Overview
This is the second semester continuation of ECO 641, which is the Masters-level sequence in microeconomic theory. This course will focus on game theory, asymmetric information, and violations of the perfectly competitive model due to either market power or the presence of externalities and/or public goods.

Evaluation
There will be biweekly problem sets, starting with one handed out on Wednesday, January 16\textsuperscript{th}. Each problem set will be due at Noon on the second Friday after it is handed out (exact due dates are in Canvas). Please put problem sets in my mailbox in the departmental office. It is my expectation that it will take you 5-10 hours to complete each problem set. You may work in groups, but each member of the group must submit his or her own write-up of the problem set and identify all members of the group. Copying answers is not allowed and will be considered plagiarism.

There will be two midterm exams, roughly one-third and two-thirds of the way into the semester. The first midterm will be on Wednesday, February 27\textsuperscript{th}. The second midterm will be on Wednesday, April 10\textsuperscript{th}. The final exam will be on Wednesday, May 8\textsuperscript{th} from Noon-3:00 PM.

The final grade will be a weighted average of the problem sets, midterm exams, and final exam (30%, 20%, 20%, 30%). As a baseline, each problem set will count equally, but I reserve the right to adjust the weights on the problem sets for each student to increase his or her final grade (i.e. I can only deviate in your favor). I reserve the right to modify this grading scheme if attendance becomes a problem or if other issues arrive.

Textbook
Nicholson & Snyder (2011). \textit{Microeconomic Theory: Basic Principles and Extensions} (11\textsuperscript{th} or 12\textsuperscript{th} edition). I believe the bookstore is selling a version “with access.” I don’t know what that means and do not plan on using any online resources.

Recommended: Peters. \textit{Game Theory: A Multi-Leveled Approach} (2\textsuperscript{nd} edition). This is available online from the library and I have included a link to the e-book on Canvas.

Missing Class
Attending class is your responsibility. If you need to miss class for any reason, I expect you to let me know in advance and explain how YOU will learn the material covered in the missed class(es). I recommend an email like the following:

Dr. Andersen,

Hello, my name is <YOUR NAME> and I am a student in your Microeconomics II Course. I am contacting you in regards to a conflict in my schedule. <WHEN and WHY>.
I will cover the material by *WHAT YOU WILL DO*.

**Tentative Schedule**

1. Game theory
   a. Simultaneous games
   b. Sequential games
   c. Bayesian games
   d. Repeated games
2. Imperfect competition
   a. Monopoly
   b. Oligopoly

*Mid-semester Break around here*

3. Asymmetric information
   a. Principal-Agent problems
   b. Moral hazard
   c. Adverse selection
   d. (Non-)Existence of insurance market equilibria
   e. Market signaling
4. Externalities/public goods
   a. Efficiency costs
   b. Coase theorem
   c. Production of public goods
5. Basic auction theory (time permitting)

**Specific Course Learning Objectives**

Upon successful completion of this course, students will be able to:

1. Apply the concept of Nash equilibrium to solve simple games.
2. Explain the Prisoner’s Dilemma game and its importance to economics.
3. Describe monopoly formation, maintenance, and pricing.
5. Apply Cournot and Bertrand models of oligopoly to analyze inefficiencies of imperfect competition.
6. Critique traditional models of imperfect competition.
7. Discuss the importance of entry in long-run models of imperfect competition.
8. Explain moral hazard and adverse selection.
9. Discuss the market failure associated with asymmetric information.
10. Describe the importance of externalities and public goods and some mechanisms for correcting the resulting market failures.