Econometrics 2

Module 4, 2023-2024

Sultan Mehmood
smehmood@nes.ru

Course information

Course Website:

Instructor's Office Hours:

Class Time:

Room Number:

TAs:

Course description

This is a second part of the introductory econometrics sequence. The objective of the course is to familiarize students with basic concepts of econometric analysis. During the course students learn how to apply econometric models to the various kinds of cross-sectional and panel data. The participants of the course use STATA software and do practical exercises.

Course requirements, grading, and attendance policies

Students are expected to possess a solid foundation in statistics, calculus, and matrix algebra, along with having completed the econometrics-1 course. The course comprises 14 lectures and 7 seminars. The assessment will be divided into three parts, distributed across the duration of the module, each centered around distinct research papers. The objective of this course is for you to master the methods and application of the econometric techniques discussed in class. To do this, you will have three exams. The first exam accounts for 30% of the total grade and involves a **group presentation (on methods)** on an econometrics paper that builds upon methods discussed in class. The subsequent 30% segment of the exam entails another **group presentation (applications),** analyzing an applied paper through the lens of methods studied in class. Finally, the remaining 40% of the grade combined the two, is allocated to an **in-class, open-book, individual assignment (methods + applications)**. This assignment entails using one of the discussed econometric methods, applying and discussing alternative methods in the form of a referee report. The selection of the three distinct research papers will be made from a list provided by the instructor, all of which are pertinent to the subject matter of this course.

Course contents

Week 1: Regression as a Weighted Average, Introduction to Instrumental Variables

Week 2: Least Squares, Instrumental variables and Systems of Equations.
Week 3: Maximum likelihood estimation and Binary choice models.
Week 4: Multinomial choice, Ordered choice.
Week 5: Censored models. Sample selection. Statistical Inference.
Week 6: Count data. Mixed models.
Week 7: Panel and clustered data. Linear panel models. Within, between and other estimators.

Description of course methodology
A typical lecture includes a theoretical part on course material with applications. The focus will be on how these econometric method can be applied for practical applications.

Sample tasks for course evaluation

Write a short report discussing the econometric method applied in the paper "Long-run effect of dissolution of Monasteries" by James Robinson. Pay careful attention to methodological issues that arise from using the current method and how authors try to overcome it. Provide an assessment of how an alternate method could be applied to the same data. Discuss assumptions behind each of the methods (original vs hypothetical).

Course materials

Suggested Textbooks and materials

- "Introductory Econometrics: A Modern Approach" by Jeffrey Wooldridge (4th edition), South-Western Cengage Learning, 2009.
- "Mastering Metrics. Josh Angrist and Steven.
- Selected Papers from top economics and political science journals.

Additional materials

"Econometric Analysis of Cross Section and Panel Data", MIT Press, 2002 (WA)

Cameron, A. Colin and Pravin K. Triverdi "Microeconometrics: Methods and Applications", (8th edition), Cambridge University Press, 2009

Further references will be provided during the course.

Academic integrity policy

Cheating, plagiarism, and any other violations of academic ethics at NES are not tolerated.