

## Syllabus Economics 9010 (Advanced Microeconomics I)

Fall 2017

Prof. Spencer Banzhaf.  
Georgia State Univ.

This course is intended for PhD students in economics, risk management, finance, real estate, political science, or other related fields. Topics include consumer behavior, "rationality" axioms in economics, risk and uncertainty, producer theory, partial equilibrium, and public goods & externalities.

### Office Hours & Contact

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Office Hours are officially from 1:00-3:00 on Tuesdays. I am available other times by appointment or by chance. Email works for quick logistical questions. I will not answer substantive questions by email. Please telephone or, preferably, come in to see me with such questions.

### Text:

*Advanced Microeconomic Theory*, by Geoffrey A. Jehle and Philip J. Reny, 3rd ed., 2011, Addison-Wesley.

Since you have selected yourselves into a PhD program, no doubt you are the type of person who pursues learning independently. Accordingly, you may want to go outside our textbook for alternative representations of the ideas we're learning. Other recommended books are *Microeconomic Theory* by A. Mas-Colell, M.D. Whinston, and J.R. Green and *Microeconomic Foundations I* by D.M. Kreps.

As references, you will also want to have a good undergraduate intermediate micro text in one hand (e.g. T. Nechyba's *Microeconomics: An Intuitive Approach with Calculus* or *A Short Course in Intermediate Microeconomics with Calculus* by Serrano & Feldman) and a math-for-econ text in the other (e.g. Simon & Blume's *Mathematics for Economists*). New students to economics will also want to have a principles book.

An excellent reference on the web is Martin Osborne's tutorial on math/econ at the Univ. of Toronto (click the <contents> tab at the top):

<http://www.economics.utoronto.ca/osborne/MathTutorial/index.html>.

Finally, there will be other readings assigned or suggested outside the textbook.

### Topics:

About half of the semester will focus on consumer theory, or the "demand" side of supply-and-demand (i.e. chapters 1-2 in Jehle-Reny). We will then cover producer theory, or the supply side, more rapidly (ch. 3). We then will bring supply and demand together in "partial equilibrium" (ch. 4). Finally, we will consider questions in introductory public finance.

### Grades:

Grades will be based on two in-class exams (22.5% each), a final exam (40%), and homework & class participation (15%). If you miss an exam for any reason, the weight of the exam will be transferred to the final.

The final exam is Mon. Dec 11<sup>th</sup> from 10:45 to 1:15 in our normal room.

The core essence of microeconomics is taught in "principles" courses. Mastering the basics is essential for tackling the advanced material in this class. Accordingly, you will be required to pass an exam from our department in principles of microeconomics (the first introductory undergraduate course). The exam will be offered six times during the semester. There are no restrictions on the number of times you take it (up to six). If your highest grade is an 85% or higher, this exam has no effect on your grade. If your highest score is less than 85%, your final grade in this class will be no higher than your grade in the principles exam.

Requests for re-grading exams and homeworks must be made in writing, with an explanation for the appeal. Items will then be re-graded in their entirety, with the possibility of a lower grade.

### Assignments:

Readings and homeworks will be posted on the class webpage (on iCollege).

Study groups are essential to your success in the class and, more importantly, in the comps. You *must* do homework in groups of 4-6 people. I recommend groups with a mix of nationalities and majors.

All students are expected to know the university policy on Academic Honesty:

(<http://www2.gsu.edu/~wwwfhb/sec409.html>)

### Course Learning Outcomes:

The main learning outcome of the course is that students will understand the basic tools of microeconomic theory. Specifically, the student should be able to:

1. understand and utilize the axioms of consumer rationality.
2. understand the relationship between preference orderings, utility functions, and choice functions.
3. solve consumer optimization problems.
4. define and understand duality theory as it applies to consumer theory. This includes Marshallian demand and indirect utility and Hicksian demand and the expenditure function.
5. understand firms' choice of outputs and inputs, and understand duality as it applies to producer theory (profit maximization, cost minimization).
6. understand individual welfare measures (Marshallian and Hicksian surpluses).
7. understand firms' behavior in competitive and non-competitive conditions.
8. understand the basic rules for the optimal provision of public goods

Disclaimer: The course syllabus provides a general plan for the course; deviations may be necessary.