

PSC 587/PEC 582: Structural Modeling and Estimation

Room: Harkness 329 (Fenno Room)

Days and Time: MW, 10:00-12:00

Instructor: Sergio Montero

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Course Description: Structural models enable social scientists to conduct rich analyses of how institutions and public policy shape individual or collective decision-making. The structural approach to empirical research is particularly useful in settings where more traditional methods cannot be applied, such as when agents behave strategically or when we wish to predict the consequences of never-before-observed policy interventions. This course covers the fundamentals of structural modeling and estimation. Depending on student interest, applications from economics, marketing, and political science will be considered, but emphasis will be placed on the methodology with the aim of helping students expand their research toolkit.

Prerequisites: Students are expected to have taken PSC 404, 405, 407, and 408, or equivalent graduate courses in another department. While PSC 584 is not required, students unfamiliar with games of incomplete information should be prepared to learn the material on their own if necessary for any of the readings. This course complements PSC 585 with a focus on static models.

Computing: Structural models rarely admit estimation using canned routines in popular statistical software (e.g., SPSS, Stata). Familiarity with a programming language (e.g.,

Matlab, Python, R) is therefore indispensable for structural estimation. Students should be

¥ Nevo, A. and Whinston, M. D. (2010). "Taking the Dogma out of Econometrics: Structural Modeling and Credible Inference." *Journal of Economic Perspectives* 24(2):69-82.

¥ Montero, S. (2016). "Going It Alone? An Empirical Study of Coalition Formation in Elections." Working Paper.

¥ Martin, G. J. and Yurukoglu, A. (2016). "Bias in Cable News: Persuasion and Polarization." Working Paper.

5. Lobbying and Congress

¥ Kang, K. (2016). "Policy Influence and Private Returns from Lobbying in the Energy Sector." *Review of Economic Studies* 83(1):269-305.

¥ Canen, N. and Trebbi, F. (2016). "Endogenous Network Formation in Congress." Working Paper.

6. Deliberation in Committees and Judicial Politics

¥ Iaryczower, M. and Shum, M. (2012). "The Value of Information in the Court: Get it Right, Keep it Tight." *American Economic Review* 102(1):202-237.

¥ Iaryczower, M. and Shum, M. (2013). "Money in Judicial Politics: Individual Contributions and Collective Decisions." Working Paper.

¥ Iaryczower, M., Shi, X., and Shum, M. (2016). "Can Words Get in the Way? The Effect of Deliberation in Collective Decision-Making?" *Journal of Political Economy*, forthcoming.

¥ Lopez-Moctezuma, G. (2016). "Sequential Deliberation in Collective Decision-Making: The Case of the FOMC." Working Paper.

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