Bowdoin College
Department of Economics
Fall 2014

ECON 2555: Intermediate Microeconomic Theory

"Economy is the art of making the most out of life"
–George Bernard Shaw

Time & Class Location: T,Th 2:30-3:55, Hubbard 213; 'lab' Friday, 2:30-3:55, Hubbard 213
Professor: Dan Stone
Email: dstone@bowdoin.edu
Office & Office Hours: Hubbard 108; M, W 2:00-3:30. Feel free to just drop in then.
If you'd like to meet and can't make it at those times, don't hesitate to email me to set up an appointment.
QR Tutor: Henry A. Van Zant <hvanzant@bowdoin.edu>
QR Study Session: Sundays (before HWs due), 3-5pm, econ library in Hubbard

Prerequisite: Econ 1101 (intro microeconomics); Math 1600 (single variable calculus).

Course description and learning goals: In Econ 101 you learned how to "think like an economist," standard economic terminology and the main ideas and basic tools (2-D graphs, some algebra) of microeconomic theory (how economic agents make decisions and why markets deliver, or fail to deliver, socially desirable outcomes). The main goal of this course is to solidify and deepen your understanding of these concepts, using more rigorous tools—mainly calculus. To be clear, this class is significantly more mathematically challenging, and focused on theory (rather than applications), than Econ 101. We will continue to focus on neoclassical theory (rational individual choice) for several reasons: 1) it is standard in the field; 2) it is often an accurate descriptive model, especially for experienced agents dealing with high-stakes decisions; 3) it is a useful benchmark regardless; 4) it is simpler than more psychologically realistic models. I also hope that this course will enhance your logical and mathematical reasoning in general, and your understanding of optimization and calculus in particular. Last, we will use MS Excel from time to time, so I hope this course helps to develop your Excel skills, which is very useful in a wide variety of settings.

Book and readings: Serrano, R, Feldman A.M., *A Short Course in Microeconomics with Calculus* is the required textbook. I like this book because it is concise but still both clear and complete—it covers nearly all of the major topics in microeconomic theory, and includes examples, problems worked out step-by-step etc. The book is only "short" in that it focuses on just the essentials (e.g., there are no pictures of chocolates when discussing the demand for chocolates; minimal applications/extensions that would be skipped by 99% of readers/classes anyway). This is helpful in two ways—it makes the book easier for you to read (you don't need to worry about guessing which parts are important—they all are), and makes the book cheaper. Still, the book is a little thin in a couple of areas and it is ideal to draw material from a variety of sources regardless, so I will present additional material at times and provide a few supplemental readings, which are listed further below. 'Short answers to exercises' in the textbook are available here: http://www.econ.brown.edu/faculty/serrano/textbook/Solutions-ShortAnswers.pdf. My favorite econ blogs that I'd recommend and might refer to from time to time

(but don't plan to use for required readings) are: marginalrevolution.com and economistsview.typepad.com.

Teaching philosophy/methods for this course:
Class-time will largely consist of interactive lecture, interspersed with a good number of clicker questions. We might do some group work at times, but we'll be doing more of this during the labs. We'll also throw in a few other activities here and there (e.g. moblab.com).

I say interactive lecture because I encourage you to interrupt me during lecture with questions and comments often—this will usually help to clarify something that others were also wondering about, keep you more engaged, improve your public speaking skills (yes I know, it's not really public speaking, but similar), help me learn from you, and be a nice change of pace (i.e. stop me from doing too much of the talking). If your question is on a topic most appropriately addressed outside of class, I'll let you know.

I use somewhat bare-bones powerpoint slides to guide the lectures (these are my lecture notes), and post the slides to blackboard, but the slides will be <u>incomplete</u>. The slides will only make sense in conjunction with class notes/experience. <u>I recommend that you take notes as if the slides were not going to be posted, and then just refer to them later only if necessary.</u> Some of the material we'll discuss in class is background you won't be tested on; some of the material you need to know will be straightforward and basically common sense; and some is abstract and fairly deep. I will try to go over the background and straightforward parts quickly, assuming you can easily clarify with the book if necessary, and spend more time on the tougher and more interesting material, including going beyond the textbook where I feel it is useful and/or appropriate.

Since learning this material requires active problem solving, some class time (and most of the lab time) will be devoted to working through problems. I will also ask you to work on problems on your own as homework. This will give you feedback on what you know and don't know, and prepare you for tests, where you will also be asked to solve problems on your own, as this is the best way to demonstrate knowledge of the material. Some of the homework problems will be similar to examples from class and lab, and some will ask you to extend the material from class to assess the depth of your knowledge. I will likely put at least one problem from each lab on the homework as extra incentive to take lab problems seriously.

