DUKE UNIVERSITY
DEPARTMENT OF ECONOMICS
FALL 2015
ECONOMICS 201D: INTERMEDIATE MICROECONOMICS

Instructor: Prof. Martin Zelder
Office: Social Sciences 206
Office hours: Tu 4-5:30 pm; Th 1:30-3 pm; F 4:30-5:30 pm; and by appointment
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Class schedule: MWF 3:05-4:20 pm, Bryan Center Griffith Theater (plus discussion section time selected by you)
Head TA: Tedi Skiti (tedi.skiti@duke.edu)

This course is a rigorous but largely non-mathematical development of the foundational concepts in microeconomics (the study of human behavior) and is accessible to economics and non-economics majors alike. The course has 3 aims:
(1) To develop the economic way of thinking that underlies all of life;
(2) To build a foundation for those of you interested in taking further economics class beyond this one, in particular Economics 205D;
(3) To provide a sense of the types of math tools (without basing your grade in this class on them) that lie beneath the logical and graphical models that are the basis of this class.

COURSE OUTLINE (readings from Nechyba textbook, option (i) or (ii), described below under “Textbook”)
Note: There is not a strict calendar specifying when certain topics will be covered, although we will cover them in the order below and I will announce what will be covered when 1 week ahead of time.
1. Introduction: Chapter 1
2. Consumers—Budgets and Choice
   - Budgets: Chapters 2A, 3A
   - Indifference Curves and Tastes: Chapter 4A
   - Tastes and Optimization: Chapter 5A, 6A
   - Income and Substitution Effects: Chapter 7A
3. Consumer Demand and Supply Curves
   - Consumer Demand: Chapter 9A.1, 8A.1
   - Labor Supply: Chapter 9A.2, 8A.2
   - Borrowing and Lending Demand and Supply: Chapter 9A.3, 8A.3
4. Firms That are Perfectly Competitive—Production, Costs, Profit Maximization
   - Single-Input Production and Costs: Chapter 11A.1, 11A.5.1
   - Single-Input Profit Maximization and Output Supply: Chapter 11A.2-4, 11A5.2-3
   - Two-Input Production and Costs: Chapter 12A.2
   - Two-Input Cost Minimization: Chapter 12A.3
   - Two-Input Profit Maximization: Chapter 12A.1, 12A.4
5. Output Supply Curves for Perfectly Competitive Firms, Short-Run and Long-Run
   - Costs in Short-Run and Long-Run: Chapter 13A.1
   - Supply Curves in Short-Run and Long-Run: Chapter 13A.2
   - Firms’ Input Demand Curves in Short-Run and Long-Run: Chapter 13A.3
6. Equilibrium and Elasticities
   - Short-Run Equilibrium: Chapter 14A.1
   - Long-Run Equilibrium: Chapter 14A.2
   - How Markets Respond to Changes: Chapter 14A.3-4
7. Firms and Markets That are Not Perfectly Competitive
- Monopoly: Chapter 23A.1.1-3, 23A.2-3
- Game Theory: Chapter 24A
- Oligopoly: Chapter 25A
- Monopolistic Competition: Chapter 26A

8. Normative Economics
- Defining the Social Optimum: Chapter 15A.3, 15A.1-2
- Why There Are Deviations from the Social Optimum: Chapter 15A.4
- The Cost of Deviations from the Social Optimum—Deadweight Loss: Chapter 10A

9. Analyzing Deadweight Loss from Different Sources—Government Failure, Market Failure
- Government Failure
  - Price Floors and Ceilings: Chapter 18A.2-3
  - Taxation: Chapter 19A
  - Restrictions on Trade: Chapter 20A
- Market Failure—Instances We’ve Already Seen
  - Monopoly: Chapter 23A.1.4-5, 23A.23A.1.2
  - Other Non-Competitive Markets: Chapter 24A.3, 25A.2.2

10. Other Sources of Market Failure
- Externalities: Chapter 21A
- Asymmetric Information: Chapter 17.A.1, 17A.2.1-3, 22A
- Public Goods: Chapter 27A

11. Some Applications of Economics
- Intellectual Property
- Divorce
- Fairness
- Sexual Behavior

Note: A few short readings may be added to this, and some of the listed readings and topics may not end up being covered.

Prerequisites: Introductory economics (either at Duke, another university, or high school/AP). While introductory calculus is also a formal prerequisite for this class, you will not be required to use it in this class.

Textbook: Choose one of the following two books:
(i) Microeconomics: An Intuitive Approach with Calculus, Thomas J. Nechyba, South-Western/Cengage Learning, 2011
or
The latter (i.e., (ii)) is essentially a subset of the former (i.e., (i)). If you choose option (i), you will notice that chapters are divided into “A” and “B” parts, with the math developed in the “B” parts. If you choose option (ii), you are essentially getting only the “A” parts. Material for this course will come from the “A” parts, with some occasional reference to the “B” parts. If you plan to go on in economics, option (i) is recommended; if you plan to end your studies of economics with this course, option (ii) is recommended. You can buy either one directly (at a discount) from the publisher at www.cengagebrain.com. (At this site, you also have the option to rent the textbook or to buy electronic access at a reduced price.) The text comes with access to a website (called LiveGraphs) that is packaged with your purchase of the text; if you have a used copy of the text, you can purchase separate access to LiveGraphs.

