

China Center for Economic Research  
National School of Development  
Peking University  
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Instructor:  
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## **Empirical Strategies**

Friday 9:00-12:00

The Small Classroom at Wanzhong Building

### Course Description

The objective of this course is to train students in empirical strategies used in economic research, with a focus on practical application of identification methods. This course will cover several identification issues. For each issue, the class will first briefly introduce the underlying theoretical problem, then detail on the empirical strategy, and finally look at some specific examples using this strategy. The empirical topics will span labor, health, education and program evaluation.

### Grading:

The course grade will depend on in-class quizzes (30%), class participation (20%) and a term paper (50%).

### Topics Covered:

1. The Problem of Identification in Economics
2. Two Simple Strategies
3. Fixed Effect and Random Effect Estimators
4. Difference-in-Difference
5. Synthetic Control Approach
6. Instrumental Variables Estimation
7. Regression Discontinuity Design
8. Propensity Score Matching
9. Quantile Regression
10. Roy Model
11. Other Important Issues (Missing Value, Research Organization, etc.)

### Course Materials:

There will be a list of articles that are related to each topic, which will be distributed over the semester.