

# Financial Research Methodology

FINA 5990 (Call #90-665) - Summer 2009  
Terry College of Business, University of Georgia  
Monday-Friday, 1:00-3:15 PM, Sanford 109  
*[Version: 6/2/09]*

## Instructor

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## Course Description

The databases and empirical methodologies used in performing financial research. Event study and regression methodologies in corporate finance research and investment-oriented methodologies such as the Fama-MacBeth procedure. Students gain experience in presentation of research and in refereeing papers.

## Course Material

- *Using SAS in Financial Research*, by Juha-Pekka Kallunki, John Broussard, and Ekkehart Boehmer (ISBN:1-59047-039-7), SAS Press.
- *The Little SAS Book: A Primer*, by Lora Delwich and Susan Slaughter (ISBN:1-59047-333-7), SAS Press.

## eLearning Commons

The new eLearning Commons system will be used for posting assignments, solutions, and course grades. Please familiarize yourself with it.

## Class Attendance

The summer class is definitely not a “break.” The material to be covered is ambitious in scope and the pace will be fairly swift. We will generally not meet on Fridays; the faculty and I expect you to devote a generous amount of time to independent work on the projects and assignments from the course. It would be wise not to schedule any vacation time during this course.

## Office Hours/Visits

My office hours will be Monday to Thursday from 3:30-4:45pm. I encourage you to make use of this time if you have any questions concerning the class.

## **Course Objectives**

The main objective of this course is to equip students with the basic technical skills needed to carry out empirical research in financial economics. To accomplish this, the course introduces students to databases and programming techniques that are frequently used in financial research.

Databases that will be covered in the course include:

- CRSP - stock price data
- COMPUSTAT - firm financial statement data
- IBES - analysts' estimates
- SDC - new issues, mergers and acquisitions, private equity
- TAQ - intraday transactions data (trades and quotes)
- DATASTREAM - worldwide financial database
- OPTIONMETRICS - historical price and implied volatility data for the US equity and index options markets

In order to have access to CRSP, COMPUSTAT etc., you will need to have a WRDS account. If you do not currently have a WRDS account, please go to: [<http://wrds.wharton.upenn.edu>] and set up an account under your name immediately.

The course is designed to enable students to obtain a working knowledge of SAS sufficient to extract and manipulate data sets that are typically encountered in financial research. Students will use such basic procedures as PROC REG, PROC SQL etc., as well as more advanced techniques like macros. The course will also cover commonly used empirical methodologies like event studies, regressions and matching procedures.

The course is also expected to provide students with a deeper understanding of what an academic job entails. Thus students will be expected to complete a number of referee reports and there will be lectures on research by faculty. There will also be lectures on the effective presentation of research results and papers (e.g. using word processing tools like LATEX).

### **Course Assignments/Grade Breakdown**

I may elect to slightly relax these breakdowns, at my discretion, after the final course numeric scores are determined but I will not make them more stringent.

Programming Assignments	30%
Paper Summaries and Presentations	15%
Referee Reports	15%
Paper Replications	40%

### **Programming Assignments (30%)**

There will be six programming assignments each worth 5%.

### **Paper Summaries and Presentations (15%)**

There will be three paper summaries and at least one paper presentation for each student during the course.

### **Referee Reports (15%)**

There will be two referee reports due each worth 7.5%. The reports will be done in small groups of 2 or 3.

### **Paper Replications (40%)**

There will be no final exam in this class. Instead the final will involve limited replications of published papers: Chen, Roll, and Ross (1986), Ritter (1991), Womack (1996).

### **Academic Honesty**

All academic work must meet the standards contained in “A Culture of Honesty.” You can find the policy at: [<http://www.uga.edu/ovpi/honesty/ah.pdf>]. All students are responsible to inform themselves about those standards before performing any academic work. Unless otherwise specified, I expect all work on projects and assignments to be your own. While I strongly encourage open and frank discussion in class, and collaboration on in-class activities, all other assigned work must be done individually.

