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Economics 8713: Microeconomic Theory 2A

Spring 2025

This is the third course in the graduate microeconomics core sequence. It covers standard topics in game theory, imperfect competition, and related applications.

Main textbook

[MWG] Andreu Mas-Colell, Michael Whinston, and Jerry Green, *Microeconomic Theory*, New York: Oxford University Press, 1995.

Other useful texts:

[FT] Drew Fudenberg and Jean Tirole, *Game Theory*, MIT Press, 1991.
David Kreps, *A Course in Microeconomic Theory*, Princeton University Press, 1990.

Grading

Your course grade will be determined as follows: 10% from homework, 30% from the midterm exam, and 60% from the final exam. There will be five homework assignments. While you are encouraged to discuss the homework questions with your classmates, you must independently write and submit your own answers.

Course GTA

Zexin Ye
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Your GTA will be responsible for grading your problem sets and leading recitation sessions on Fridays.

Readings

I. Strategic Environments

MWG: 7.A-E
FT: 3.1-3.4.3

II. Strategic Choice in Static Games of Complete Information

MWG: 8.A-D,F

FT: 1,2,8.4

Schelling, T., *The Strategy of Conflict*, Harvard University Press, 1980.

Bernheim, D., "Rationalizable Strategic Behavior," *Econometrica* 52, 1984, 1007-28.

Applications:

MWG: 12. C

III. Strategic Choice in Static Games of Incomplete Information

MWG: 8.E

FT: 6

Harsanyi, J., "Games with Incomplete Information Played by Bayesian Players, I,II, and III," *Management Science* 14, 1967-68, 159-82, 320-34, 486-503.

Applications:

FT: 7

Mussa, M. and S. Rosen, "Monopoly and Product Quality," *Journal of Economic Theory* 18, 1978, 301-17.

Maskin, E. and J. Riley, "Monopoly with Incomplete Information," *RAND Journal of Economics* 15, 1984, 171-196.

McAfee, P. and J. McMillan, "Auctions and Bidding," *Journal of Economic Literature* 25, 1987, 699-738.

IV. Strategic Choice in Dynamic Games of Complete Information

MWG: 9.A, B

FT: 3.5-3.6, 4, 5

Kreps, Chapter 14.

Selten, R., "Re-examination of the Perfectness Concept for Equilibrium Points in Extensive Games," *International Journal of Game Theory* 4, 1975, 25-55.

Benoit, J.-P. and V. Krishna, "Finitely Repeated Games," *Econometrica* 53, 1985, 905-922.

Abreu, D., "On the Theory of Infinitely Repeated Games with Discounting," *Econometrica* 56, 1988, 383-96.

Applications:

MGW: 12. D-G

1. Dynamic models of imperfect competition

Kreps, D. and J. Scheinkman, "Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes," *Bell Journal of Economics* 14, 1983, 326-37.

Green, E. and R. Porter, "Non-cooperative Collusion under Imperfect Price Information," *Econometrica* 52, 1984, 87-100.

2. Imperfect competition with entry

D'Aspremont, C., J. Gabszewicz, and J.-F. Thisse, "On Hotelling's Stability in Competition," *Econometrica* 17, 1979, 1145-1151.

Sutton, J and A. Shaked, "Product Differentiation and Industrial Structure," *Journal of Industrial Economics* 36, 1987, 131-147.

Dixit, A. and J. Stiglitz, "Monopolistic Competition and Optimal Product Diversity," *American Economic Review* 67, 1977, 297-308.

Spence, A.M., "Product Selection, Fixed Costs, and Monopolistic Competition," *Review of Economic Studies*, 1976.

Salop, S., "Monopolistic Competition with Outside Goods," *Bell Journal of Economics* 20, 1979, 141-156.

3. Dynamic bargaining

Rubinstein, A., "Perfect Equilibrium in a Bargaining Model," *Econometrica* 50, 1982, 97-110.

V. Strategic Choice in Dynamic Games of Incomplete Information

MWG: 9.C, D

FT: 8,9,11

Kreps, D. and R. Wilson, "Sequential Equilibrium," *Econometrica* 50, 1982, 863-94.

Kohlberg, E. and J.-F. Mertens, "On the Strategic Stability of Equilibria," *Econometrica* 54, 1986, 1003-38.

Kreps, D., P. Milgrom, J. Roberts, and R. Wilson, "Rational Cooperation in the Finitely Repeated Prisoners' Dilemma," *Journal of Economic Theory* 27, 1982, 245-52.

Applications:

1. Signaling problems

Cho, I-K and D. Kreps, "Signaling Games and Stable Equilibria," *Quarterly Journal of Economics* 102, 1987, 179-221.

Banks, J. and J. Sobel, "Equilibrium Selection in Signaling Games," *Econometrica* 55 (3), 1987, 647-661.

Milgrom, P. and J. Roberts, "Prices and Advertising Signals of Product Quality," *Journal of Political Economy* 94, 1986, 796-821.

2. Entry deterrence

Milgrom, P. and J. Roberts, "Limit Pricing and Entry under Incomplete Information," *Econometrica* 50, 1982, 443-460.

Milgrom, P. and J. Roberts, "Predation, Reputation, and Entry Deterrence," *Journal of Economic Theory* 27, 1982, 288-312.

Academic misconduct:

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://studentlife.osu.edu/csc/>.

Religious accommodations:

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

Mental health:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and

other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling [614-292-5766](tel:614-292-5766). CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at [614-292-5766](tel:614-292-5766) and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

Disability services:

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are isolating while waiting for a COVID-19 test result, please let me know immediately. Those testing positive for COVID-19 should refer to the [Safe and Healthy Buckeyes site](#) for resources. Beyond five days of the required COVID-19 isolation period, I may rely on Student Life Disability Services to establish further reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu