TIME AND LOCATION: TTh 11:00am-12:15pm, VAN VLECK B215.

COURSE DESCRIPTION:
This is a graduate course in microeconomic theory. The course content will have two modules:

Decentralized markets: Classical equilibrium theory is based on two assumptions: (1) markets are competitive, i.e., all traders are negligible in the market; and (2) markets are centralized, i.e., a single market clearing applies to all traders’ demands and supplies for all assets. Modern financial and goods markets are neither competitive nor centralized. There is a growing literature on imperfectly competitive and decentralized markets, which has been increasingly active in the past decade.

In a sequence of lectures, we will learn how to model centralized and decentralized markets -- competitive and imperfectly competitive, static and dynamic -- in a systematic and fairly flexible way. We will discuss how market noncompetitiveness and decentralization affect agents’ behavior, equilibrium and welfare. What are decentralized market phenomena that have no centralized market counterparts? We will look into the new possibilities that market design offers when trading is decentralized and ask whether decentralized markets can be more efficient than centralized markets. We will discuss the insights from the literature as well as what we have yet to understand. We will introduce the relevant modeling techniques in the context of applications in microeconomics, industrial organization, macroeconomics, and finance.

Games among groups of agents: Game theory has implicitly focused on interactions in which either all players interact directly or all interactions are bilateral, as is the case in networks and matching models. In many economic applications, the relevant unit of analysis is a group. Examples include financial markets (traders participate in multiple exchanges), international trade (countries sign multilateral agreements), and political economy. How do interactions among groups differ from games played by individuals? How does the fact that a player interacts with others as a member of a group rather than an individual affect his behavior? We will learn techniques for modeling market and nonmarket interactions among groups.

The course will focus on theory and on market-design, broadly understood. The main emphasis will be on the classic contributions and recent developments. This course will provide you with an overview of the theories and the relevant techniques used in the analysis in these areas of research.

Some specific topics we’ll cover: Modern equilibrium theory; Games in demand functions --- challenges and applications; Liquidity; Static and dynamic inference in markets; Information aggregation; Games on networks; Decentralized market design; Social interactions.
**Course Material:** Course material (e.g., slides, handouts, articles not available on Jstor, ScienceDirect, Wiley) will be posted on Canvas (https://canvas.wisc.edu/courses/78400).

**Contact Information:** My office hours are on Tuesdays, 2:50pm-3:50pm in 7440 SOC SCI or by appointment. You can reach me by e-mail at mrostek[at]ssc.wisc.edu or by phone at 608.262.6723.

**Evaluation:**
(1) A take-home exam (choice of problems, 50%); distributed on May 7 (Tu), due on May 15 (W);
(2) Presentation of a paper related to the topics/methods of the course (50%), evaluated based on how much you’ve learned from the paper, how much we’ve learned from you, the quality of presentation itself; a handout with details about the rules of the presentation and some advice will be available on Canvas.

**Reading Materials:**
*Imperfectly Competitive Markets, Divisible Good Markets and Auctions: Classic Contributions, General Modeling*

**Static and Dynamic Inference in Markets, Information Aggregation**
Ostrovsky, M. N. Lambert, and M. Panov (2017): “Strategic Trading in Informationally Complex

**Imperfectly Competitive Trading and Liquidity, Bilateral Oligopoly, Dynamic Trading**

**Divisible Good Auctions: Market Design**
Decentralized Markets, Networks and Hypergraphs, Decentralized Market Design


Games Among Groups


Other Useful Resources:

ACADEMIC INTEGRITY: This is a PhD-level elective designed to teach cutting-edge research and help you prepare to successfully write a dissertation. If you are seriously considering cheating in this class, you are so fundamentally missing the point that I wouldn’t even know where to begin a conversation about why you shouldn’t do that. See https://conduct.students.wisc.edu/academic-integrity for more information on academic integrity.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES: McBurney Disability Resource Center syllabus statement: “The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student’s educational record, is confidential and protected under FERPA."
http://mcburney.wisc.edu/facstaffother/faculty/syllabus

DIVERSITY AND INCLUSION: Institutional statement on diversity: “Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.” https://diversity.wisc.edu