

## Syllabus

### ECON 8817

### Autumn 2016

Contact Info:	Professor
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<b>Office Hours</b>	By appointment
<b>Lectures</b>	Tue & Thu 9:35–10:55 in Arps 386
<b>Course Website</b>	<a href="http://carmen.osu.edu">http://carmen.osu.edu</a>

#### Required Text:

- *Game Theory*, by Fudenberg & Tirole. The encyclopedic text of game theory.

#### Recommended Texts:

- *Notes on the Theory of Choice*, by Kreps.
- *Game Theory*, by Myerson.
- *A Course in Game Theory*, by Osborne & Rubinstein.

**Presentations:** As progress toward your degree, you should be starting to work on research outside of class. In this class you will present two updates on your progress.

The first presentation is to help you get ideas for research. It will be approximately  $150/n$  minutes long, where  $n$  is the number of students enrolled in the class. If you do not already have a specific topic, then this should be a literature review of a topic of interest. Presentations will be in the third week of the semester. The goal here is to get you to read a literature extensively, figure out what the important contributions are, where there are holes, and how research in that area is normally conducted (ie, what types of models are typically used, how things are proven, etc.)

Before the first student gives their first presentation, all students must turn in a written literature review, typed in L<sup>A</sup>T<sub>E</sub>X. I recommend you create a B<sub>I</sub>B<sub>T</sub>E<sub>X</sub> database in doing this; it will be useful later.

The second presentation will last  $225/n$  minutes. In this, you will present progress you've made on a specific research question. If possible, focus your talk on the theoretical aspects of your work. Since time is short, you will be *strictly* limited to 60 seconds of introduction and motivation.

**Problem Sets:** There will be one massive problem set during the semester. It will be assigned at the beginning of the semester and will be due at the last meeting of the semester. It will receive a score of ‘check’, ‘check plus’, or ‘check minus’. It will contain problems that will be helpful in preparing for the theory field exam, for those taking that exam.

**Homework:** ‘Homework’ problems are problems I come up with during lecture. You should work on these at home and figure them out, but you are not required to turn them in.

**Grades:** You will get a grade at the end of the semester based on your overall performance throughout the class.

**Academic Dishonesty:** It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct: [http://studentaffairs.osu.edu/resource\\_csc.asp](http://studentaffairs.osu.edu/resource_csc.asp).

**Disability Services:** Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.

Tentative Schedule:

Week	Day	Date	Tentative Plan
01	T	08/23	Choice under uncertainty
01	R	08/25	Choice under uncertainty
02	T	08/30	Choice under uncertainty
02	R	09/01	Iterated solution concepts & rationalizability
03	T	09/06	LIT REVIEW PRESENTATIONS: DAY 1
03	R	09/08	LIT REVIEW PRESENTATIONS: DAY 2
04	T	09/13	Correlated equilibrium & rationalizability
04	R	09/15	Correlated equilibrium & rationalizability
05	T	09/20	Common knowledge & no-trade theorems
05	R	09/22	Aumann & Brandenburger (1995)
06	T	09/27	Type Spaces
06	R	09/29	Bayesian games: Type spaces & epistemic type spaces
07	T	10/04	Bayesian games: Examples
07	R	10/06	Extensive form: behavior strategies & multi-stage games
08	T	10/11	Extensive form: subgame perfection & common strong belief in rationality
08	R	10/13	<b>AUTUMN BREAK</b>
09	T	10/18	Extensive form: subgame perfection & common strong belief in rationality
09	R	10/20	<b>Class Canceled</b>
10	T	10/25	Repeated games: folk theorems
10	R	10/27	Extensive form w/ incomplete info: PBE vs sequential equilibrium
11	T	11/01	Extensive form w/ incomplete info: reputations & imperfect monitoring
11	R	11/03	Trembling hand perfection & Quantal response equilibrium
12	T	11/08	Learning dynamics
12	R	11/10	<b>Class Canceled?</b>
13	T	11/15	Student-chosen topics
13	R	11/17	Student-chosen topics
14	T	11/22	Student-chosen topics
14	R	11/24	<b>THANKSGIVING BREAK – NO CLASS</b>
15	T	11/29	PROJECT PRESENTATIONS: DAY 1
15	R	12/01	PROJECT PRESENTATIONS: DAY 2
16	T	12/06	<b>Class Canceled</b>
F		12/09	8:25–9:45am: PROJECT PRESENTATIONS: DAY 3