

Research Methodology Session F Module I, 2025-2026

Course Information

Instructor: Fangyuan Ma (马芳原)

Office: PHBS Building, Room 705 Phone: 86-755-2603-4885

Email: fangyuanma@phbs.pku.edu.cn

Office Hour: Monday 1PM-3PM, Tuesday 10AM-12PM, or by appointment

Teaching Assistant: Kexin Li (李珂欣)

Email: <u>2201111306@stu.pku.edu.cn</u> Office: PHBS Building, Room 527

Classes:

Lectures: Monday, 10:30-12:20

Venue: TBA

Course Website:

PHBS Course Management System (CMS): cms.phbs.pku.edu.cn; login through yun.phbs.pku.edu.cn. Search for "Research Methodology-2025-26M1-FYM" and enrol with the code of "RM25-26M1FYM".

1. Course Description

1.1 Context

Course overview:

This course will equip students with essential tools and a solid understanding of cross-sectional and panel data empirical methods applicable to *finance* research. Students will be introduced to a diverse array of techniques commonly used in *empirical* studies, fostering their ability to apply these methods effectively.

Upon completing this course, students will be able to:

- Understand causality and identify causal effects.
- Interpret the results of standard regression methods (e.g., OLS) and recognize their limitations.
- Explore commonly used techniques to address OLS limitations, such as instrumental variables and difference-in-differences.
- Evaluate the advantages and disadvantages of various empirical methods.

Please note that this course will NOT cover:

- Theoretical or modeling research methodologies.
- Time series methods.
- The derivation of econometric or statistical properties of various estimators.

• Programming or coding details.

The objective of this course is to assist students in preparing their graduation thesis, particularly in selecting the appropriate empirical methods. To achieve this goal, the course will consist of three major components:

- Lectures: These sessions will introduce key concepts and knowledge related to empirical research methods.
- Group Presentations: Students will present classical empirical studies in the format similar to thesis defenses. This will allow them to analyze and discuss the research, fostering critical engagement with current empirical work.
- Individual Research Proposals: Each student will write a proposal outlining a potential empirical research idea, providing an opportunity to develop and articulate their research approach.

Prerequisites:

This course presumes that students have taken master-level courses in corporate finance and econometrics.

1.2 Textbooks and Reading Materials

Course materials including reference notes and paper assignments will be posted on the course website.

Reference books:

Mostly Harmless Econometrics, by Angrist, Joshua D., and Jorn-Steffen Pischke. 2009. Princeton University Press, New Jersey. [Angrist-Pischke]

Econometric Analysis of Cross-Section and Panel Data, by Wooldridge, Jeffrey M. 2010. MIT Press, Massachusetts, Second Edition. [Wooldridge]

Econometric Analysis, by Greene, William H. 2011. Prentice Hall, N.J., Seventh Edition. [Greene] Roberts, Michael R., and Toni M. Whited. 2011, "Endogeneity in Empirical Corporate Finance," University of Rochester, working paper, http://ssrn.com/abstract=1748604. [Roberts-Whited] Scott Cunningham, "Causal Inference: The Mixtape" https://mixtape.scunning.com/

2. Learning Outcomes

2.1 Intended Learning Outcomes

Learning Goals	Objectives	Assessment (YES with details or NO)
1. Our graduates will be effective communicators.	 1.1. Our students will produce quality business and research-oriented documents. 	YES
	 Students are able to professionally present their ideas and also logically explain and defend their argument. 	YES
Our graduates will be skilled in team work and leadership.	2.1. Students will be able to lead and participate in group for projects, discussion, and presentation.	YES
	Students will be able to apply leadership theories and related skills.	YES
3. Our graduates will be trained in ethics.	 3.1. In a case setting, students will use appropriate techniques to analyze business problems and identify the ethical aspects, provide a solution and defend it. 3.2. Our students will practice ethics in the duration of the program. 	

