students experience in trading and in analyzing the historical data from financial markets. In my undergraduate investments course, I address those two needs by, first, having students actively trade in StockTrak (the simulation trading environment based on real market data), and, second, by including in my course empirical projects that analyze historical stock returns. In my PhD course in asset pricing, I supplement the discussion of the relevant research by empirical homeworks that gradually introduce students to working with SAS and the most popular WRDS data sets, with the final goal of bringing the students to the level at which they can reproduce the empirical results of one of the papers we cover.

I believe in the adage "education is what is left after you have forgot everything you learned". I believe that students should be well-equipped not only for taking the tests, but also for making use of their knowledge several years down the road. I understand that five or ten years down the road they will forget the formulas and the approaches to solving the standard problems. They will forget the exact CAPM formula, but if they understand while taking the course that only undiversifiable risk matters and/or that a risky asset is the asset that loses value when the market goes down, they are less likely to forget that and they will make more use out of that than out of the CAPM formula they memorized (and then most probably forgot). They will forget the cost-ofcarry formula, but if they learn how to use futures market to profit from the mispricing of a commodity, they will probably be able to derive the formula on the spot.

### **3** Teaching Methods and Materials

I employ several teaching methods and materials to solidify the concepts I am teaching. My main teaching tools include:

- Simulation trading I use StockTrak simulation trading platform in all my undergraduate courses. StockTrak lets students perform imaginary trades using real-time market quotes and observe the consequences that would have happened in real life. In my Trading Strategies class, StockTrak is also used for completing the homework that requires the students to implement the trading strategies discussed in the course.
- Case Studies I use HBS cases in my Trading Strategies class. The cases help the students to see the challenges of implementing the trading strategies discussed in the course in real life and consider the approaches traders use to overcome these challenges. I supplement each case by a list of questions I tailor to the course material and the answer keys for the students to refer to after the in-class case discussion.
- Stock market data I design the homework that requires students to analyze historical market data in order to evaluate the risks, trading costs, and potential gains from investing in particular stocks and classes of stocks. In the end of my courses, the students also apply the concept they learned in the course to a comprehensive performance evaluation of their own StockTrak portfolios.

4	Evidence	of	Teaching	Effectiveness
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Term	Course	Degree	Complete	Course	Instructor	Course	Average
			Evals /	Excellent	Excellent	Total	GPA
			Enrolled				
2014-Spring	FINA 4330	BBA	12/26	4.00	3.91	4.32	
2014-Spring	FINA 4330	BBA	10/19	4.20	4.00	4.15	
2013-Fall	FYOS 1001	BBA	15				
2013-Fall	FINA 4330	BBA	14/22	3.86	4.29	4.29	3.33
2013-Spring	FYOS 1001	BBA	17				
2013-Spring	FINA 9210	PHD	6/7	4.17	4.17	4.34	3.71
2013-Spring	FINA 4330	BBA	20/32	4.25	4.30	4.44	3.45
2012-Fall	FINA 4330	BBA	13/17	4.15	4.08	4.33	3.43
2012-Spring	FINA 4330	BBA	20/31	3.85	3.80	4.21	3.44
2012-Spring	FINA 4310	BBA	19/30	3.79	3.63	4.07	3.24
2012-Spring	FINA 4310	BBA	16/21	4.00	3.69	4.15	2.95
2011-Spring	FINA 9210	PHD	6/8	4.80	4.83	4.62	3.67
2011-Spring	FINA 4310	BBA	18/22	3.5	3.18	3.82	3.35
2011-Spring	FINA 4310	BBA	10/24	4.00	4.00	4.33	3.11

The teaching evaluations at University of Georgia ask, among other questions, whether students agree or not with the following statements: "Overall, the course was excellent" and "Overall, the instructor was effective at teaching". "Strongly agree" is coded as 5, "agree" as 4, "neither agree nor disagree" as 3, etc.

"Course total" reports the average for 20 different questions about the course, e.g., "The course was useful", "I learned a lot in the course", "Exams were fair", "Instructor was enthusiastic", "I would take another course with this instructor", etc. The answers were coded as described in the previous paragraph.