Web/communication/feedback: Most (maybe all) course documents (including slides, homework and test solutions) and grades will be posted to blackboard. In general I'll make announcements/reminders in class, but will also sometimes email you announcements and clarifications of material from class. The main feedback you'll get is your performance on problems in various settings (in class, homework and on tests). I may not reach out to you individually unless I have a particular concern but feel free to email me with questions, stop by office hours, or set up a meeting outside office hours to if you want additional feedback any time.

Assignments and grading: There will be two midterms, a final exam, and homeworks most non-test weeks. HWs/tests will include a limited number of questions on the non-textbook assigned readings. All tentative important dates (for assignments and readings) are on the course schedule below; if any of these need to be changed I'll try to let you know well in advance. You may work on the homeworks with others and/or get help from the tutor, me or others not in the class. <u>You can drop</u>

your lowest hw score, but late hws will not be accepted. Make-up finals/midterms will only be given when you are not able to attend for a verifiable reason, with documentation. You should email me as soon as possible if you require a make-up midterm/final; if you do not you may receive a zero for that test.   Your course numerical grade will be a weighted average as follows:

Homework	15%
Midterm 1	25%
Midterm 2	25%
Final	35%.

Letter grades will be curved based on the numerical grades. Following a policy used in other economics classes here at Bowdoin, final letter grades on the margin (e.g. borderline B+/A-) may be adjusted based on class and lab participation.

Readings:
Bruni, Luigino and Sugden, Robert. "Reclaiming virtue ethics for economics." *The Journal of Economic Perspectives* (2013). http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.27.4.141

Gneezy, Uri and Meier, Stephan and Rey-Biel, Pedro. "When and why incentives (don't) work to modify behavior." *The Journal of Economic Perspectives* (2011).
http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.25.4.191

Hines, James R Jr. 2013. "Income and Substitution Effects of Estate Taxation." American Economic Review, 103(3): 484-88. https://www.aeaweb.org/articles.php?doi=10.1257/aer.103.3.484

Planet Money. "How To Make It In The Food Truck Business." April 27, 2012.
http://www.npr.org/blogs/money/2012/04/25/151365350/how-to-make-it-in-the-food-truck-business

Rao, Justin M and Reiley, David H. "The economics of spam." *The Journal of Economic Perspectives* (2012). http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.26.3.87

Rifkin, J. "The Rise of Anti-Capitalism." *The New York Times*. MARCH 15, 2014.
http://www.nytimes.com/2014/03/16/opinion/sunday/the-rise-of-anti-capitalism.html?_r=0

Surowiecki , J. "Companies with Benefits." The New Yorker. August 4, 2014.
http://www.newyorker.com/magazine/2014/08/04/companies-benefits

Serrano, R, Feldman A.M. *A Short Course in Microeconomics with Calculus.* Cambridge (2013).

Wheelan, C. *Naked Economics.* Norton & Co, New York (2002).

Course schedule
(tentative and subject to change; all readings from Serrano/Feldman unless noted in bold)

4-Sep-14   Syllabus, marginal effects and derivatives

Part I: Consumer Theory
9-Sep-14   Chs 1-2, Preferences and Utility; **Wheelan** ch. 1
11-Sep-14   Ch 3, Budget constraint, optimal choice
16-Sep-14   Ch 4, Demand functions, HW 1 due
18-Sep-14   Ch 5, Labor and capital supply
23-Sep-14   Ch 6, Welfare Econ I, HW 2 due
25-Sep-14   Ch 7, Welfare Econ II
30-Sep-14   Catch-up/review; **Hines**
2-Oct-14   Midterm 1

Part II: Producer Theory and Partial Equilibrium
7-Oct-14   Ch 8, Single-input firm
9-Oct-14   Ch 9, Long run, multiple-inputs
14-Oct-14   Fall break
16-Oct-14   Ch 10, Short run, multiple-inputs
21-Oct-14   Ch 11, Partial equilibrium w perfect competition, HW 3 due
23-Oct-14   Ch 12, Monopoly, monopolistic competition; **Planet Money Food Trucks**
28-Oct-14   Ch 13, Duopoly, HW 4 due
30-Oct-14   Catch-up/review
4-Nov-14   Midterm 2

Part III: General Equilibrium, Market Failure, Game Theory, Information
6-Nov-14   Ch 14, Game theory
11-Nov-14   GT ctd
13-Nov-14   Ch 15, Exchange economy, general equilibrium
18-Nov-14   Ch 16, Production economy, general equilibrium, HW 5 due
20-Nov-14   Ch 17, Externalities, **Rao and Reilly**
25-Nov-14   Ch 18, Public goods, HW 6 due
27-Nov-14   Thanksgiving; **Bruni and Sugden; Rifkin; Surowiecki**
2-Dec-14   Ch 19, Choice under uncertainty
4-Dec-14   Ch 20, Asymmetric information
9-Dec-14   Behavioral economics, **Gneezy** et al, HW 7 due
11-Dec-14   Behavioral ctd/wrap-up

19-Dec-14   **Final exam** (9:00am)