

Econ 701A – Microeconomic Theory I
Steven A. Matthews, University of Pennsylvania
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Description. This is the first half of Econ 701, focusing on decision, consumer and producer theory. Its prerequisite is Econ 897 (Math Camp).

Lectures. TR, 1:30-3 pm in 100 PCPE

Recitations. Tentatively: Mondays, 3-5 pm, in TBA PCPE

Professor. Steven Matthews <stevenma@econ.upenn.edu>
Office hours: Thursdays, 3:30-5 pm in 618 PCPE

Teaching Assistant. Shuo Yang <shuoy@sas.upenn.edu>
Office hours: TBA

Emailing. Put “ECON 701” in the subject line when you email us.
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Homework. Almost weekly problem sets, graded on a scale 0-3. No late homework will be graded. You will gain the most from spending a lot of time doing the problems, without reading solutions that may be floating about. Study groups are good, but write up your solutions individually. Solutions will be posted to each problem set ex post.

Exams. One 30 minute quiz, one 75 minute exam. Both closed book, notes, and devices

Grading. 20% quiz and 80% midterm. Homework determines borderline grades

Course Materials. Posted on Canvas: <http://canvas.upenn.edu>

Required Text: Mas-Colell, Whinston and Green, *Microeconomic Theory*

Supplementary Texts:

- Jehle and Reny, *Advanced Microeconomic Theory*, 3rd ed.
- Miller, *Notes on Microeconomic Theory*: <https://business.illinois.edu/nmiller/notes.html#download>
- Rubinstein, *Lecture Notes in Microeconomic Theory*, <http://arielrubinstein.tau.ac.il/books.html>
- Gilboa, *Theory of Decision under Uncertainty*

Important Dates.

- **Sept 26: Quiz (in class)**
- **Oct 1: No class (Rosh Hashana)**
- Oct 10: No class (Fall break)
- Oct 17: Exam (in class)
- Sept 5, 12, 19 (Thursdays) and Oct 8 (Tuesday): Problem Sets (PS) **1-4** due

Tentative Topics

1. Decision Theory Foundations (MWG 1)
 - Preferences. Rational preferences. Utility representation
 - Behavior: Feasible sets and choice rules
 - Rational choice: weak axiom, rationalizability theorem
2. Consumer Choice and Preferences (MWG 2.A-E, 3.A-C)
 - Commodities (goods, dates, states). Consumption and budget sets
 - Walrasian demand correspondence. Homogeneity and Walras' law.
 - Comparative statics
 - Preference assumptions
 - Utility representation theorems
3. Demand Theory (MWG 3.D-H)
 - Utility maximization: Walrasian demand and indirect utility functions
 - Cost minimization: Hicksian demand and expenditure functions
 - Envelope theorem. Consequences: Shephard's lemma, Roy's identity
 - Slutsky decomposition
 - Briefly: Integrability
4. Further Topics in Demand Theory (MWG 3.I-J, MWG 4)
 - Welfare evaluation - consumer surplus measures
 - Revealed preference
5. Theory of the Firm (MWG 5)
 - Production sets and technology
 - Profit maximization and cost minimization
 - Comparative statics. Le Chatelier's principle
6. Choice under Uncertainty (MWG 6.A-D,F)
 - Expected utility theorem (vNM)
 - Comparing and measuring risk aversion (Pratt's Theorem)
 - Briefly: Subjective probability theorem (Savage)