The courses codes in the table denote the following courses:

- FINA 4330 "Trading Strategies and Financial Models", upper-level elective for seniors, open for MBAs and Masters students
- FYOS 1001 "Trading and Risks", one credit hour seminar for freshmen, taken in their first semester at UGA
- FINA 9210 "Empirical Research in Investments", PhD-level course in empirical asset pricing, required for finance PhDs only, often attended by economics, marketing, forestry PhDs
- FINA 4310 "Survey of Investments", introductory course in investments and financial markets, offered to junior with little finance background except for the basic finance course on discounting, NPV, etc.

# 5 FINA 4330 "Trading Strategies and Financial Models"

I have created a new upper-level elective on trading strategies. This course has not been offered before in Terry College, but similar courses were offered by peer and aspirant schools. The course was well received by the students and has been offered in every semester since Spring 2012, when the course was launched. In total, over 200 students have taken the course since then and provided very positive feedback.

The course is a hands-on course that teaches the students the cutting-edge results from my field of expertise and makes these results applicable to real life. The students trade on a simulation trading platform (StockTrak) following the strategies explored in the research literature. The trading platform uses real-life stock prices, thus showing the students exactly what would have come out of their investment decisions if they had been trading with real money. I also provide the students with the tools of analyzing the risks and trading costs of the strategies, as well as performance evaluation techniques for analyzing the performance of passive and actively managed portfolios.

To facilitate the students learning, I have put together a series of class notes that have evolved into a textbook manuscript, currently being considered for potential publication by John Wiley and Sons. I have also developed innovative homework assignments that involve trading on a simulation trading platform using my directions, analyzing historical market data, and working on relevant case studies from Harvard Business Schools.

I feel that my textbook will be able to fill the current void in the textbook market, where a big gap exists between undergraduate/MBA textbooks and master/PhD textbooks. If an instructor wants to venture off the script in the standard investments course or create an advanced investments elective that would discuss such topics as Conditional CAPM or the momentum anomaly, the instructor has to choose between very cursory conceptual overview in undergraduate/MBA textbooks and really rigorous treatment involving derivations, advanced statistics, and advanced econometrics in PhD-level readings. What is missing from the textbook market is the textbook that would explain, say, the Conditional CAPM in plain English rather than in formulas and then would teach the students to apply it to historical data using a simple linear regression.

A number of students managing the student-managed investment fund (SMIF) have taken my Trading Strategies class and found it useful in guiding them in their investment decisions for the fund.

### 6 FINA 4310 "Survey of Investments"

I taught the undergraduate course "Survey of Investments" in Spring 2009, Spring 2010, Spring 2011, and Spring 2012. I am trying to make this course follow the recent developments in the understanding of risk and market efficiency. In addition to teaching the basic textbook things, I introduce students to the new results in these topics that are not covered by standard textbooks, at the same time trying to keep the material simple and intuitive and not to overwhelm the students with technical details. That makes my course quite unique, since parts of it introduce the students to graduate-level ideas at the undergraduate technical level.

Another important part of my course that is very popular with students is trading in StockTrak. StockTrak is the trading environment where students trade with imaginary balances, but using real-life quotes. I use StockTrak in a variety of ways. First, I require that students perform several trades each week, which helps them learn the ropes and understand how trading happens in real life. Second, I require students submit weekly reports with a short justification of their trades, which helps the students link the concepts from the course with the trading they do and also helps the students develop the skills of working with several sources of information about financial markets. Third, I include the competition components with bonuses to the trading teams that beat the passive portfolio (at the end of the course and during several separate three-weeks periods within the course) and bonuses to the trading teams that end up in the top three. Fourth, at the end of trading I ask students to evaluate their own performance using the performance measures and performance evaluation techniques they learn during the course.

