## Eco201D – Intermediate Economics I – Fall 2016 Professor Thomas Nechyba, 230D Gross Hall (nechyba@duke.edu) Professor Bentley Coffey, 101G Gross Hall (bentley.coffey@duke.edu) Head TA: Chelsea Garber (chelsea.garber@gmail.com)

Economics 201D is the first of three Intermediate level economics courses that together form the core economic theory courses for economics majors at Duke. It is a rigorous but largely non-mathematical development of the foundational concepts in microeconomics and is broadly accessible to economics and non-economics majors alike. While it emphasizes intuitive and graphical modeling techniques, it also begins to introduce students to some underlying math in preparation for a more complete mathematical treatment of the topics in Economic 205. Our goal here is threefold: First, to continue to develop a way of thinking that underlies all economic analysis – a way of thinking that is independent of math skills and broadly applicable to many facets of life in business, politics as well as personal decision making. Second, we are building a foundation for those of you who choose to go on in economics to better integrate economics with the more technical tools you will be developing in the next two courses. And third, as part of this building process, we begin to give you a sense of the types of math tools that lie beneath the graphical models typically presented in an intermediate microeconomics course.

**Prerequisites:** Introductory Economics. Calculus is a co-requisite, but you will not be required to use it in your work for this course.

Textbook: You can choose one of the following two textbooks for the course:

Microeconomics: An Intuitive Approach with Calculus, Cengage Learning, 2<sup>nd</sup> Edition, 2017 or Microeconomics: An Intuitive Approach, Cengage Learning, 2<sup>nd</sup> Edition, 2017.

The latter is essentially a sub-set of the former. If you get the larger book with calculus, you will notice that chapters are divided into A- and B-parts, with the math developed in the B-parts. If you get the second smaller book, you are essentially getting the first book with the B-parts removed. (There are some exceptions to this, but essentially this is the difference between the books). Material for this course will come primarily from the A-parts of the larger book, with some occasional reference to the B-parts. If you plan to go on in economics, it is recommended that you get the larger text with calculus; if you plan to end your studies of economics with this course, the second (smaller) text is sufficient.

The bookstore only has the more comprehensive text with calculus available, but you can buy either directly (at a discount) from the publisher at <u>www.cengagebrain.com</u>. At this site, you also have the option to buy electronic access on a Cengage platform called "MindTap" at a reduced price. With the print version, you get automatic access to MindTap which includes a number of features including animated versions of all the graphs in the text.

- "Lectures": Our class time will be spent with a mix of traditional lectures and more "flipped classroom" time devoted to working together on exercises that apply the material. To enable us to do the latter, we will often ask you to watch brief video modules prior to class. These will be posted at least two days before the class during which we use the material of the module.
- Animated Graphs: We have developed dynamically evolving computer graphics for the text and the course. These are available inside the MindTap platform developed by the textbook publisher and you have access to when you buy the text or when you purchase access directly without buying the print version. (MindTap also contains the full text of the actual textbook.) We are

also beginning to release test versions of the animated versions of text graphs in the form of apps for mobile devices. During the first week of class, we will post instructions on how to gain access to these beta versions for free.

Sections: Given the heavy emphasis on exercises and applications within the lecture setting, sections can often be viewed more as extended office hours. As such, many of the sections will become strictly optional. At the same time, we may sometimes ask section leaders to cover some material we did not get to in "lectures", or we may do some extra credit experiments in sections during certain weeks. We will let you know during lectures and via the web site each week whether to expect something unusual. Typically, however, sections are good places to work with peers and the help of TAs on homework problems.

You should view your TAs as a channel to voice concerns about the course in circumstances when you feel uncomfortable approaching us directly with such concerns. We will be meeting with all the TAs every week – and in those meetings we look for feedback on how things are going.

**Homework:** Homework problems will typically be posted on Thursday morning. You will have one week to complete the homework problems which are due at the beginning of lecture on the following Friday at which time solutions will be posted, and we will solve some of them together during our "lectures". The purpose of the homeworks is to get you to work hands on with the conceptual material which can look deceptively easy in the abstract but significantly more complex in practice. Taking these homeworks seriously is the single best way to study for this course. For many students, there is a great benefit from working on these homeworks in groups. This is absolutely encouraged, although you still need to write up your answers individually.

In the past, we spent a lot of time grading homeworks individually and then returned them to students in sections. This turns out to be an enormous effort with relatively little payoff for you. Given the large number of students, we were never able to give good feedback on the homeworks themselves but instead relied on the solution sets to let you know where you went wrong. The only reason we asked students to hand in homeworks was to compel students to keep up with the material as we went along. In the end, almost all students received a high average grade on homeworks – which meant that grades were virtually unaffected by whether or not homeworks were averaged into the grades.

We have therefore changed how we handle homework assignments. We will still collect them each week and will keep a record of who handed them in. You may not hand in up to two homeworks without this counting against you in any way. Then, at the end of the term, we will look at the homeworks of those whose course grade (in the absence of homeworks) is close to the borderline of a higher grade. If homeworks were handed in consistently and the quality of the work was good, we will then adjust grades for students who are close to a higher grade upward.