### Tentative Class Schedule

Date	Class Activities	Assignment Due
<b><u>Week 1</u></b>		
June 15 (Mon)	Introduction to WRDS databases. Introduction to UNIX, SSH and the CHIEF system.	
June 16 (Tue)	Introduction to SAS.	
June 17 (Wed)	Introduction to SAS (cont'd). Using SAS to pull CRSP and COMPUSTAT data.	#1 Posted
June 18 (Thu)	Using SAS to pull CRSP and COMPUSTAT data (cont'd). Introduction to the IBES database (recommendations and estimates)	
<b><u>Week 2</u></b>		
June 22 (Mon)	Using SAS to pull IBES data.	#1 Due, #2 Posted
June 23 (Tue)	Introduction to DATASTREAM. Meet in the Instruction Lab on the first floor of the Main Library.	
June 24 (Wed)	Short-Run Event Studies: discussion of methodologies and sample SAS programs. Papers to be discussed/presented include: Brown and Warner (1985), Barber and Lyon (1996), MacKinlay (1997), and Boehmer, Musumeci, and Poulsen (1991)	Summary #1 Due
June 25 (Thu)	Introduction to SDC (New Issues Database)	#2 Due, #3 Posted

### Tentative Class Schedule (cont'd)

Date	Class Activities	Assignment Due
<b>Week 3</b>		
June 29 (Mon)	Discussion of the impact of database problems on empirical studies. Papers to be discussed include Kahle and Walkling (1996) and Shumway (1997). Discuss paper replication assignment. Some advanced SAS and UNIX programming techniques.	Summary #2 Due
June 30 (Tue)	Regressions, descriptive statistics, and matching procedures in SAS. Introduction to DATASTREAM.	#3 Due, #4 Posted
July 1 (Wed)	Long-Run Event studies: discussion of methodologies and sample SAS programs. Papers to be discussed/presented include: Barber and Lyon (1997), Barber, Lyon, and Tsai (1999), Mitchell and Stafford (2000), and Loughran and Ritter (2000).	Summary #3 Due
July 2 (Thu)	Regressions, descriptive statistics, and matching procedures in SAS (cont'd).	#4 Due, #5 Posted
<b>Week 4</b>		
July 6 (Mon)	Using macros in SAS.	
July 7 (Tue)	Introduction to Latex	#5 Due, #6 Posted
July 8 (Wed)	Introduction to Latex (cont'd). Brief Introduction to Beamer. Discussion of library resources, such as Moody's Manuals, S&P Stock Guides, etc.	
July 9 (Thu)	Final review of material covered over the semester.	#6 Due
July 10 (Fri)	No Class	Replication Due by 5pm

## References

- Barber, B.M., and J.D. Lyon, 1996, Detecting abnormal operating performance: The empirical power and specification of test statistics, *Journal of financial Economics* 41, 359–399.
- , 1997, Detecting long-run abnormal stock returns: The empirical power and specification of test statistics, *Journal of financial economics* 43, 341–372.
- , and C.L. Tsai, 1999, Improved methods for tests of long-run abnormal stock returns, *Journal of Finance* pp. 165–201.
- Boehmer, E., J. Musumeci, and A.B. Poulsen, 1991, Event-study methodology under conditions of event-induced variance, *Journal of Financial Economics* 30, 253–272.
- Brown, S.J., and J. Warner, 1985, Using daily stock returns, *Journal of financial economics* 14, 3–31.
- Chen, N.F., R. Roll, and S.A. Ross, 1986, Economic forces and the stock market, *Journal of Business* 59, 383.
- Kahle, K.M., and R.A. Walkling, 1996, The impact of industry classifications on financial research, *Journal of Financial and Quantitative Analysis* pp. 309–335.
- Loughran, T., and J.R. Ritter, 2000, Uniformly least powerful tests of market efficiency, *Journal of Financial Economics* 55, 361–389.
- MacKinlay, A.C., 1997, Event studies in economics and finance, *Journal of Economic Literature* pp. 13–39.
- Mitchell, M.L., and E. Stafford, 2000, Managerial Decisions and Long-Term Stock Price Performance, *The Journal of Business* 73, 287–329.
- Ritter, J.R., 1991, The long-run performance of initial public offerings, *Journal of Finance* pp. 3–27.
- Shumway, T., 1997, The delisting bias in CRSP data, *Journal of Finance* pp. 327–340.
- Womack, K.L., 1996, Do brokerage analysts' recommendations have investment value?, *Journal of Finance* pp. 137–167.