# Econ 613: Applied Econometrics

Spring 2022

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| **Instructor:** | Modibo Sidibe | **Time:** | MW 12:00 – 1:15 PM |
| **Email:** | ms486@duke.edu | **Place:** | LSRC B101 and Zoom |

**Course Pages:** https://github.com/ms486/Econ613

**Office Hours:** After class, or by appointment, or post your questions on Slack.

**Main References:**

- Cameron, A., Trivedi, P. (2005). Microeconometrics: Methods and Applications. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511811241
- Jeffrey M. Wooldridge, 2010. "Econometric Analysis of Cross Section and Panel Data," MIT Press Books, The MIT Press, edition 2.

**Objectives:** Empirical research in microeconomics, with emphasis on three main sub-fields: labor economics, public economics, and industrial organization. Focus on data manipulation and implementation of key econometric models and student independent analysis of current research using statistical software. Same as Economics 411, but additional work required.

**Prerequisites:** An undergraduate-level understanding of probability, statistics, and linear algebra is assumed. Economics 208D or 608D are required.

**Tentative Course Outline:**

- Introduction to Data Science
- Methods
  - Maximum Likelihood Estimation Techniques
  - GMM
  - Numerical Optimization
  - Bootstrap
- Methods for cross section data.
- Panel data analysis
- Treatment Evaluation
- Semiparametric Methods (Time)

**Teaching Assistant:**

- Hung-Wei Chang
- Yasin Simsek
- Shenghan Zhao

**Grading Policy:** Assignments (50%), Reading note (20%), Final Project (30%).

**Class Policy:**

- Strict academic honesty policy is expected.
- Regular attendance is essential and expected.
- Be on time!