

## Syllabus

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**Course: Topics in Applied Microeconomics**

**Professor: Gregorio Caetano**

**2022 SECOND QUARTER**

### COURSE OUTLINE

This course aims to give you an introduction on how to conduct empirical research in topics that involve sorting. I will start by introducing graphical models as a notation to speak about causal relationships, relating it to potential outcome models. Next, I will discuss control function approaches and discrete choice models, with particular emphasis on dealing with endogeneity concerns. Finally, we will spend most of the course using these tools we just learned (as well as more standard tools you have learned in other courses) to discuss empirical papers related to sorting.

### PROGRAM

1. Causality using Graphical Models
2. Control Functions
3. Discrete Choice Models
  - a. Logit/Probit
  - b. BLP
4. Sorting Models
  - a. Value of Amenities
  - b. Neighborhood Effects
  - c. Segregation

### BIBLIOGRAPHY

#### Causality Using Graphical Models

- Morgan, Stephen and Christopher Winship. Counterfactuals and causal inference. Cambridge University Press, 2014.
- Cunningham, Scott. *Causal Inference*. Yale University Press, 2021.

#### Discrete Choice Models:

- Kenneth Train. *Discrete choice methods with simulation*. Cambridge University Press, 2009.
- Berry, Steven T. "Estimating discrete-choice models of product differentiation." *The RAND Journal of Economics*: 242-262, 1994.
- Berry, Steven, James Levinsohn, and Ariel Pakes. "Automobile Prices in Market Equilibrium." *Econometrica: Journal of the Econometric Society*: 841-890, 1995.

#### Control Function:

- Morgan, Stephen and Christopher Winship. Counterfactuals and causal inference. Cambridge University Press, 2014.

### Sorting Models:

- Almagro, Milena, and Tomás Domínguez-lino. "Location sorting and endogenous amenities: Evidence from Amsterdam." Working Paper, 2021.
- Bayer, Patrick, Fernando Ferreira, and Robert McMillan. "A unified framework for measuring preferences for schools and neighborhoods." *Journal of Political Economy* 115.4: 588-638, 2007.
- Black, Sandra. Do Better Schools Matter? Parental Valuation of Elementary Education. *Quarterly Journal of Economics*, 114(2):577-599, 1999.
- Caetano, G. Neighborhood sorting and the value of public school quality. *Journal of Urban Economics*, 114, 103193, 2019.
- Caetano, Gregorio, and Hugh Macartney. "What determines school segregation? The crucial role of neighborhood factors." *Journal of Public Economics* 194: 104335, 2021.
- Caetano, Gregorio, and Vikram Maheshri. "School segregation and the identification of tipping behavior." *Journal of Public Economics* 148: 115-135, 2017.
- Caetano, Gregorio, and Vikram Maheshri. "Identifying dynamic spillovers of crime with a causal approach to model selection." *Quantitative Economics* 9.1: 343-394, 2018.
- Caetano, Gregorio, and Vikram Maheshri. "Gender segregation within neighborhoods." *Regional Science and Urban Economics* 77: 253-263, 2019.
- Caetano, Gregorio, and Vikram Maheshri. *Explaining Recent Trends in US School Segregation*. Forthcoming at *Journal of Labor Economics*, 2021.
- Caetano, Gregorio, and Vikram Maheshri, A Unified Empirical Framework to Study Segregation. Working Paper, 2021.
- Card, David, Alex Mas, and Jesse Rothstein. Tipping and the Dynamics of Segregation\*. *Quarterly Journal of Economics*, 123(1):177-218, 2008.
- Chay, Kenneth and Michael Greenstone. Does air quality matter? Evidence from the housing market. *Journal of Political Economy*, 113(2), 2005
- Chetty, R., Hendren, N., Kline, P., and Saez, E.. Where is the land of opportunity? The geography of intergenerational mobility in the United States. *The Quarterly Journal of Economics*, 129(5): 141-175, 2014.
- Chetty, Raj, Nathaniel Hendren, Patrick Kline, Emmanuel Saez, and Nicholas Turner. "Is the United States Still a Land of Opportunity? Recent Trends in Intergenerational Mobility." *American Economic Review*, 104 (5): 141-47, 2014.
- Christensen, Peter and Christopher Timmins. "Sorting or Steering: Experimental Evidence on the Economic Effects of Housing Discrimination," Forthcoming in *Journal of Political Economy*, 2021.
- Diamond, Rebecca The determinants and welfare implications of US workers' diverging location choices by skill: 1980-2000. *American Economic Review*, 106(3), 479-524, 2016.
- Moretti, Enrico and Patrick Kline. "Local Economic Development, Agglomeration Economies and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority", *Quarterly Journal of Economics*, 129(1), 2014.

### GRADING

30% Presentation of an empirical paper from the "sorting" list above.

20% Referee report of one paper. (Choose a paper from a wide list based on your interest.)

50% Written Project Proposal.

**PROFESSOR – CONTACT**

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