

## Intermediate Microeconomics: Econ 2101 (01&02)

**The Subject.** This course goes beyond Microeconomic Principles by treating some topics more rigorously and covering additional topics. The course has three goals: 1) develop analytic concepts and tools used in various micro-oriented economics courses (such as industrial organization, international trade, labor economics, and public finance); 2) convey a unified way of thinking about economic issues — specify the relevant objectives and constraints facing economic agents, and their resulting optimal choices; and 3) help understand when a laissez-faire market economy works well, and other circumstances where government intervention may potentially improve performance.

**Prerequisites & Mathematical Requirements.** Micro Principles and Calculus 1 (Math 035) are prerequisites. The textbook has a mathematical appendix covering the relevant math, and I will post 1-2 additional math review items. A few calculus rules are used repeatedly, so get comfortable with them.

### Course Requirements & Weight in Overall Grade:

<u>Item</u>	<u>Weight</u>	<u>Date</u>
Exercises	15%	almost weekly
Mid-Term 1 (in ICC 103)	20%	<b>Oct 3</b> Tuesday, regular class time
Mid-Term 2 (in ICC 103)	25%	<b>Nov 2</b> Thursday, regular class time
Final (room TBA)	40%	<b>01 (2pm class) - Dec13 W 4-6; 02 - Dec15 F 12:30-2:30</b>

The Exercises reinforce and extend your understanding of the material. Feel free to work in groups, but write your answers individually. Exercises turned in after the due date will get no credit, but we will drop your scores on the lowest three exercises.

- There will be *no make-up exams*. If you miss a mid-term, its weight will be shifted proportionately to the remaining exam(s).
- In exceptional cases, I will give credit for class participation.
- My grade distribution tracks the Economics Department's guidelines broadly (*but not slavishly*). (For intermediate level courses: 50% of the class A/A-, 45% B+ to B-, 5% C or below.)

**Honor Code.** A student found to have violated the Georgetown Honor Code will receive a grade of F, in addition to any penalties imposed by the Honor Council: <http://gervaseprograms.georgetown.edu/honor/>  
The exams are 'closed book' — mobile devices and notes are *not allowed* during exams.

**Lectures & Recitations.** Attending lectures is “an offer you can't refuse”—my exam questions are mainly based on lectures, and it's far more efficient to absorb the material from lectures than trying to reconstruct it from someone else's notes or the book. You will also be enrolled in a recitation that meets once a week for 50 minutes, taught by a knowledgeable TA who will review the exercises, answer your questions on material from lectures, and present additional material. Attending recitations is strongly recommended.

**Readings.** The required textbook is: David Besanko and Ronald Braeutigam, *Microeconomics*, 5<sup>th</sup> Ed., Wiley 2014 (“BB”). To better track the lectures, read only the assigned page #s. (The 6<sup>th</sup> edition is not worth the extra cost.) All other items and announcements will be posted on **Canvas**.

Note: (#) at right indicates approximate number of classes for that topic.

0. Introduction and Math Review: on your own and in recitations early in the course (0)  
BB ch. 1 (pp. 1-20) – analyzing economic problems  
Math Review slides (1-43) or BB Mathematical Appendix (pp. 739-41, 744-55).  
*Note:* the handout “Math for 101” lists the specific math topics and corresponding slides/pages

