FIN597: Special Topics – Empirical Asset Pricing Methods

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Class Meeting Day & Time
   Section 003 W, 9:00am - 12:00pm

Class Location:
   Business Building 003

Course Description & Goals

This is a Ph.D.-level course in empirical asset pricing. The course will focus on understanding anomalies in the cross-section of stock returns. The course has four main goals:

1. You will become familiar with classic and contemporary papers in the anomaly literature. I will provide you with a comprehensive reading list that covers the most relevant papers for each of the topics discussed. I do not expect you to read or know all of the papers in the reading list (see the requirements below), but hopefully it would be a good reference for you.

2. You will get a good grasp of the main methods used in this literature. We'll be doing a lot of coding and data work. I will provide you with plenty of resources, but it will actually take some time for you to get familiar with those. You are free to use any programming language you want, but all of my code is in MATLAB, so that's what I'll give you.

3. The course will solidify your ability to understand, dissect, and (constructively) critique academic research. The referee reports, presentations, and discussions will serve that purpose.

4. The course will (ideally) get you started on a research agenda if you don't have one already. I expect you to submit an academic-style paper at the end of the term, which in a best-case scenario will turn into a paper you will use as part of your dissertation.

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Course Materials

- **Optional Textbook(s)**: I will assign very few specific readings, but if you are interested in empirical asset pricing you should own the following two texts:

  The Econometrics of Financial Markets by John Y. Campbell, Andrew W. Lo, A. Craig MacKinlay

  Asset Pricing by John Cochrane

- **Readings**: Readings will mostly consist of academic research articles. They will be posted on CANVAS, although you should be able to find all of them yourself.

Course Requirements

The course will be quite involved and will require a significant amount of work every week.

1. Required papers & weekly quizzes.

Each week there will be papers assigned as required reading. You will find those on the reading list. As I'll update the list as we go, be sure to check the reading list frequently. I commit to finalizing the required readings **a week in advance**.

At the beginning of each class we will take a short quiz. The questions will be based on the assigned papers for the class. This quiz will ensure that everyone reads the papers and comes prepared to participate in the class discussions. The questions will not ask about excruciating details of the papers, but you should know the main questions, the main results, how the tests were conducted, etc.

2. Coding assignments

Every week starting week 2 you will also have a coding assignment due before class. I will provide access to a GitHub repository of MATLAB code. The "MATLAB package" downloads, stores, and organizes for you the merged CRSP/COMPUSTAT data used for most of the anomaly research. Once set up, which I'll demo for you in the first week, you should be in a position to replicate anomaly results using basic CRSP/COMPUSTAT in minutes.

The goal of these coding assignments is to get you comfortable using the package and understand the main results and tests in the anomaly literature. This package is for use in your coursework and your own research. **Do not share the package without my explicit approval as it is not public yet**. You don't have to go crazy on the write-ups. I'm looking for a few tables (with detailed captions) for each question and a few sentences describing them, although you'd need to submit your code too.

3. Presentations and Discussions

At the end of each class, we will have a conference-style presentation and discussion. For each week starting with the second one, I've chosen a paper that has appeared on the program of at least one of the top conferences in the past year (AFA, WFA, EFA, Cavalcade, etc.). We have 6 lectures and 6 people attending the class, so everyone has to do one presentation and one discussion. The presentation format will follow the AFA with 15-minute presentation, 10-minute discussion, and 5-minute Q&A. The point here will be to understand the papers, but also to improve your presentation and discussion skills.

The presentation should be short and to the point. You have 15 minutes to convince the audience that your paper is worth reading. Forget about literature review or wasting too much time on the motivation, describing the usual data sources, etc. Get as quickly as possible into the main results and have a slide on everything that is secondary at the end.

Read Lasse Pedersen's guide about the discussions. They should serve you, and make you look like a knowledgeable person that is genuinely trying to improve the quality of the paper and help the authors. If you could place it in the literature in a way that is different from the paper, that is usually very helpful to the audience. Focus on one or two major comments where there is either something obviously wrong with the analysis or an opportunity to improve the paper significantly. Have embarrassing comments or minor points in the backup, which you can send the authors after the conference.