The last part of my course that makes my course quite unique is the empirical projects. I supply students with historical data about stocks and mutual funds and ask them to use these data in performing the analysis we discuss during the course. For example, after I teach portfolio theory and show the students how to find the mean-variance portfolio, I assign the project that asks to take the given series of historical returns to two stocks and construct a mean-variance efficient portfolio out of them. After I teach the CAPM, I assign the project that asks to take the historical returns to a mutual fund, estimate its alpha and beta, and conclude on the risk of the fund and its desirability as an investment vehicle. I think the projects are an essential part of the class, since, for example, the formula for portfolio variance is quite useless to the one who cannot compute returns from the closing prices and then compute the inputs for the formula using the historical returns. Both steps sometimes prove to be challenging compared to how easy similar things looked on a multiple-choice test, but I feel that the final learning outcome justifies the effort.

### 7 FINA 9210 "Empirical Research in Investments"

In Spring 2011 and Spring 2013, I taught the PhD-level course in empirical asset pricing. I developed the course from scratch using the most recent research, as I think always should be done in PhD-level courses.

In my mind, the PhD courses are different from undergraduate/MBA courses in one

important way. Undergraduate/MBA courses are about learning specific things. There is always a list of concepts students have to understand by the end of the course and a list of things they should be able to do by the end of the course. Most importantly, there is always the correct way to understand what they are supposed to understand and to do what they are supposed to be able to do.

PhD courses are more like apprenticeship than learning. The point of a PhD course is to help the PhD students take the first steps towards being a researcher. Most importantly, they should switch their mindset from reading books/papers in order to learn to reading papers critically. Therefore, when you teach PhD students a model or a concept, one cannot stop at teaching it to them and saying "this is the right way to do it and the right way to think about it", though one should definitely do it as a starting point. But in addition to that, one should take care pointing out the strengths and weaknesses of the model/concept and one should show how to use the model/concept to critique existing work.

For example, if you teach Conditional CAPM to undergrads/MBAs, you should explain why changes in betas are important, and teach them how to estimate Conditional CAPM and how to interpret the output. Pointing out some limitations of Conditional CAPM may also be appropriate, depending on the time constraints. You should do all that when you teach Conditional CAPM to PhDs. But in addition to that, you have to take a good paper that uses Conditional CAPM and go under the hood, pointing out where the signs in the equation for the beta are wrong, or where the magnitude of the slopes in this equation is off, or pointing out the implausibly high estimate of the risk-free rate in a cross-sectional regression. etc. The last part, to me, is the most important part of the PhD education.

In my PhD course, I do three things I think are crucial for a PhD course. First, I devote significant time during the lecture to "going under the hood" discussed above. Effectively, I try to present the papers from the reading list in the conference format, by first putting on the author's hat and then putting on the discussant's hat.

Second, I require the students to present several papers from the reading list themselves. The final goal is to make their presentations similar to conference discussions (with a longer summary part for educational purposes). In addition to helping the students develop the skills of an effective discussant, which is a good thing in its own right, I think this experience will also make them better researchers and will help them with switching their mindset from passive learning to critical reading.

Third, I aim at giving the students hands-on experience with empirical research by assigning the homework that requires the use of the WRDS databases and SAS programming. I start with easy things, like asking the students to perform single sorts, to value-weight portfolio returns and to compute the alphas of decile portfolios. I then gradually increase the difficulty and introduce new databases, one per homework, with the final goal of bringing the students to the level at which they can reproduce the main results of a technically simple empirical paper. The culmination of this part of the course is the empirical project of the student's choice, where each of the students should develop a simple asset-pricing hypothesis and perform a few empirical tests of this hypothesis using the real data, thus producing a mini-paper or a research proposal with preliminary results.

## 8 FYOS 1001 "Trading and Risks"

The course is a one credit hour seminar for freshmen, taken in their first semester at UGA. The main goal is to introduce the freshmen, who normally have some background in economics, but little background in finance, to what it is like to be a finance major and what finance department (including both students and professors) does. I taught the course in Spring 2013, Fall 2013, and Fall 2014.

My goal in teaching this course is to provide students with some basic information about financial markets that is likely to be helpful to them in making their own investment decisions. We discuss basic financial instruments and their risk measures, retirement plans and taxation, several popular trading strategies and their refinements, market efficiency and its limitations, and ways to gauge the magnitude of trading costs. For a fast-paced ten-week course that meets once a week, it is a rich and exciting program.

