PPM 506: Advanced Microeconomics for Policy Analysis
Fall 2015

Instructor: Brian Dillon
Email: bdillon2@uw.edu
Phone: 206.221.4601
Office: Parrington 209G
Meeting time: T/Th 12:30-1:50
Class location: Fisheries Teaching and Research Building (FTR) 032
Office hours: Thursday 2:00-3:00, and by appointment
Textbook: Nicholson and Snyder, Microeconomic Theory, 10th edition
Website: http://www.canvas.uw.edu

Course Objectives

The goal of this course is to give you a firm grounding in the basic components of doctoral level microeconomic theory. We will cover consumer theory (constrained optimization), producer theory (unconstrained optimization), choice under uncertainty, inter-temporal choice, public economics, and the basics of general equilibrium and welfare economics. If time allows we will study select topics in game theory, contract theory, and behavioral economics.

Although the intuition underlying this material is similar to that in undergraduate microeconomics, the exposition is very different. The theory is axiomatic: results are built by making assumptions about agents, then working out the implications of those assumptions for consumer demand, producer supply, equilibrium prices, and welfare. The theory progresses by relaxing assumptions, e.g., by exploring the implications of a different model of consumer choice, or by changing the objectives of the managers of firms. Keep in mind that you are learning a framework and a set of tools for understanding choice, not a set of fixed conclusions about how the world works.

The mechanics of microeconomic theory are borrowed from mathematics and theoretical physics. Comfort with multivariate calculus and advanced undergraduate economics is essential.

Grading and Assignments

Problem sets will be posted to the Canvas site during most weeks of the quarter. They will be due one week later, and the solutions will be posted around that time. Problem sets will be graded on a coarse scale (check plus, check, check minus). Working through the problem sets before you see the answer key is essential to doing well in this course. Group work is encouraged, though there is no substitute for working through the problems by yourself before seeking help. Problem sets account for 10% of your final grade.

There will be two exams: a mid-term and a final. The mid-term will account for 40% of your grade, the final for 50%. Exams are cumulative, closed book, with no notes. Exam dates are as follows:

Mid-term: Tuesday, November 3 in class
Final: Thursday, December 17, 10:30-12:20
Additional materials

Other books that you might find helpful:

*Microeconomic Theory* by Mas-Colell, Whinston, and Green  
*Microeconomic Analysis* by Hal Varian  
*Mathematics for Economists* by Simon and Blume  
*A Course in Microeconomic Theory* by Kreps

Academic Integrity

UW and the Evans School expect students to adhere to the highest standards of academic integrity and honesty. A student found to be cheating on a quiz or exam will receive a zero for that test. A second offense will lead to a zero for the course. See the Evans School Student Handbook for more details.

Enrollment, Attendance, Absences

Check the University Calendar for the policy on incompletes and withdrawals. We will adhere to the university dates and policies.

If you are going to miss a class, talk to a classmate beforehand and arrange to get a copy of her/his notes. Office hours are not intended as a time to repeat material because of a class absence. If you are going to miss class on the day of an exam, you MUST contact me prior to the exam. Students who fail to do so will be given a zero for the exam and will forfeit the right to a make-up.

Finally, if you need to leave class early, please tell me before class and choose a seat near the exit. And when we have two minute stretch breaks during class, please don’t leave the room. Step out quietly during the lecture if you need to.

Communication

I want you to succeed in this course so I will be as available as possible to answer your questions and support your progress. That said, here are a few guidelines to help us organize communication:

i. The best ways to contact me are by email, in office hours, or before/after class.

ii. If you email me, I will get back to you within 48 hours. Except emails sent on Friday, which might not be answered until Monday.

iii. I do not answer emails that don’t have both a greeting with my name and/or title, and a signature with your name.

iv. I will use Canvas announcements to send messages to the class. Make sure that you customize your Canvas settings to get Announcements “ASAP” (In Canvas, click “Settings” at the top of the screen, then “Notifications” at left, then look for “Announcements” under “Course Activities”).
Course Outline

The outline below gives a preliminary schedule of topics and readings, all of which are subject to change. Because this is a small class, I will likely adjust the schedule to accommodate our progress. The only fixed dates are those of the mid-term and the final. All chapter references are to Nicholson and Snyder.

I. **Introduction, Math Review, and Optimization** (1 lecture)

   Economic Models  
   Demand and Supply  
   Envelope theorem (possibly)

   Chapters 1 and 2

II. **Consumer Theory** (4-5 lectures)

   Preferences and Utility  
   Utility Maximization  
   Indirect Utility and Expenditure  
   Marshallian and Hicksian Demands  
   Lump Sum Principle  
   Income and Substitution Effects  
   Compensating and Equivalent Variations

   Chapters 3, 4, 5, 6

III. **Producer Theory** (3-4 lectures)

   Production Functions  
   Cost Functions  
   Profit Maximization

   Chapters 9, 10, 11

Midterm on Tuesday November 3

IV. **Uncertainty and Inter-temporal Choice** (3-4 lectures)

   Decision Making Under Risk and Uncertainty  
   Discounting  
   Prospect Theory  
   Inter-temporal Choice  
   Present Bias
V. General Equilibrium and Welfare Economics (2-3 lectures)

Partial Equilibrium Competitive Model
General Equilibrium
The Welfare Theorems

Chapters 12, 13

VI. Public Economics (2-3 lectures)

Public Goods
Externalities

Chapter 19

VII. Other Topics (2-3 lectures, time allowing)

Monopoly
Asymmetric Information
Ambiguity

Chapters 14, 18, plus additional readings that may be assigned