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Office hrs: T, Tr 4-5:15  
& by appointment

## Intermediate Microeconomics: Econ 101

**The Subject.** This course goes beyond Microeconomic Principles by treating some topics more rigorously and covering additional topics. The course has three goals: 1) to develop analytic concepts and tools used in various micro-oriented economics courses (such as industrial organization, international trade, labor economics, and public finance); 2) to convey a unified way of thinking about economic issues that specifies the relevant objectives and constraints facing economic agents, their resulting optimal choices, and equilibrium outcomes; and 3) to 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. I will stress the intuition behind various concepts and use graphs extensively, but also calculus. The textbook has a mathematical appendix covering all the math you'll need. I will also post slides (with thanks to Prof. Vroman) titled Math Review based on the appendix in Varian's book.

### Course Requirements and Weight in Overall Grade:

<u>Item</u>	<u>Weight</u>	<u>Date</u>
Exercises	10%	almost weekly
Mid-Term 1 (usual class room)	20%	<b>Oct 3</b> Thursday, regular class time
Mid-Term 2 (usual class room)	30%	<b>Oct 31</b> Thursday, regular class time
Final (room TBA)	40%	<b>Dec 19</b> Thursday, 9-11 am

The Exercises reinforce and extend your understanding of the material. Feel free to work on them 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 transferred proportionately to the remaining exam(s).
- In exceptional cases, I will give credit for class participation.
- My grade distribution tracks broadly (but not slavishly) the Economics Department's guidelines. (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/>

**Lectures & Recitations.** Attending lectures is “an offer you can't refuse”—most of my exam questions are 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*, 4<sup>th</sup> Ed., Wiley 2011 (“BB”). The 3<sup>rd</sup> Ed. is quite similar, but the page #s listed below under various topics refer to the 4<sup>th</sup> Ed. (so if you use the 3<sup>rd</sup>, be sure to locate the corresponding pages). To better track the lectures, read only the assigned page #s. All other items and announcements will be posted on **Blackboard**.

Note: (#) at right for each heading 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. 1-15) – analyzing economic problems  
Math Review slides (1-43) or BB Mathematical Appendix (pp. 729-31, 734-45).  
*Note:* the specific topics and corresponding slides/pages are listed on the sheet “Math for 101.”

**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. 103-110; pp. 131-2 – quantity discounts
3. Consumer’s Optimal Choice: Interior vs. Corner Solutions (1.5)  
BB ch. 4.2: pp. 110-120
4. Applications (0.5)  
BB ch. 4.3: pp. 121-6 – restricted vs. unrestricted aid;  
BB ch. 4.4: pp. 132-8 – revealed preference
5. Substitution & Income Effects of Price Changes, and Consumer as Potential Seller (3)  
BB ch. 5.2: pp. 162-173 – substitution and income effects; ch. 5.6: pp. 192-4 – CPI bias  
BB ch. 5.5: pp. 187-191 – labor supply  
BB ch. 4.3: pp. 126-130 – borrowing vs. lending (and MS note, Intertemporal Choice)  
BB ch. 4, Appendix 2: pp. 144-9 – discounting & present value (in recitations)
6. Demand Curve and Consumer Surplus (1)  
BB ch. 5.1: pp. 150-162 – deriving individual’s demand curve  
BB ch. 5.4: pp. 182-6 – market demand  
BB ch. 5.3: pp. 173-4 – consumer surplus  
(pp. 175-81 are optional – compensating & equivalent variations)

**PRODUCER DECISIONS (2)**

7. Production: Technology, Input Mix for Cost Minimization, Cost Curves (1)  
BB ch. 6: pp. 200-3, 210-9 – production functions, convex isoquants, MRTS  
BB ch. 7: pp. 253-60 – isocost lines, cost minimization (long run)  
BB ch. 7: pp. 269-72 – costs in short run  
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. 332-45 – competitive firm’s short-run supply curve  
BB ch. 9: pp. 345-9 – short-run market supply curve and competitive equilibrium  
BB ch. 9: pp. 370-4 – producer surplus

- ECONOMIC EFFICIENCY & COMPETITIVE EQUILIBRIUM (3)**
9. Partial Equilibrium: Market Efficiency and Distortionary Government Interventions (2)  
 BB ch. 10: pp. 389-90 – efficiency of competitive equilibrium (will add class notes)  
 BB ch. 10: pp. 390-99 – taxes & subsidies  
 BB ch. 10: pp. 400-13 – price controls; pp. 413-7 – output quotas  
 BB ch. 10: pp. 422-31 – import quotas & tariffs
10. General Equilibrium: Pure Exchange Economy (1)  
 BB ch. 16: pp. 669-76 – Edgeworth box, efficient allocations, competitive equilibrium
- EXTERNALITIES & PUBLIC GOODS (2)**
11. Externalities: Potential Inefficiencies, Private Solutions, Government Interventions  
 BB ch. 17: pp. 697-719
12. Public Goods: Efficient Level and Free Rider Incentive  
 BB ch. 17: pp. 719-23
- UNCERTAINTY AND ASYMMETRIC INFORMATION (4)**
13. Uncertainty  
 BB ch. 15.1-15.3: pp. 604-23 – describing & evaluating risky outcomes, insurance demand  
 BB ch. 15.4: pp. 627-33 – decision trees and value of information
14. Asymmetric Information: Inefficiencies from Adverse Selection and Moral Hazard  
 BB ch. 15.3: pp. 623-7 – asymmetric information in insurance markets  
 M. Schwartz, Notes on Asymmetric Information  
 M. Schwartz, ‘Lemons’: Adverse Selection and Contraction of Trade
- DEPARTURES FROM PRICE-TAKING BEHAVIOR (5)**
15. Monopoly (2)  
 BB ch. 11.1-11.3: pp. 438-63 – single-price monopoly; 11.5-11.6: pp. 469-74 – welfare effects  
 BB ch. 12.1, 12.2: pp. 485-94 – price discriminating monopoly (introduction & perfect disc’n);  
 ch. 12.4: pp. 501-4 – direct discrimination, linear prices; ch. 12.4: pp. 504-12 – screening
16. Introduction to Game Theory and Strategic Behavior (1.5)  
 BB ch. 14.1 (pp. 571-584) – one-shot games, dominant strategies, Nash equilibrium  
 BB ch. 14.2 (pp. 584-590) – repeated games  
 BB ch. 14.3 (pp. 590-596) – sequential games and value of strategic commitments
17. Oligopoly (1.5)  
 BB ch. 13.2: pp. 533-43 – homogeneous-products: Cournot & Bertrand models  
 BB ch. 13.4: pp. 549-57 – differentiated-products