

Syllabus
Economics 410-1

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PLEASE INCLUDE 410-1 IN SUBJECT LINE OF ALL E-EMAILS.

Sections: There are weekly sections where TAs will answer questions, solve problem sets, and cover material as time permits and according to your and their preferences.

Further course information (office hours, TAs, exam dates) will be posted separately on the web.

Web: Course material will be located on blackboard (canvas.northwestern.edu). Check the site regularly for announcements, which may include corrections to notes and problem sets. Make a note of when you download material as when changes are made I will (usually) indicate when the update was uploaded.

Texts: The text for the course is *Microeconomic Theory*, by MasColell, Whinston and Green, OUP (henceforth MWG, or mistakenly, GMW). Useful additional texts include

- *A Course in Microeconomics Theory*, by David M. Kreps, PUP
- *Microeconomic Foundations I: Choice and Competitive Markets*, by David M. Kreps, PUP
- *Microeconomic Analysis*, by Varian, Norton
- *Advanced Microeconomic Theory*, by Philip R. Reny and Goeffery A. Jehle, Addison-Wesley (for some reason out of print in the Pearson US publishers site, but available from the UK [site](http://www.addison-wesley.com). This book is highly recommended).
- *Lecture Notes in Microeconomic Theory: The Economic Agent*, by Ariel Rubinstein, PUP (online versions available at [PUP <http://www.pupress.princeton.edu/rubinstein/>](http://www.pupress.princeton.edu/rubinstein/) and at Rubinstein's website).

Two books that go far beyond what we will cover are

- *The Economics of Risk and Time*, by Gollier, MIT Press
- *Notes on the Theory of Choice*, by Kreps, Westview Press

The latter is a truly beautiful book in my opinion. We will not have time to delve into *Modeling Bounded Rationality*, by Rubinstein, MIT Press, available online at <http://arielrubinstein.tau.ac.il/book-br.html>, but it contains insightful perspectives related to some topics of this course.

Material:

- MWG: Chapters 1-6, and in addition 20.B (with 3), 12.B (with 5), 21 and 17.C (with 4), 14 (pp. 485-6) and 8.B (with 6)
- Varian 8.5-8.8 (Chapters 1-11 often provide useful alternative perspectives on the material mentioned from MWG).
- Jehle-Reny 6.2. (Chapters 1-3 often provide useful alternative perspectives on the material mentioned from MWG).
- Class notes. (This is the main source (other than articles) for comparative statics and much of the material on uncertainty.)
- I also mention extra readings from time to time in the notes (or class).

A common concern is what material to study—the online notes, the texts or what I say in class. You may feel that you don't have time to read and study everything in all three. Obviously, what I cover in class is what I decided to emphasize and is the material you must understand. The material in the book and notes that is on exactly the same material as discussed in class complements the class and should help you understand it better (and correct any mistakes I make in class). Of course you should strive to go beyond what I cover in class, both because it will help you understand what I say and because it is useful—it is in the texts for a reason.

About notes: The uploaded notes have mistakes. If you find any (even minor typos), *please* notify me. Even if you are unsure whether you are confused or it is a mistake please ask.

The notes change during the course as the staff (and you) discover items to add and correct. We try to indicate dates of changes and what changes are made so you don't have to print out multiple copies of all pages, but such changes are unavoidable.

The notes include sections that may not be covered in class due to time constraints, a decision to emphasize different issues, or just how the class proceeds.

Objective: The course has several objectives. It will introduce concepts and tools of importance for almost all economists (pure and applied theorists and empirical economists alike): choice theory, demand/production analysis, comparative statics, and uncertainty. We will critically consider some underpinnings of welfare analysis, which itself underlies most of economics. We will see some very elementary and classic examples of the economic methodology: simple models used to highlight basic economic effects.

The course covers a lot of material, and much of it is basic in the sense that it will help you study other models that are richer and closer to the

current frontiers of research. It is nevertheless important to not only study the specifics and details we cover, but also begin your path as researchers: think critically about everything we do: are the assumptions reasonable, the models appropriate, the conclusions interesting, and the conceptual frameworks helpful or too restrictive?

The course is not a math course; I will try to give what I think are the basic economic intuitions behind results where such intuitions exist, but will not be spending much time going over proofs. You must learn how to read, understand and create proofs on your own.

Grading: Midterm (35%), final (45%), and (almost) weekly problem sets (20%).

Advice: Work together and learn from one another. Form discussion groups. But attempt all problems on your own, and make sure you understand the help that your colleagues give you.

Problem sets: You may work on problem sets in groups. Each group only need submit one problem set, with the names of all group members listed alphabetically by last name. Grading is based primarily on effort (although also on success), so show your work.

Sometimes problem sets may be hard to understand or have mistakes. Occasionally they are hard to understand because part of the work is in understanding how to make an incomplete idea into a complete one. But if you find it too confusing and certainly if you find any mistakes please contact the TAs or instructor so we can post corrections and/or clarifications online.

Sometimes problem sets may be too long; it is often hard for me to judge what may take a long time. If you think a problem set is unreasonably long please let me know right away, so I can decide whether to make some parts optional or to serve as review for later.

If you feel the need for more problems for study later then the books are a useful source for additional problems.

Request: I welcome feedback and constructive criticism. It is most valuable to you if you provide it during the course so I can make use of it. Please provide feedback about the pace—whether I am going too slow or fast. I will not necessarily be able to respond to your requests and suggestions, but it is helpful to be aware of your perspective.

Approximate schedule:

I list the number of weeks per topic, and order of topics below. The list is approximate and changes may occur both in time and order (e.g., I might move comparative statics to be after production and spend less time on it).

Choice theory: 1 week

Consumer choice: 1 week

Demand theory: 2 weeks

Aggregation: 1 week

Production: 1 week

Comparative statics: 2 weeks

Uncertainty: 2.5 weeks