**CONSUMER DECISIONS (10)**

1. Consumer Preferences: Indifference Curves and Utility Functions (3)  
BB ch. 3
2. Affordable Bundles: Linear Budget Constraint and Extensions (1)  
BB ch. 4.1: pp. 105-112; pp. 133-4 – quantity discounts
3. Consumer’s Optimal Choice: Interior vs. Corner Solutions (1.5)  
BB ch. 4.2: pp. 112-122
4. Applications (0.5)  
BB ch. 4.3: pp. 123-8 – restricted vs. unrestricted aid; joining a club  
BB ch. 4.4: pp. 134-9 – revealed preference
5. Substitution & Income Effects of Change in Price, and Consumer as Potential Seller (3)  
BB ch. 5.2: pp. 164-175 – substitution and income effects; ch. 5.6: pp. 195-8 – CPI bias  
BB ch. 5.5: pp. 189-195 – labor supply  
BB ch. 4.3: pp. 128-132 – borrowing vs. lending (and MS note, Intertemporal Choice)  
BB ch. 4, Appendix 2: pp. 146-151 – discounting & present value (*in recitations*)
6. Demand Curve and Consumer Surplus (1)  
BB ch. 5.1: pp. 152-64 – deriving individual’s demand curve  
BB ch. 5.4: pp. 184-6 – market demand  
BB ch. 5.3: pp. 175-7 – consumer surplus  
(pp. 174-84 are optional – compensating & equivalent variations)

**PRODUCER DECISIONS (2)**

7. Production: Technology, Input Mix for Cost Minimization, Cost Curves (1)  
BB ch. 6: pp. 204-8, 214-23 – production functions, convex isoquants, MRTS  
BB ch. 7: pp. 257-62 – isocost lines, cost minimization (long run)  
BB ch. 7: pp. 273-77 – costs in short run (*in recitations*)  
M. Schwartz notes: Production and Costs in Short Run (5 pp – review of Micro 001)
8. Profit-Maximizing Output Level, Competitive Firm’s Supply Curve, Producer Surplus (1)  
BB ch. 9: pp. 338-40, 343-9 – competitive firm’s short-run supply curve  
BB ch. 9: pp. 349-53 – short-run market supply curve and competitive equilibrium  
BB ch. 9: pp. 377-9 – producer surplus

**ECONOMIC EFFICIENCY & COMPETITIVE EQUILIBRIUM (4)**

9. Partial Equilibrium: Market Efficiency and Distortionary Government Interventions (3)

- BB ch. 10: pp. 392-394 – efficiency of competitive equilibrium (will add class notes)
- BB ch. 10: pp. 394-404 – taxes & subsidies
- BB ch. 10: pp. 405-417 – price controls; pp. 417-21 – output quotas
- BB ch. 10: pp. 426-435 – import quotas & tariffs

10. General Equilibrium: Pure Exchange Economy (1)

- BB ch. 16: pp. 675-82 – Edgeworth box, efficient allocations, competitive equilibrium

**EXTERNALITIES & PUBLIC GOODS (2)**

11. Externalities: Potential Inefficiencies, Government Interventions, Private Solutions (1.5)

- BB ch. 17: pp. 703-28

12. Public Goods: Efficient Level and Free Rider Incentive (0.5)

- BB ch. 17: pp. 728-33

**UNCERTAINTY AND ASYMMETRIC INFORMATION (4)**

13. Uncertainty

- BB ch. 15.1-15.3: pp. 610-27 – describing & evaluating risky outcomes, insurance demand

14. Asymmetric Information: Inefficiencies from Adverse Selection and Moral Hazard

- BB ch. 15.3: pp. 627-33 – asymmetric information in insurance markets
- M. Schwartz, ‘Lemons’: Adverse Selection and Contraction of Trade

**DEPARTURES FROM PRICE-TAKING BEHAVIOR (4)**

15. Monopoly (1.75)

- BB ch. 11.1-11.3: pp. 442-60 – single-price monopoly; 11.5-11.6: pp. 473-75 – welfare effects
- BB ch. 12.1, 12.2: pp. 491-98 – price discriminating monopoly (introduction & perfect disc’n);
- ch. 12.4: pp. 505-11 – direct discrimination, linear prices; (I’ll discuss indirect disc’n in class)

16. Oligopoly (0.75)

- BB ch. 13.2: pp. 537-40 – homogeneous-products: Cournot competition

17. Introduction to Game Theory and Strategic Behavior (1.5)

- BB ch. 14.1: pp. 577-586 – one-shot games, dominant strategies, Nash equilibrium
- BB ch. 14.3: pp. 594-600 – sequential games and value of strategic commitments
- BB ch. 14.2: pp. 588-593 – repeated games