4. Our graduates will have a global perspective.	4.1. Students will have an international exposure.	
5. Our graduates will be skilled in problem-solving and critical	5.1. Our students will have a good understanding of fundamental theories in their fields.	YES
thinking.	5.2. Our students will be prepared to face problems in various business settings and find solutions.	YES
	5.3. Our students will demonstrate competency in critical thinking.	YES

2.2 Course specific objectives

The objective of this course is to assist students in preparing their graduation thesis, particularly in selecting the appropriate empirical methods. By providing a comprehensive understanding of various empirical techniques, the course aims to empower students to make informed decisions about their research approaches. Additionally, students will learn to critically analyze existing literature, enabling them to identify gaps and formulate relevant research questions that contribute to their field of study.

2.3 Assessment/Grading Details

The course grade will be determined by the following scheme:

Individual research proposal	40%
Group presentation	40%
Class attendance & participation	20%
Total	100%

Individual Research Proposal: Each student will develop a research proposal, ranging from 3 to 10 A4 pages, outlining a potential empirical research idea using the tools discussed in the course. The proposal should include the following components:

- <u>A Brief Motivation and Background</u>: An introduction to the topic that highlights its significance and relevance in the field.
- <u>A Clear Research Question</u>: A specific, well-defined question that the research aims to address.
- <u>Literature Review and Contribution Assessment</u>: A brief review of relevant literature, along with an evaluation of how the proposed research will contribute to the existing body of knowledge.
- <u>Empirical Design</u>: An outline of the empirical approach to be used. This should detail what an ideal empirical test for the research question would look like, identify potential challenges related to causal identification, and discuss how these challenges will be addressed through the proposed methods.
- <u>Data Availability</u>: A description of potential sources of information required for the analysis, including relevant datasets.
- Reference List: A comprehensive list of all references cited in the proposal.

Group Presentation: Students will form groups of five members. Each group will select one paper from the suggested list, read and analyze it, and then deliver a 20-minute presentation in class. The presentation should cover the following key elements:

- <u>Motivation and Background:</u> Clearly present the motivation behind the study.
- Research Question: State the main research question addressed in the paper.
- Hypothesis: Outline the hypotheses being tested.

- <u>Data Source:</u> Describe the data used in the study and its relevance.
- Empirical Design: Summarize the empirical methods employed in the research.
- Findings and Interpretations: Present the main findings and provide interpretations.
- <u>Contribution and Limitations:</u> Discuss the study's contributions to the field and any limitations identified by the authors.

While it's not necessary to cover every detail from the paper, the presentation should convey the essential points so that a coherent and complete story is told. Following the presentation, there will be a mini session for discussion and Q&A. All students are expected to read the assigned articles and prepare for an engaging discussion.

2.4 Academic Honesty and Plagiarism

It is important for a student's effort and credit to be recognized through class assessment. Credits earned for a student work due to efforts done by others are clearly unfair. Deliberate dishonesty is considered academic misconducts, which include plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct check. Misconduct check may include reproducing the assessment, providing a copy to another member of faculty, and/or communicate a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism checking service may be kept in its database for future reference purpose.

Where violation is suspected, penalties will be implemented. The penalties for academic misconduct may include: deduction of honour points, a mark of zero on the assessment, a fail grade for the whole course, and reference of the matter to the Peking University Registrar.

AI tools requirements:

Using AI tools to complete assignments or assessments without the approval of the course instructor will be regarded as an act of academic dishonesty. Depending on the severity of the situation, penalties will be implemented in accordance with the provisions of the Peking University Graduate Student Handbook.

For more information of plagiarism, please refer to PHBS Student Handbook.

3. Topics, Teaching and Assessment Schedule

Here is our tentative schedule. Please note that the schedule is subject to changes.

