

June 11, 2013

Intermediate Microeconomics

Econ 100A-B-C at UCSD

Econ 100A-B-C is the undergraduate intermediate microeconomics sequence at UCSD. The objectives of the sequence are to teach students (1) how to set up, solve and analyze optimization models, (2) to apply these mathematical models to the theory of the consumer, theory of the producer, and neoclassical markets, and (3) finally we examine the fundamentals of decision making under risk and uncertainty.

Econ 100A presents the basic mathematics of economics and the theory of the consumer. Topics include consumer choice among commodity bundles, labor-leisure choice, intertemporal choice and choice under uncertainty. Econ 100B analyzes the theory of the firm and markets when there is price taking behavior. Topics include the theory of production, commodity supply, input demand, and market equilibrium. In 100C we examine departures from the neoclassical model including imperfect competition, strategy, and asymmetric information. The prerequisites for the sequence are microeconomics principles (Economics 1) and calculus through multivariable differentiation (Mathematics 10C, 20C or 21C).

In order to properly prepare students for later classes in the sequence, avoid repetition and generally best serve the interests of the students, we require that all instructors stick to the outline described below. Suggestions are welcome but any deviation from the outline must be approved by Melissa Famulari.

In addition to the required reading for each of the following courses, students are encouraged to take advantage of the following supplemental material for the 100ABC sequence, available free over the Internet.

(1) Link to Martin Osborne's intermediate mathematics tutorial:

<http://www.economics.utoronto.ca/osborne/MathTutorial/index.html>

(2) Link to Preston McAfee's Introductory textbook (this material is at a level between most microeconomics principles textbooks and Perloff's more advanced treatment.)

<http://www.introecon.com/>

Econ 100C: Intermediate Microeconomics: Imperfect Competition, Strategy and Information

Econ 100C examines departures from the neoclassical model including imperfect competition, strategy, asymmetric information, and signaling.

Required Text

Fall 2013, Winter 2014: Perloff, Jeffrey M. (2011) *Microeconomics: Theory and Applications with Calculus*, 2nd edition

Spring and Summer 2014: Perloff, Jeffrey M. (2013) *Microeconomics: Theory and Applications with Calculus*, 3rd edition. Pearson/Addison-Wesley. A custom version (new cover, identical book) is at the bookstore for \$106.75 and is bundled with an access code to MyEconLab. MyEconLab has a searchable e-book, tests, and additional solved homework problems. See <http://pearsonmylabandmastering.com/educators/support/> for more information and Lascola, Alix Alix.Lascola@Pearson.com for a demonstration.

Mark Machina's Econ 100ABC Math Handout

Topic Outline

1. Review of Efficiency

2. Externalities

3. Public Goods

4. Monopoly

- Sources of monopoly power
- Monopolist's profit max
- Deadweight loss from monopoly
- Price discrimination

5. Game Theory

- Dominant Strategies
- Static, dynamic, subgame perfection, and repeated games

6. Oligopoly

- Cournot
- Stackelberg
- Bertrand

7. Economics of Information

- Asymmetric Information
- Signaling and Screening
- Moral Hazard