I will send you a google document to sign up for one presentation and one discussion. Obviously you cannot present and discuss the same paper. Please, watch out for it in your inbox and sign up. First come, first serve. If you don't sign up by the specified deadline in my email, I'll sign you up randomly.

4. Referee reports

You would also need to write referee reports on two of the six papers that will be presented in the end-of-class AFA-style presentations. You are free to choose to write the reports on the two papers you are presenting or discussing, although I encourage you to write referee reports on different papers, so that you force yourself to read and think critically of papers being presented at top conferences.

Each of the reports should be accompanied by a decision recommendation memo to the "editor". The memo should explicitly state your recommendation (accept, revise & resubmit, reject). It should place the paper in the literature and succinctly comment on the contribution and research design/inferential problems. I will provide you with an example for both of these, which you can use as a template.

5. Paper

I expect you to submit a polished, academic-style paper. It will be due three days before I need to submit the final grades. I **do not** expect you to come up with an original idea or have a paper ready for submission to a journal by the end of the semester. The assignment's goal is for you to demonstrate that you can ask a research question, conduct empirical analysis related to the question, and put together an academic research paper. You can work either alone or with a partner.

The paper needs to be on a topic in the cross-section of stock returns. It could be a minor extension of a known anomaly result, proposition of an explanation for a puzzling anomaly, or (ideally) finding a new result or helping us understand the economic forces underlying a group of anomalies or the entire zoo better.

The paper should have the following structure (taken from Toni Whited's syllabus in a PhD class I took at Rochester):
-   a title page with abstract
-   an introduction with motivation and intuition
    o   On page one, you should convey four point:
        ▪   What is the question?
        ▪   What do you find?
        ▪   How did you find it?
        ▪   Why is it important?
    o   You can bleed over a couple of inches onto page two, but no more.
-   a brief literature review (can be integrated into other parts of the paper)
-   a discussion of the data
-   methodology
-   empirical model
-   the results
-   conclusion

Grading

Your final grade for the class will be determined based on the following breakdown:

Assignment	Percentage
Quizzes	15
Presentation & discussion	10
Referee reports	15
Coding assignments	30
Paper	30

The paper and the referee reports will be graded on a letter-based grading scheme, while everything else will be graded on a √+ (100%), √ (80%), √- (60%) basis.

Tentative Course Outline

Week 1: March 16
    Introduction; Logistics; MATLAB Package Demo;

Week 2: March 23
    MATLAB Q&A; Cross-section of stock returns: CAPM to FF3;

Week 3: March 30
    Behavioral finance: technical predictors (anomalies based on past performance) & limited
    attention anomalies

Week 4: April 6
    Investment & Profitability; Factor wars

Week 5: April 13
    Liquidity and/or Macro/FOMC uncertainty

Week 6: April 20
    Transaction Costs

Week 7: April 27
    Skeptical evaluations and making sense of the anomaly zoo

Penn State Values

At the core of the University are the Penn State Values: https://universityethics.psu.edu/penn-state-values . The Values are our shared ideals about how people should act toward one another, the standards to which we hold ourselves, and those beliefs we find important. While aspirational in nature, the Penn State Values articulate our ethical principles and should guide our actions and decisions as members of the Penn State community, including in this course.

Smeal Honor Code

The Smeal College of Business Honor Code states:
> We, the Smeal College of Business Community, aspire to the highest ethical standards and will hold each other accountable to them. We will not engage in any action that is improper or that creates the appearance of impropriety in our academic lives, and we intend to hold to this standard in our future careers.