The main challenge of the course is making the useful material above easily accessable to motivated students with little finance background, given the very limited time for setting up the scene and teaching the basics. The feedback I received from the students shows that I have been successful in this effort.

One important learning tool in the course is the use of the StockTrak simulation trading environment. The students receive the chance of implementing the suggested trading strategies (using supplied directions) and trying out their own strategies using real-time data. The students are also excited about the tournament that rewarded the best performers and trade actively in order to win.

## 9 Representative Comments from Student Evaluations

#### 9.1 On the New Trading Strategies Course

"This course was great overall and one of my favorites at UGA. It was intellectually challenging, which I enjoyed."

"The course presented a great deal of new material that I had never seen before. It was unlike many other classes I have taken in the Finance department."

"The course is like no other course I have taken at UGA. It is a great opportunity to learn about trading strategies and I really enjoyed the topics."

"It forced me to think in ways that I had never done before."

"Wow! This course was incredibly challenging and packed with information, but it was also unbelievably interesting. The subject matter was deep. I am shocked at how much I learned"

"This was for sure one of my favorite courses in Terry. The material can get dry at times, but it is actually applicable in the real world. Once you get used to working with this kind of data your results are rewarding. The Stocktrak projects are definitely the way to go. I learned much more from having to figure each project out than I ever would have studying for an exam."

"The book was excellent. It vastly improved my knowledge of the topics he covered in

class and having a chapter dedicated to every project was very helpful."

"The book you have written is one of the clearest and easiest to follow pieces of text I have read while at UGA"

#### 9.2 Comments from Undergraduate Students

"Dr. Barinov is my favorite teacher at the University of Georgia. His knowledge for the subject is immense, and he is always willing to give added help outside of class if the new material is difficult. Both of the classes I've taken with Dr. Barinov have been absolutely on point, and I have learned more from his two classes than just about all the others combined. That is not to disrespect the other teachers or courses. It is simply a complement to the amount of information I have learned from Dr. Barinov. I would suggest that every Terry College student take at least one course from him before they graduate."

"Great instructor! Very approachable and accessible. I actually dropped a class next semester in order to take his course in anomalies which I would have not done if he weren't teaching the course"

"Professor Barinov is a great professor. First, he can blow you away with his obviously strong grasp on the subject matter and research methods: an understatement to say the least. Second, his interest in what he is teaching is obvious. Third, Professor Barinov is always extremely helpful and willing to help you with anything you don't understand. He really covers and enormous amount of ground in this class, and I am shocked at how much research methodology and knowledge I gained in this one class."

"Professor Barinov is a really smart guy and you can tell he knows his material inside out. He was always there to help the students when needed."

"The instructor was awesome. He was well prepared, very knowledgeable, funny (if you pay attention), dedicated to teaching, etc. I enjoyed attending his class far more than any other course I took this semester" "Dr. Barinov went to great measures to make sure the course was well structured and we had the necessary material available. He was always available after class and in office hours for any questions or concern we had. I wish I wasn't graduating so I could take another class with him. Very knowledgeable A+ instructor!"

#### 9.3 Comments from PhD Students

"Barinov is one of the best professors in Terry. He is a really good teacher and researcher. He also has a funny sense of humor when criticizing or analyzing papers. I have never had a professor in a graduate course put so much effort into solutions, office hours, and feedback about performance. Barinov has little room for improvement as an instructor. He's a better teacher then many tenured professors I've encountered."

"This guy is in the top 3 of professors I have had in Terry College. This guy enjoys his job and bends over backwards to help you if you work hard and ask him questions. I'm an Econ student so I always had "stupid" finance questions to ask, but he encourages class participation and always answered my questions. His class was worth the effort."

#### 10 Advising and Mentoring Students

I has been on the thesis committee of one graduate student (Snow Han, now in her 5th year) and coauthored part of the dissertation of another graduate student (Shawn Park, graduated in Summer 2014).

I have written letters of recommendation for about a dozen of UGA graduates that helped them place at graduate programs at UGA Law School, GATech Financial Engineering program, and Cass Business School (City University of London) Real Estate program, among others. Most recently, my recommendation helped a student to get an internship at the US Senate Committee of Finance.