Course Outline

Course Code : RE2801
Course Title : Research Methodology in Real Estate
Semester : Semester 2, Academic Year 2023/2024
Faculty : Assistant Prof Fan Yi
Department : Real Estate
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Overview

This course teaches the skills needed for scientific research in real estate and urban studies. It focuses on the applied econometrics. Major topics includes multiple regressions, simultaneous equation models, discrete choice models, time series analysis, differences-in-differences, fixed verse random effects and panel data analysis. The issues of model selections, multicollinearity, heteroscedasticity, autocorrelation, instrumental variables and identification are introduced. It also addresses the whole research process including identifying research problem; defining research questions, objectives and significance; conducting literature review; developing research framework and research design; collecting data and performing survey; conducting qualitative or quantitative analyses; reasoning research results and writing up.

Learning Outcomes

Through this course, students will be able to:

- Understand the whole process of undertaking scientific research.
- Understand the different requirements of dissertation and academic exercise.
- Apply basic econometric analysis and understand how to develop a good research design for quantitative analysis.

Course Prerequisite(s)

DAO1704 Decision Analytics using Spreadsheets

Course Preclusion(s)

Nil

General Guide & Reading

- Booth, W.C., G.G. Colomb, J.M. Williams, J.B. Bizup, W.T. Fitz Gerald (2016) **The Craft of Research. 4th Edition**. Chicago: The University of Chicago Press.
- Wisker, G. (2018) **The Undergraduate Research Handbook. 2nd Edition**. London: Macmillan International Higher Education.
- Angrist, J. D., & Pischke, J. S. (2014). **Mastering 'metrics: The path from cause to effect**. Princeton University Press.
- Woolridge J.M. (2016) **Introductory Econometrics: A Modern Approach, 6th edition**.

Tentative Schedule & Outline

Week	Date	Topic	Activity
1	15 – 19 Jan	Introduction	
2	22 – 26 Jan	Research motivations/topic, questions, significances	
3	29 Jan – 2 Feb	Literature review; research framework and research hypotheses: cases	
4	5 – 9 Feb *CNY: 10 – 11 Feb. Following Monday is a PH.*	Design data collection; conduct descriptive statistical analysis and present findings: cases	Tutorial 1: literature review 1: online search and presentation on given questions, how to justify good vs. bad literature
5	12 – 16 Feb *12 Feb PH (see above)*	Design data analysis; interpret result and present findings: case-1	Tutorial 1: literature review 1: online search and presentation on given questions, how to justify good vs. bad literature
6	19 – 23 Feb	Design data analysis; interpret results and present findings: case-2	Tutorial 2: half focuses on literature review 2, and half focuses on research framework
	24 Feb – 3 Mar	**RECESS WEEK**	
7	4 – 9 Mar	**EXAMINATION (MID-TERM)**	
8	11 – 15 Mar	Design data analysis; interpret results and present findings: case-3	Tutorial 2: half focuses on literature review 2, and half focuses on research framework
9	18 – 22 Mar	Design data analysis; interpret results and present findings: case-4	• Tutorial 3: data collection • Mid-term test
10	25 – 29 Mar *28 Mar: NUS Well-Being Day* *29 Mar: Good Friday*	Design data analysis; interpret results and present findings: case-5	Tutorial 3: data collection
11	1 – 5 Apr	Design data analysis; interpret results and present findings: case-6	
12	8 – 12 Apr *10 Apr: Hari Raya Puasa*	Design data analysis; interpret results and present findings: case-7	Tutorial 4: empirical analysis and quantitative reasoning
13	15 – 19 Apr	Class summary and introduction to high quality research and top academic journals	Tutorial 4: empirical analysis and quantitative reasoning
	20 – 26 Apr	**READING WEEK**	
	27 Apr – 11 May	**EXAMINATION (2 WEEKS)**	

	1 May: Labour Day		

Assessment

Assessment Components	Weightage (%)
• Group Project	35
• Mid-Term Test	30
• Individual class performance and participation in Tutorials	20
• Quiz	15
Total	**100**

Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is "the practice of taking someone else's work or ideas and passing them off as one' own" (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubt, you should consult your instructor.

Additional guidance is available at:

- http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct
- http://nus.edu.sg/osa/resources/code-of-student-conduct

About me

Dr. Fan Yi is an assistant professor in the Department of Real Estate at NUS Business School. Her research interests lie in urban economics and labour economics, focusing on topics related to mobility and liveability. Specifically, she works on evaluation of responses to urban environment/policy, inter-generational and intra-generational mobility. Her work has been published at leading journals, such as *American Economic Journal: Economic Policy, Journal of Urban Economics, Journal of Economic Behavior & Organization, Journal of Regional Science, China Economic Review, Journal of Environmental Planning and Management.*

Dr. Fan has served as guest editor of Renewable & Sustainable Energy Reviews and has been ad hoc reviewers for more than 20 journals. She has been awarded NUS Business School Teaching Excellence Award and NUS Humanities and Social Sciences Faculty Research Fellowship. Dr Fan obtained her PhD from the London School of Economics and Political Science in 2015. Prior to joining NUS, she has taught in universities in Hong Kong and the United Kingdom.