Academic Integrity

According to the Penn State Principles and University Code of Conduct:

> Academic integrity is a basic guiding principle for all academic activity at Penn State University, allowing the pursuit of scholarly activity in an open, honest, and responsible manner. According to the University's Code of Conduct, you must neither engage in nor tolerate academic dishonesty. This includes, but is not limited to cheating, plagiarism, fabrication of information or citations, facilitating acts of academic dishonesty by others, unauthorized possession of examinations, submitting work of another person, or work previously used in another course without informing the instructor, or tampering with the academic work of other students.

Any violation of academic integrity will be investigated and, where warranted, corrective academic and/or disciplinary action will be taken. For every incident where a penalty is assessed, an Academic Integrity Incident Report form must be filed. The form can be found on the Smeal College Honor and Integrity website: http://ugstudents.smeal.psu.edu/honor. This form is to be used for undergraduate courses. The report must be signed and dated by both the instructor and the student, and then submitted to Jeff Sharp, Associate Dean for Undergraduate Education, 202 Business Building.

University Policy G-9

Once a student has been informed that academic misconduct is suspected, the student may not drop the course during the adjudication process. The Dean of the College (UP) and/or the Chancellor (campuses) or his or her representative is responsible for notifying the Office of the University Registrar when academic misconduct is suspected in a course. Any drop or withdrawal from the course during this time will be reversed. A student who has received an academic sanction as a result of a violation of academic integrity may not drop or withdraw from the course at any time. These drop actions include regular drop, late drop, withdrawal, retroactive late drop and retroactive

withdrawal. Any such drop action of the course will be reversed. This drop policy may be superseded in exceptional circumstances (i.e. trauma drop). In these cases, the Office of Student Conduct or the Student Conduct designee will confer with the Dean of the College (UP) or the Chancellor (campuses) or his or her representative to determine if the drop is warranted.

University Policy G-9: http://undergrad.psu.edu/aappm/G-9-academic-integrity.html

Plagiarism/Copying

All work you submit for grading or academic credit is designed to reflect your knowledge and skill related to the course subject matter. Therefore, unless otherwise indicated, all work submitted is to be done on an individual basis. This includes but is not limited to all exams, quizzes, homework, papers, written assignments, and presentations.

Plagiarism is claiming work as your own that you have copied from another person, whether that other person knows about it or not. This includes copying from web sites without proper source citation and using homework or papers prepared by current or past students whether working as an individual or working in a group / team.

Disagreements or Complaints relating to Penn State Coursework, the Instructor or a Fellow Student

In the event you have a class related disagreement or complaint with the instructor or a fellow student, you are advised to address the matter with the course instructor privately. If the matter remains unresolved, you may contact the department chairperson of the departmental unit offering the course. Only after these steps have been followed may the Dean's office be able to engage its authority to resolve the matter. Each party is encouraged to resolve the dispute with those immediately   involved.

Affirmative Action and Sexual Harassment.

The Pennsylvania State University is committed to a policy where all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by Commonwealth or Federal authorities. Penn State does not discriminate against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, gender, sexual orientation, or veteran status. Related inquiries should be directed to the Affirmative Action Office, 328 Boucke Building.

Students with Disabilities

Penn State and the Smeal College of Business welcomes students with disabilities to all of its classes, programs and events. Student Disability Resources in Room 116 Boucke Building provides a vast array of services for students with disabilities according to mandates under Title II of the ADA amendments Act of 2008 and Section 504 of the Rehabilitation Act of 1973. For more

information or to meet with a service provider from Student Disability Resources, contact them at (814) 863-1807 (V/TTY) or visit their website at: http://equity.psu.edu/sdr

In order to receive consideration for reasonable accommodations, you must contact the appropriate disability services office at the campus enrolled, participate in an intake interview, and provide documentation: http://equity.psu.edu/sdr/applying-for-services If the documentation supports your request for reasonable accommodations, the Student Disability Resources office will provide you with an accommodation letter. Please share this letter with your instructors and discuss the accommodations with them as early in the course as possible. Adjustments will be made based on the recommendations in the accommodation letter. You must follow this process for every semester that you request accommodations.