

ECON 502 - Microeconomics: Theory and Applications  
Spring Semester 2015

**Professor:** Erik Hembre

**Office Hours:** Tues/Wed 1:00-2:00pm, or by appointment (UH 702)

**Email:** ehembre@uic.edu

**Lectures:** Mon/Wed, 3:30-4:45pm, BSB331

**Course website on Blackboard**

**Teaching Assistant:** Michael Kelley (mkelley2@uic.edu)

**TA Office Hours:**

## Course Description

This course will be split into two basic parts. The first half of the course will cover game theory topics including normal form, extensive form, and repeated games. This will include games of perfect/imperfect and complete/incomplete information and associated solution concepts.

The second half of the course will cover topics in information economics including Bayesian Games, signalling, screening and moral hazard problems, and mechanism design. Information plays an important role in many economic applications, including labor markets, insurance, taxation, selling mechanisms, and investment.

## Course Structure and Requirements

### Grading

Your grade for the class will be weighted as follows:

- Midterm: 45%
- Final Exam: 45%
- Problem Sets: 10%

The Midterm is currently scheduled for March 9th.

The final exam will NOT be cumulative. Problem sets will be graded mostly on completion, not accuracy. Completion requires an honest attempt to solve the problem. All problem sets assigned prior to the midterm are due the day before the midterm. Other problem sets are due the day before the final.

## Textbooks

*Required:*

Robert Gibbons, *Game Theory for Applied Economists*

Bernard Salanie, *The Economics of Contracts*, 2nd Ed.

*Other:*

Hal Varian, *Microeconomic Analysis*, 3rd Ed. (Ch. 15 & 25)

Geoffrey Jehle and Phillip Reny, *Advanced Microeconomic Theory*, 3rd Ed.

Roger Myerson, *Game Theory: Analysis of Conflict*

Drew Fudenberg and Jean Tirole, *Game Theory*

Mas-Collel, Whinston, Green, *Microeconomic Theory*, (Ch. 7-9, 13,14,23)

Vijay Krishna, *Auction Theory*, 2nd Ed.

This class will mainly draw its material from lecture notes (largely attributed to Bill Sandholm), Gibbons (for Game Theory) and Salanie (for Information Economics). There are a number of other great sources of information for the topics covered in this course. Ambitious students may consider Fudenberg and Tirole for an excellent and detailed, though more technical, coverage of game theory.

## Prerequisites

ECON501; A love (or hate) for economics.

## Policies

**Academic Integrity:** It is absolutely imperative that you adhere to the principles of academic integrity as outlined in the University of Illinois at Chicago rules. Homework problems may be worked on in groups. Answers should not be shared between groups unless everyone has submitted the homework. All instances of academic dishonesty on exams will result in a zero for that exam and may be reported to the appropriate authorities and will be punished to the extent of university rules.

**Academic accommodations:** If you have a documented learning disability, please provide me with an accommodation letter from Student Disability Services as soon as possible. Students are expected to give at least two weeks notice of the need for accommodations. If you need immediate accommodations, please arrange to meet with me within the first two class meetings. I encourage you to meet with me early in the term so that we can discuss strategies for a successful experience in this course. If you have a disability and have not registered with Student Disability Services, I encourage you to do so.

## Course Outline

- Game Theory
  - Static Games
  - Dynamic Games
  - Repeated Games
- Information Economics
  - Adverse Selection/Moral Hazard/Signalling
  - Mechanism Design