Date	Lecture topic	Presentations
Sep 1	Introduction	
Sep 8	Causality	
Sep 15	Linear regression, Panel data	Submit Group Membership
		Set Presentation Order
Sep 22	Instrumental Variable	
Sep 29	Natural Experiment (DID) Part I	Presentation 1 (IV)
Oct 13	Natural Experiment (DID) Part II	Presentation 2 (DID)
Oct 20	Matching and selection	Presentation 3 (DID)

Oct 27	Regression Discontinuity	Presentation 4 (Matching)
Nov 3	Application tips	Presentation 5 (RDD)

Here is the assignment of paper presentations:

Presentation 1 (IV) Please choose one of the following two papers:

Ouimet, P., Simintzi, E., & Ye, K. (2025). The impact of the opioid crisis on firm value and investment. *The Review of Financial Studies*, hhae080.

https://academic.oup.com/rfs/advance-article/doi/10.1093/rfs/hhae080/8011617

Giroud, Xavier, Holger M. Mueller, Alex Stomper, and Arne Westerkamp, 2012, "Snow and leverage," *Review of Financial Studies*, 25, 680-710.

https://academic.oup.com/rfs/article/25/3/680/1615734?login=true

Presentation 2 (DID) Please choose one of the following two papers:

Bertrand, Marianne, and Sendhil Mullainathan, 2003 "Enjoying the quiet life? Corporate governance and managerial preferences," *Journal of Political Economy*, 111(5), 1043-75.

https://www.journals.uchicago.edu/doi/full/10.1086/376950?casa_token=BS9JBUZtRQQAAAAA%3ArA1yLnF3199fs3TpGZpeDCfx2t61WeCKerhjUzSUeFOgd4vPmhBUOf_FQXCXwvG6oEU7H0ZhHcBL

Gormley, T. A., & Matsa, D. A. (2011). Growing out of trouble? Corporate responses to liability risk. *The Review of Financial Studies*, 24(8), 2781-2821.

https://academic.oup.com/rfs/article/24/8/2781/1572102?login=true

Presentation 3 (DID) Please choose one of the following two papers:

von Meyerinck, F., Romer, J., & Schmid, M. (2025). CEO turnover and director reputation. *Journal of Financial Economics*, 163, 103971.

https://www.sciencedirect.com/science/article/pii/S0304405X24001946

Krieger, J., Li, D., & Papanikolaou, D. (2022). Missing novelty in drug development. *The Review of Financial Studies*, 35(2), 636-679.

https://academic.oup.com/rfs/article/35/2/636/6178014?login=true

Presentation 4 (Matching) Please choose one of the following two papers:

Almeida, H., Cunha, I., Ferreira, M. A., & Restrepo, F. (2017). The real effects of credit ratings: The sovereign ceiling channel. The Journal of Finance, 72(1), 249-290.

https://onlinelibrary.wiley.com/doi/full/10.1111/jofi.12434?casa_token=ToAkmwR1KzIAAAAA%3AsTW1CsVSwz0xK-ERKM8OLiUTex759aRVcULzk3qCL99DjlFaAvD87KwxRa88J2tuIDUvZsPaA-KJBOmZ

Guo, F., Liu, T., & Tu, D. (2023). Neglected peers in merger valuations. *The Review of Financial Studies, 36*(8), 3257-3310.

https://academic.oup.com/rfs/article/36/8/3257/6984732?login=true

Presentation 5 (RDD) Please choose one of the following two papers:

Appel, Ian R., Todd A. Gormley, and Donald B. Keim, "Passive Investors, Not Passive Owners," 2016, *Journal of Financial Economics*, 121(1), 111-141.

https://www.sciencedirect.com/science/article/pii/S0304405X16300319?casa_token=d7w1mUg2a4oAAAAA:qSEU7L_nHAj5ZWivkpM1cQFa8Bh4Gtb0UHx8nmlEKQNaM-F yKy5MHtAHC4d9xQ9B8HJ8Z85Q#sec0006

Malenko, N., & Shen, Y. (2016). The role of proxy advisory firms: Evidence from a regression-discontinuity design. *The Review of Financial Studies*, *29*(12), 3394-3427.

https://academic.oup.com/rfs/article/29/12/3394/2418027?login=true

4. Miscellaneous

I will request every student to make a <u>nameplate</u> and display it to on the table in each class. This will help me remember your name and organize class discussions.

AI Policy:

You are permitted to use AI tools to enhance your group project preparation and improve your individual proposal. However, your evaluation will be based on the correct interpretation and application of the research methodology <u>covered in this course</u>, the depth and originality of your discussions, and the effort demonstrated. Please use AI tools wisely to complement, not replace, your understanding and work.