ECON 2100 (Fall 2023) Intermediate Microeconomics
Francesco Agostinelli (Email address: fagostin@upenn.edu)
My Office: 604 PCPSE
Lectures: Monday and Wednesday, 3:30-5:00 PM, in COLL 200

Recitations: For each section there is one recitation a week. In each, a TA will cover the solutions to some of the problems in the review packet that will be relevant for that week's homework. The remainder of the time is for Q&A.

Office Hours:

- Each TA will hold 2 hours of office hours each week for a total of 8 hours a week (times will be soon on Canvas).

- My office hours: Tuesday, 11:00-12:00 PM & 1:30-2:30 PM (604 PCPSE)

Philosophy of this course: Microeconomics is the formal study of how individuals respond to incentives and its effect on social outcomes. Attention will focus on how the terms of trade between buyers and sellers are set. The course emphasizes the development of the mathematical tools needed to think carefully about incentives and necessitates a taste for long chains of reasoning. This course aims to shape you into economists. Its purpose is to change the way you think. This will be accomplished by posing questions whose answers will challenge your intuition.

Course Topics

- Rational Buyer Model

- Monopoly Pricing, Elasticity, and Costs

- Welfare & Price Dsicrimination

- Bundling & Versioning

- Imperfect Competition

- Consumer Theory

- Perfect Competition

- Externalities

Course Material (posted on CANVAS)

1. A copy of the entire slide deck is posted on CANVAS.

2. (Optional) *Prices and Quantities: Fundamentals of Microeconomics* by Rakesh V. Vohra (Penn). An electronic version is available through Penn libraries: https://doi-org.proxy.library.upenn.edu/10.1017/9781108773218

Grading policy (no scores are dropped, no extra credits):

- 7 Homeworks (15 % of grade, each homework is equally weighted)

- 3 Midterm exams (45 % of grade, each midterm exam is equally weighted)

- Final exam (40% of grade)

Course Calendar

- Sept 13: Homework 1 due

- Sept 20: Exam #1

- Sept 27: Homework 2 due

- Oct 9: Drop period ends

- Oct 11: Homework 3 due

- Oct 18: Exam #2

- Nov 1: Homework 4 due

- Nov 6: Last day to withdraw

- Nov 8: Homework 5 due

- Nov 15: Exam #3

- Nov 29: Homework 6 due

- Dec 11: Homework 7 due

- Final Exam in finals week (Dec 14-21) on the date set by the registrar. The tentative final exam schedule will be posted here: https://www.registrar.upenn.edu/finals/index.html.

Exams and Attendance Policy: All exams are *closed book*. Students who miss an exam for an allowable reason *must* report their absence on the Course Absence Reporting (CAR) System. An absence from an exam will only be excused under extreme and documented circumstances. In these rare cases, please notify me of the situation before the exam date. Students excused by me from an exam will see the weights on the *subsequent* exams and final adjusted upwards to account for the absence. There are *no* make-up exams. Below is the calendar of official religious holidays. For these specific holidays, students will be accomodated with an alternative arrangement. All requests for accommodation must be submitted by the end of the second week of class. Link to Secular and Religious Holidays: https://chaplain.upenn.edu/worship/holidays/

Homeworks: Homework assignments to be submitted via CANVAS as a single PDF file on the due date. Howeworks are due before class, and **no late work is accepted**. There are *no* make-up homeworks. Students excused by me (see above) from a homework will see the weights on the *subsequent* homeworks adjusted upwards to account for the absence.

Regrade Requests: Examination regrade requests must be made in writing within a week of receiving your graded exam/problem set. All regrade requests should be made to the course instructor. Note that as we re-grade the entire exam, your score could increase or decrease.

Classroom Policies: Phones are not allowed in class. Phones and computers are not allowed during the exams. Calculators (even scientific) are permitted during the exams, but no "smart" devices such as tablet, laptop or phone. Recording classes is at the discretion of the course instructor.

Academic Integrity and Ethical Behavior: The College of Arts and Sciences takes academic integrity very seriously. Therefore, unless otherwise specified, it is imperative that you do your own work. Any suspected violations of academic integrity will be taken seriously. Information on the academic integrity policy may be found at https://www.college.upenn.edu/academic-integrity. Violations of this policy will result in a failing grade (F) and will be reported to Office of Student Conduct.

Prerequisites: Introductory microeconomics and macroeconomics (Econ 0100 and 0200); Math 1400 and Math 1410 or 1510 or students who have received a B+ or better in Math 1400 may take Econ 101 and Math 1410 or 1510 concur-

rently. Transfer students for Math 1400 must complete Math 1410 or 1510 before enrolling in Econ 101. This course assumes multivariate calculus, and a **strong** understanding of these mathematical tools is crucial to success in the course.

1. Functions and Properties of Functions

   - Monotonicity
   - Continuity
   - Concavity and Convexity
   - Logarithmic functions
   - Homogeneous functions

2. Derivatives

   - How to take a derivative
   - Product and Quotient Rules
   - Chain Rule
   - Partial derivatives
   - Total derivatives

3. Solving optimization problems

   - Unconstrained optimization: find the extrema of a function (maxima/ minima)
   - Constrained optimization: Method of substitution and Lagrange
   - Second order conditions
   - Comparative statics of solution and optimal value functions

Unanticipated Events: I reserve the right to modify the syllabus to account for unanticipated events.