SYLLABUS

Overview: This course explores relationships between economic theory, identification, estimation and econometric practice. It develops structural approaches for analyzing large cross sectional and longitudinal data sets, by exploiting restrictions derived from the equilibrium dynamic outcomes in individual discrete choice optimization problems and non-cooperative games. We investigate empirical content, characterize identification, evaluate alternative estimators and testing procedures, as well as consider counterfactuals. There are three segments. The first analyzes auctions and market microstructure, the second dynamic discrete choice models, while the third investigates applies optimal contracting theory to managerial compensation.

Assessment: There is a final examination (25 percent), and three assignments (25 percent each). The assignments include a heavy dose of computational and empirical work, while the closed book final exam tests your understanding of the lecture material.

Lectures and office hours: Classes meet from 10:30AM to 12:20PM on Tuesdays and Thursdays in Room 4219. In addition regular tutorials will be conducted by Jaepil Lee, Martin Michelini and Mauro Moretto. Tutorials and makeup classes scheduled for days I am out of town will be conducted on Fridays at 1:30PM through 3:30PM. Office hours are by appointment, made after class or by email.

Course material: All course material and scheduling changes are posted at:

http://comlabgames.com/47-901/

AUCTIONS AND MARKET MICROSTRUCTURE

Sealed Bid Auctions (Tuesday January 14)


Auction Dynamics (Thursday January 16)


Tutorial (Friday January 17)

Procurement Contracts (Tuesday January 21)


Limit Order Markets (Thursday January 23)


Tutorial (Friday January 24)

DYNAMIC DISCRETE CHOICE

Conditional Independence (Tuesday January 28)


**Value Function Representation (Thursday January 30)**


**Tutorial (Friday January 31)**

**Identification (Tuesday February 4)**


**CCP Estimators (Thursday February 6)**


**Tutorial (Friday February 7)**

**Finite Dependence (Tuesday February 11)**


**Unobserved Heterogeneity (Thursday February 13)**


**Tutorial (Friday February 14)**

**OPTIMAL CONTRACTING**
**Pure Moral Hazard (Tuesday February 18)**


**Moral Hazard and Hidden Information (Thursday February 20)**


**Tutorial (Friday February 21)**

**Life Cycle Career Concerns (Tuesday February 25 and Thursday February 27)**


**Tutorial (Friday February 28)**

**FINAL EXAMINATION (Thursday March 5)**