COURSE DESCRIPTION

This course aims to provide an introduction to modern finance theory for first and second year PhD students who are interested in financial economics. While theory is the main focus, relevant empirical methods will be introduced and more empirical evidence will be discussed if time permits.

COURSE MATERIALS

We do not closely follow any particular textbook, but the following are the recommended ones we will frequently refer to:


Other materials:

- Check Canvas (canvas.rutgers.edu) and your official Rutgers email account regularly. You must read the required readings before each lecture.

LEARNING GOALS AND OBJECTIVES

- This course is designed for Ph.D. students to build a foundation for their study of higher-level courses in finance.
PREREQUISITES

- Undergraduate level introductory finance
- Undergraduate level calculus, linear algebra and real analysis
- Graduate level microeconomics (may be taken concurrently)
- Graduate level statistics/econometrics (may be taken concurrently)
- Statistical programming language such as Matlab, Stata, SAS, and R (may be learned concurrently)

ACADEMIC INTEGRITY

I do NOT tolerate cheating. Students are responsible for understanding the RU Academic Integrity Policy (http://academicintegrity.rutgers.edu/)

I will strongly enforce this Policy and pursue all violations. On all examinations and assignments, students must sign the RU Honor Pledge, which states, “On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment.” I will screen all written assignments through SafeAssign or Turnitin, plagiarism detection services that compare the work against a large database of past work. Don’t let cheating destroy your hard-earned opportunity to learn. See business.rutgers.edu/ai for more details.

ATTENDANCE AND PREPARATION POLICY

- Attendance is essential for passing the course. If you are to be absent, please report your absence in advance by email. If your absence is due to religious observance, a Rutgers-approved activity, illness, or family emergency/death and you seek makeup work, please send me the full details and supporting documentation as well.

CLASSROOM CONDUCT

- Note take is necessary. Please remember to bring a paper notebook.
- Keep phones and laptops out of sight and turned off. You may not use them as calculator during exam.

EXAM AND GRADING POLICIES
The following components make up your course grade:

1) **Assignments (20%)**: 
I will assign homework from time to time. They are to be completed *individually* and be handed in at or before the beginning of class on the day they are due. *I will not accept late or joint homework.*

2) **Exam (30%)**: 
There will be one examination. The time and format of the exam is still TBA.

3) **Referee Report (10%)**
There will be one referee report due. I will provide guidance for writing the referee report.

4) **Research Proposal (30%)**
The final output of the class is a research proposal. In the proposal, you should come up with a clear research question, connect it to the literature, and outline your research plan. The proposal should be no longer than 10 pages, not including tables and figures. Grading will be based on originality of the question, the feasibility of the execution and the quality of the writing. I will provide guidance for writing the proposal. You will submit the proposal by and present it during the last class. Failure to submit it by () will result in 0pts. *I will not grant extensions.*

5) **Pre-Class Preparation, Attendance and Participation (10%)**
I expect you to finish all the required readings before each class, attend all the lectures and actively contribute to the classroom. An average student would expect to allocate at least 15 hours per week outside of class on required readings, assignments, reviewing lectures, and working on the proposal. Occasionally, I may resort to cold calling or surprise quizzes to monitor your pre-class preparation.

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**TOPICS COVERED AND REQUIRED PRE-CLASS READINGS (tentative and incomplete, subject to change)**

1. Expected Utility and Risk Aversion
   - P, Chapter 1

2. Mean Variance Analysis and Portfolio Frontier
   - P, Chapter 2
3. Capital Asset Pricing Model

- P, Chapter 3

4. No Arbitrage and the Fundamental Theory of Asset Pricing

- P, Chapter 4
- C, Chapters 1-6

5. Factor Model, APT and Other Applications of No Arbitrage

- CLM, Chapter 6

6. CAPM, APT Tests and Empirical Evidence

- CLM, Chapter 5
- Econometric Review

7. Continuous Time

- C, Appendix

8. Behavior Finance


9. Predictability


• Additional Readings:

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**SUPPORT SERVICES**


[Rutgers University-New Brunswick ODS phone (848)445-6800 or email dsoffice@echo.rutgers.edu]

[Rutgers University-Newark ODS phone (973)353-5375 or email ods@newark.rutgers.edu]

If you are *pregnant*, the Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy.

[Rutgers University-New Brunswick Title IX Coordinator phone (848)932-8200 or email jackie.moran@rutgers.edu]

[Rutgers University-Newark Office of Title IX and ADA Compliance phone (973)353-1906 or email TitleIX@newark.rutgers.edu]

If you seek *religious accommodations*, the Office of the Dean of Students is available to verify absences for religious observance, as needed.
If you have experienced any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking, the Office for Violence Prevention and Victim Assistance provides help and support. More information can be found at http://vpva.rutgers.edu/.

[Rutgers University-New Brunswick incident report link: http://studentconduct.rutgers.edu/concern/. You may contact the Office for Violence Prevention and Victim Assistance at (848)932-1181]

[Rutgers University-Newark incident report link: https://cm.maxient.com/reportingform.php?RutgersUniv&layout_id=7 . You may also contact the Office of Title IX and ADA Compliance at (973)353-1906 or email at TitleIX@newark.rutgers.edu. If you wish to speak with a staff member who is confidential and does not have a reporting responsibility, you may contact the Office for Violence Prevention and Victim Assistance at (973)353-1918 or email run.vpva@rutgers.edu]

If students who have experienced a temporary condition or injury that is adversely affecting their ability to fully participate, you should submit a request via https://temporaryconditions.rutgers.edu .

If you are a military veteran or are on active military duty, you can obtain support through the Office of Veteran and Military Programs and Services. http://veterans.rutgers.edu/ 

If you are in need of mental health services, please use our readily available services.

[Rutgers University-Newark Counseling Center: http://counseling.newark.rutgers.edu/]

[Rutgers Counseling and Psychological Services–New Brunswick: http://rhscaps.rutgers.edu/]

If you are in need of physical health services, please use our readily available services.

[Rutgers Health Services – Newark: http://health.newark.rutgers.edu/]

[Rutgers Health Services – New Brunswick: http://health.rutgers.edu/]
If you are in need of legal services, please use our readily available services: http://rusls.rutgers.edu/

Students experiencing difficulty in courses due to *English as a second language (ESL)* should contact the Program in American Language Studies for supports.

[Rutgers–Newark: PALS@newark.rutgers.edu]

[Rutgers–New Brunswick: eslpals@english.rutgers.edu]

If you are in need of additional academic assistance, please use our readily available services.

[Rutgers University-Newark Learning Center: http://www.ncas.rutgers.edu/rlc]

[Rutgers University-Newark Writing Center: http://www.ncas.rutgers.edu/writingcenter]

[Rutgers University-New Brunswick Learning Center: https://rlc.rutgers.edu/]

[Optional items that many faculty include:

- Students must sign, date, and return a statement declaring that they understand the RU Academic Integrity Policy.
- Students must sign, date, and return a statement declaring that they understand this syllabus.]