One downside of this system is that, unless you make a copy of your homeworks prior to handing them in, you will only have the solutions sets (but not your own homework answers) to study from as the exams approach. *If you want to have your own homework answers to study from, you therefore need to make a copy of your answers prior to handing them in.* 

- **Office Hours:** 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.
- **Contacting Me:** You should feel free to e-mail us when you have concerns but we urge you to get as much help as possible from TAs, the Piazza forum we have set up for the class, and Sections. We will usually be in class a few minutes early and am happy to stay late for short questions. If there are lots

of questions, we will typically be able to head upstairs in Gross Hall and spend some additional time with students after class (but usually we have scheduled obligations beginning at noon). Given the size of the class and my various administrative obligations at Duke, it may be difficult to schedule individual appointments with us, but the easiest way for you to do so is by sending us an e-mail.

- **Class Quizes/Games/Attendance**: During class times for which you were asked to watch some online material, we will often have a short online quiz on that material. These quizzes will be given on the MobLab platform (which will also allow us to engage you in applied game theory), and we will post instructions on how to access this platform during the first week of class. Your quiz grade together with your class attendance will count for 10% of your overall grade (see below). Your lowest 4 quiz scores will be dropped automatically. Class attendance will be tracked using the Arkaive app (for which we will also post instructions during the first week of class.)
- Grading: Each student's course score will be calculated two ways, and the higher of the two will be used as the final score (prior to extra credit points being added). In the first method, the two midterm exam grades will count for 25% each, and the final exam counts for 40%. In the second method, the lower midterm exam grade will be dropped and the final exam grade will count for 65%. In each method, a "class quiz" score derived from participation at the beginning of each "lecture" will count for 10%. There are no make-up exams if you miss a midterm exam, it will be dropped automatically under the second method. Once the final score is determined, extra credit points are added. We will advertise opportunities to earn extra credit throughout the course. The curve for the course will be applied at that point, with B set as the median grade. We will take homework performance into account. The ultimate median grade then tends to be close to the B+ borderline.

*Cautionary Note*: It takes several days to write a "good" exam for this course. It is for this reason that We cannot write "make-up" exams. We are willing to arrange early exams for students who face special circumstances, but once an exam is given to the class, solutions are posted and we cannot then use the same exam again. For midterm exams, the grading system allows "drops" – but for the final exam, the only way to handle a missed exam is to ask the student to take the final exam the following semester. Deans were initially reluctant to agree to this but appear now to have accepted it as the best solution to excused absences from the final exam.

Succeeding In Econ 201: First and foremost, you should 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 we think this is much more true for this course than for many others you will take. Second, 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. Third, take the homeworks seriously. The material we cover can seem deceptively simple, and it is usually only in working with the material that you 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. Fourth, you should learn to not panic when you do not know the answer to a question after reading the question. 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. Finally, if you find yourself falling behind, get help during our class times, from TAs, in Sections, from peers, and through forums.

<u>COURSE OUTLINE</u> (This is an approximation – we may change some parts of this as the course progresses.)

August WEEK 1 September	29 31 2	Introduction Budgets Indifference Curves and Tastes	Chapter 1 Chapters 2A, 3A Chapter 4A
WEEK 2	5 7 9	Tastes and Optimization Income and Substitution Effects <i>Exercises and Extensions</i>	Chapter 5A, 6A Chapter 7A
WEEK 3	12 14 16	Dead Weight Loss (DWL) from Taxation Consumer Demand and Labor Supply MWTP and DWL Revisited	Chapter 8A Chapter 9A Chapter 10A
WEEK 4	19 21 23	Coffey teaching Nechyba Single Input Production NO CLASS	Chapter 11A.1-4
WEEK 5	26 28 30	Cost Minimization and Supply 2-Input Production <b>Midterm 1 Exam (in class)</b>	Chapter 11A.5 Chapter 12A.1-4
<b>October</b> WEEK 6	3 5* 7	Linking SR and LR Costs Exercises and Extensions NO CLASS	Chapter 13A.1
WEEK 7	10 12 14	FALL BREAK SR & LR Supply and Equilibrium Equilibrium and Welfare	Chapter 13A.2.1, 13A.3.1, 14A.1-2 Chapter 14A.3-4, 15A
WEEK 8	17 19 21	General Equilibrium Elasticities & Price Distorting Policies <i>Exercises and Extensions</i>	Chapter 16A Chapter 18A
WEEIK 9	24 26 28	Taxes and Subsidies Immigration and Trade <i>Exercises and Extensions</i>	Chapter 19A Chapter 20A
WEEK 10 November	31 2 4	Externalities Asymmetric Information/Discrimination <i>Exercises and Extensions</i>	Chapter 21A Chapter 22A
WEEK 11	7 9 11	Monopoly Game Theory I <b>Midterm 2 Exam (in class)</b>	Chapter 23A Chapter 24A
WEEK 12	14 16 18	Game Theory II Oligopoly NO CLASS	Chapter 24A Chapter 25A

WEEK 14	21	NO CLASS	
	23	THANKSGIVING	
	25	THANKSGIVING	
	28	Oligopoly	Chapter 25A
WEEK 13	30	Monopolistic Competition	Chapter 26A
December	2	Public Goods	Chapter 27A
	5	Behavioral Economics	Chapter 29A.1,2
WEEK 15	7	Efficiency and Normative Economics	Chapter 29A.3
	9	Review	Chapter 30
	16	FINAL EXAM, 2PM-5PM	