Contacting Me: There are two effective ways to do this:
(1) In person: (a) I will stay in the lecture hall for 10 minutes or so to answer simple/quick questions right after lecture; (b) For longer, more involved questions, I have office hours (in Social Sciences 206) scheduled for
Tu 4-5:30 pm; Th 1:30-3 pm; F 4:30-5:30 pm; (c) If you are having bigger issues that you would like to discuss individually, please e-mail me (martin.zelder@duke.edu) to make an appointment.

(2) By e-mail (martin.zelder@duke.edu): I will respond to e-mails pretty rapidly, although given the relatively large size of the class, there may sometimes be delays in this. The Piazza online forum will also be available (later in the semester) for posting questions and answers.

**Contacting the TAs:** I encourage you to develop a relationship with your TA in order to call upon him or her for assistance. TA office hours will be posted as soon as we have them organized. During the weeks of exams, we will have additional office hours to help you prepare.

**Lectures:** The course will begin with traditional lectures but will eventually have some “flipped classroom” features; i.e., you will be assigned some short videos (‘pre-lectures’) to be watched prior to class to enable us to build on this material during the class meetings. During some lectures, I will be presenting Special Applied Problems that are not contained in the textbook or the lecture slides.

**Sections:** These meet once a week, led by the TAs, and are very useful. At these sessions, the TAs will answer questions about the exams, problem sets, and lectures. This gives you a chance to ask detailed questions to improve your understanding of the material. (You are not restricted to attend only the section for which you are registered, and can attend a different one or even more than one.) Discussion sections start meeting on Monday Sept. 7.

**Homework:** Homework problems will typically be posted and announced by e-mail on Thursdays. They will typically be due at the beginning of the Friday lecture that is 8 days later. Following that lecture, solutions will be posted, and the answers to more challenging problems will be covered in sections (as noted above) and in lecture on occasion. Devoting serious effort to the homework is probably the single best way to study for this course, as doing so will help you realize real complexities in the course material which otherwise can look deceptively easy. (You may work on homework with other students, but each individual student should turn in his or her own paper.) At the same time, the homework problems won’t be stringently graded. Instead, we will keep a record of who handed them in and the apparent effort expended, with students exerting greater and more consistent efforts eligible to get their final course grade increased if they are close to a cutoff for a higher grade. Students can fail to hand in 2 of the homework assignments and still be eligible for this favorable treatment (based on performance on the homeworks that are handed in). In order to ensure that you have a copy of your own homework answers to use in studying for exams, I recommend that you make a copy of your answers prior to handing them in.

**Grading:** Each student's course score will be calculated by three methods, and the higher of the three will be used as the total score T. In each method, your average on problem sets (P) will count for 10 percent. In the first method, the two midterm exam grades (M1 and M2) will count for 25 percent each, and the final exam (FE) counts for 40 percent. In the second and third methods, the lower midterm exam grade will be dropped and the final exam grade will count for 65 percent. The 3 methods are summarized as:
- \[ T_1 = .1P + .25M1 + .25M2 + .4FE \]
- \[ T_2 = .1P + .25M1 + .65FE \]
- \[ T_3 = .1P + .25M2 + .65FE \]

For each of you, I will calculate and compare \( T_1, T_2, \) and \( T_3, \) and choose the one that is highest.

The curve for the course will be applied at that point, with the ultimate median grade expected (but not guaranteed) to be close to the B+/B+ borderline.

There are no make-up exams – if you miss a midterm exam, it will be dropped automatically under the second/third methods. Early exams can be arranged for students who face special circumstances. In the case of a missed final exam, the procedure is to have the student to take the final exam the following semester (when the course is offered again).

**Exam times, places, and coverage:**

Midterm 1: Monday September 28, 3:05-4:20 pm, Bryan Center Griffith Theater [includes all material covered through the end of class on Monday Sept. 21]

Midterm 2: Friday October 30, 3:05-4:20 pm, Bryan Center Griffith Theater [includes all material covered starting Wednesday Sept. 23 through the end of class on Friday Oct. 23]
Succeeding in Econ 201:
To increase your chances of doing well in this class, I recommend:

(1) Go to class. Go to discussion section. Why? After all, I don’t take attendance and won’t be giving quizzes. The main reason to go to class: because spending 1 hour in class will typically save you much more than 1 hour outside of class. A second reason: in class, I will be covering Special Applied Problems that are not directly covered in the textbook or in the lecture slides.

(2) Plan to stay on top of the material in this course because the material builds. You cannot understand lecture 5 without understanding lectures 1 through 4. Students who fall behind do poorly in this course, and this problem is probably more acute in this class than in many others.

(3) Teamwork helps many students. You can learn much from your peers—whether you teach them or are taught by them—as you struggle through homework problems and as you study. We therefore strongly recommend forming study and homework groups.

(4) Take the homeworks seriously. The material we cover can seem deceptively simple, and only in working with the material can you typically learn it at sufficient depth to do well on exams. In addition, we strongly recommend that you work through some of the within-chapter exercises as you read the chapters – they are intended for you to work immediately with concepts as you read about them. Answers to the within-chapter exercises can be found in the on-line Study Guide.

(5) Don’t panic when you encounter a question and you don’t immediately know the answer. The course is trying to develop a way of thinking through problems—not just knowing the answers. Concentrate on developing strategies for approaching problems rather than just writing answers.

(6) If you find yourself falling behind, get help by asking questions: during our class time, and outside of class of me, of TAs, in sections, of peers, and through the Piazza forum.