

University of Virginia
Department of Economics

Economics 7010: Microeconomic Theory I, Fall 2023

Peter Troyan
troyan@virginia.edu
Office: Monroe 340
Office Hours: Mondays, 1:00 – 2:00 pm

TA: Yiren Dang
yd9mk@virginia.edu
Office hours: TBD

Lectures: Monday/Wednesday, 5:00 – 6:15 pm, Monroe 114
Section: Friday, 2:00 - 2:50 pm, New Cabell Hall 058 (starts 9/1)

COURSE SUMMARY

This is the first course in a three-semester graduate microeconomics sequence designed to equip you with the basic analytical tools of modern microeconomic theory. This semester covers producer theory, preferences, utility theory, consumer choice, and choice under uncertainty. The second course in the sequence examines market structure, general equilibrium, and welfare. The third semester introduces game theory and models of asymmetric information.

Required texts:

[MWG] Microeconomic Theory, by A. Mas-Colell, M.D. Whinston, and J.R. Green; Oxford University Press, 1995.
[Varian] Microeconomic Analysis, 3rd ed., by Hal R. Varian; Norton, 1991.

MWG, while dense at times, provides a very comprehensive introduction to consumer theory and expected utility, but its coverage of producer theory is more brief. Varian provides a good introduction to producer theory. Accordingly, the lecture notes will be drawn mainly from Varian up until the first exam, and then will adhere more closely to MWG for the remainder of the course. Additional material not covered in either book may also be inserted into the lectures at times. You are responsible for this material as well. In general, the lecture notes should be your first source for information, with Varian and MWG used as references. Most of the topics are covered in both books, so you should feel free to use whichever you are more comfortable with.

Exams and Grading:

Grades will be based on problem sets and exams as follows:

40% Exam 1
40% Exam 2
20% Problem sets

Exams will be during the scheduled class periods. The exact date of Exam 1 is TBD, but will be sometime in mid-to-late October. Exam 2 will be on the last day of regular classes (December 4th).

Problem Sets:

Over the course of the semester, I will assign approximately 6-7 problem sets. Each problem set will be posted on Collab at least one week in advance of the due date and are due in the TA's mailbox by the time and date noted when they are distributed. Late problem sets will not be accepted. Collaborating with classmates is allowed (and strongly encouraged), but each person must write up and turn in solutions individually. Consulting any type of solutions manual is *not* allowed and *is considered a violation of the Honor Code*. Since you are all graduate students, it should not have to be said, but this is for your own good – the best way to learn the material is to work through many, many problems. The problem sets should be thought of as an extreme “lower bound”, and I strongly encourage you to solve additional problems beyond those that are formally assigned. If you do not put in the required time and effort on the problem sets throughout the entire year (in all of your classes, not just this one), you almost certainly will not pass the cores in June.

OUTLINE OF TOPICS COVERED

I. Producer Theory:

Technology: MWG Ch. 5B, Varian Ch. 1
Profit Maximization: MWG Ch. 5C, Varian Ch. 2-3
Cost Minimization: MWG Ch. 5C-D, Varian Ch. 4-5
Duality: Varian Ch. 6

II. Consumer Theory

Preferences: MWG Ch. 1, Varian Ch. 7
Utility Maximization: MWG Ch. 1, Varian Ch. 7
Choice: MWG Ch. 2, Varian Ch. 8
Demand: MWG Ch. 3-4, Varian Ch. 9
Consumer Surplus and Welfare: MWG Ch. 3, Varian Ch. 10

III. Choice under Uncertainty

Preferences over Lotteries, Expected Utility, Risk Aversion: MWG Ch. 6, Varian Ch. 11