

Course Syllabus

Course code		Compiled date	2024/05
Course title (Chinese)	应用经济学		
Course title (English)	Applied Economics		
Credits	4.0	Total hours	4*18=72
Instructor	Yiran Zhang	Department	School of Economics
Semester	3 rd year, 1 st term	Contact email	yiran_zhang@fudan.edu.cn
Prerequisite courses	Introduction to econometrics, macroeconomics, microeconomics		
(A) Classification of the course			
Comprehensive <input type="checkbox"/> Fundamental <input type="checkbox"/> Compulsory <input type="checkbox"/> Elective <input checked="" type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Professional advanced Course</u>			
(B) Course objectives and contents			
<p>The primary focus of this course is to apply fundamental economic analysis tools, enabling students to understand how to utilize these tools for examining important Chinese economic problems they find intriguing.</p> <p>This course primarily concentrates on the key subject that economic growth with an emphasis on productivity enhancement and innovations.</p> <p>Specifically, this course integrates theoretical concepts with big data analysis. It demonstrates how to apply these theories to manage large datasets, examine economic facts, and interpret empirical evidence. Furthermore, by exploring cutting-edge literature, this section also emphasizes the utilization of software tools such as Stata, MATLAB, Gephi, and LaTeX.</p> <p>Each subsection within this subject may encompass three categories: (1) Theoretical aspects, including the neoclassical growth model, endogenous technological change models, misallocation, and basic network analysis; (2) Dataset components, such as Chinese annual firm-level surveys, Chinese administrative registration records, patent registration data from EP, US, and CN, patent citation data, and patent transaction data; (3) Software tools, comprising Stata, Gephi, and LaTeX.</p> <p>This course aims to teach student how to put the theory in the textbook into use and then, present the interesting economics phenomenon.</p>			

(C) Recommended books

Angus Chi Ho Chu, *Advanced Macroeconomics: An Introduction for Undergraduates*. World Scientific Publishing Europe Ltd, 2020.

Aghion, Philippe, and Peter W. Howitt. *The economics of growth*. MIT press, 2008.

Mark Newman. *Networks: an introduction* (2nd edition). Oxford university press, 2018.

(D) Teaching arrangement and key points

Note: Schedule subject to change (and it most likely will). Please see course website for most up-to-date schedule.

1. Growth facts: the basic question of economic growth and development
2. Evaluation of innovation and patent

Literature:

Hall B H, Jaffe A B, Trajtenberg M. The NBER patent citation data file: Lessons, insights and methodological tools[J]. NBER working paper, 2001

Hall B H, Jaffe A, Trajtenberg M. Market value and patent citations[J]. *RAND Journal of economics*, 2005.

Abrams D, Akcigit U, Grennan J. Patent Value and Citations: Creative Destruction or Strategic Disruption?[J]. SSRN working paper, 2019.

Lerner J, Seru A. The Use and Misuse of Patent Data: Issues for Finance and Beyond[J]. *The Review of Financial Studies*, 2021.

Data:

US patent database, EP patent database, Chinese patent database

Software:

Stata: how to plot professional figure

3. Patent market

Literature:

Akcigit U, Celik M A, Greenwood J. Buy, keep, or sell: Economic growth and the market for ideas[J]. *Econometrica*, 2016, 84(3): 943-984.

Data:

US patent transaction database, Chinese patent transaction database

Software:

Latex: how to make professional slides

4. Productivity and misallocation

Literature:

Hsieh C T, Klenow P J. Misallocation and manufacturing TFP in China and India[J]. *The Quarterly journal of economics*, 2009, 124(4): 1403-1448.

Brandt L, Van Biesebroeck J, Zhang Y. Creative accounting or creative destruction? Firm-level productivity growth in Chinese manufacturing[J]. *Journal of development*

economics, 2012, 97(2): 339-351.

König M, Song Z M, Storesletten K, et al. From imitation to innovation: Where is all that Chinese R&D going?[R]. National Bureau of Economic Research, 2020.

Data:

Chinese annual firm-level surveys

5. Network analysis

Literature:

Acemoglu D, Akcigit U, Kerr W R. Innovation network[J]. Proceedings of the National Academy of Sciences, 2016, 113(41): 11483-11488.

Bai C E, Hsieh C T, Song Z M, et al. Special Deals from Special Investors: The Rise of State-Connected Private Owners in China[R]. National Bureau of Economic Research, 2020.

Data:

Chinese administrative registration records

Software:

Gephi: how to draw network graph

6. Innovated in China (innovation in China)

Literature:

Wei S J, Xie Z, Zhang X. From "Made in China" to "Innovated in China": Necessity, prospect, and challenges[J]. Journal of Economic Perspectives, 2017, 31(1): 49-70.

(E) Grading

1. One in-class presentation (45%)
2. Subject thesis (45%)
3. Class attendance (10%)

(F) A brief introduction of the instructors (200-300 words):

I am an assistant professor at the School of Economics at Fudan University starting in 2021 Fall.

My research focuses on Macroeconomics. I chiefly combine micro-level data with structural models to study various topics about innovation, economic growth and Chinese economy.

I received the P.h.D degree in economics from the Chinese University of Hong Kong in 2021.

Education:

P.h.D in Economics, The Chinese University of Hong Kong 2021

M.A. in Economics, Renmin University of China 2016

B.A. in Economics, Renmin University of China 2014

*If the course is provided by several instructors, please indicate the one responsible for the course.