Econ 3023 Microeconomic Analysis

COURSE SYLLABUS

Instructor: Hiroki Watanabe*

Spring 2013

The following is a contract between you and me for this course and contains important information. Read it carefully and let me know if you have questions or concerns.

1 Course Description & Objectives

This is an intermediate microeconomic class designed for the students who have completed Econ 1023 and seek to develop advanced analytical skills in microeconomics. Students are expected to learn how to analyze and solve problems as the economists do. The basic game plan is

1. to revisit and reevaluate the ideas we have learned from 1023 in a more rigorous manner and see how much we can say about the modern economy from theoretical perspectives, and

2. to get you ready for applied microeconomics courses that you might take after this course, including public finance, industrial organization, labor economics, urban economics, and so forth.

The ultimate goal of this course is to understand the first fundamental theorem of welfare economics, which states that the equilibrium is efficient when certain conditions are met. To fully understand the theorem, at least we have to know how supply and demand are derived. We split the course into three parts:

We start off with consumer theory (the blue chapters in section 4 below) and understand how we make consumption decisions, the result of which is summarized in a demand function. Then we will move on to producer theory (the red chapters) to understand how firms make production decisions and how exactly a supply curve is derived. Finally, we put them together (the green chapters) to understand what characteristics does a market equilibrium have and when it is efficient and when it is not.

The prerequisite courses for this course are Econ 1003 or 1022, 1023, Math 1160 or Math 1296. Just as knowledge in French is indispensable when you study French literature, it is imperative that you have at least a basic understanding of calculus. The level of mathematical comprehension that I expect of you to have prior to taking this course is documented in the quiz that I will give out at the first lecture. If it has been a while since you took 1023 or calculus, dig out your lecture notes and keep them handy.

2 Class & Office Hours

Class meets every Monday, Wednesday and Friday from 11 to 12:15 at LSBE 129. The session begins on January 22nd and concludes on May 9th.

All class material will be available on the class web page1.

I will hold my office hours on Tuesdays and Fridays from 10-11 at LSBE 330G. I am happy to answer your question by email if you cannot make it during the office hours. Write "Econ 3023: Rescue on PS3 Q2? etc." in the subject line. Email me as well if you would like to see me outside of the regular office hours.

3 Textbooks

We use two books in our course:


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1http://d.umn.edu/~watanabe/econ3023sp13

The first book is a required supplemental reader for this course. The second book is a textbook our course is loosely based on. You do not have to buy the second book. It covers more topics in detail than we do in class. Please refer to the second book only when you miss a class or need further information on a particular topic. They will be on reserve at the library.

You should be able to solve all the homework problems without the second book. Your prime source of information is the lecture slides and the supplemental reader.

If you find a typo on a lecture slide, let me know. The errata is available on the class webpage. Since the lecture slides are our textbook, it is important that you keep your slides up-to-date especially before doing your homework or getting ready for the exams.

4 Topics

We will cover the following topics (Subject to change. The number corresponds to Varian’s chapter number):

- Prologue
- 2. Budget Constraint (plus Chpt 10*)
- 3. Preferences
- 4. Utility
- 5. Utility Maximization Problem
- 6. Demand
- 8. Slutsky Equation*
- 14. Welfare Effect of Price Change
- 15. A. Aggregate Demand
- 15. B. Elasticity
- 18. Technology
- 19. Profit Maximization Problem
- 20. Cost Minimization Problem
- 21. Cost Curves
- 22. Firm Supply
- 23. Aggregate Supply
- 24. Monopoly
- 25. Monopoly Behavior*
- 26. Oligopoly*
- 16. Equilibrium
- 34. Externalities*
- 36. Public Goods*
- Epilogue

Chapters with an asterisk (*) will be covered only if time permits.

5 Homework & Exams

This class covers a large amount of material. You should be prepared to spend substantial time outside class on homework assignments and preparation for exams.

There are five homework assignments. Turn in your homework in class at the beginning of the lecture on the date specified below. You are encouraged to work on homework in groups, but you have to write up the solution on your own. You can discuss with your classmates but do not write the solution with them. Identical or nearly identical solutions will not get a credit. To get a full credit, you must explain the steps that led to your answer. There will be no credit for the homework submitted past the due time unless you have pre-approved reasons, including a verified illness, family emergencies or job interviews. I cannot extend the deadline if your excuses are along the lines of "I just need more time" or "I forgot the deadline". Notify me at least 24 hours prior to the due time if you have to miss the deadline. This extends to the exams as well. If you are given a deadline extension, do not download the suggested solution before you submit your homework, or you will lose your credit.

We will have two in-class, closed-book exams on the dates specified below. It is advised that you review your class notes and homework problem sets before the exam. Some of the exam questions will be taken from previous homework questions with some modifications. The final exam covers the second half of the course.

I will not offer makeup exams except possibly when there is a scheduling conflict and you will receive a score of zero if you miss them. If you are excused for the reasons stated above, your course grade will depend on your homework grade and the remaining exam you take.

All students are responsible for following the rules outlined in the document regarding the university academic integrity policy. A mere lack of knowledge of the policy does not exempt you from charges of violations against academic integrity.

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2 http://www.d.umn.edu/vcaa/FinalExams.html.
3 http://www.d.umn.edu/conduct/integrity/student.html
6 Important Dates

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7 Attendance

Class attendance is at your discretion. Figure 1 plots last semester’s student performance to help you make an informed decision. Due to the uncontrolled nature of the data, direct comparison between two subgroups are not all accurate but regular attendees have a tendency to perform better than occasional attendees. You should also be well aware that your primary source of information for this course is lecture. The textbook above will not substitute for lecture. It is meant to be used for reference only.

8 Course Grades

Homework counts for 40% of your grade and two exams count 30% for each. There will be no extra credit beyond 100%. Your score will be standardized to account for different levels of difficulties of each problem set and exam. Please refer to the document posted on the class web page regarding my grading philosophy. The exact grade will be based on the weighted standard score computed as follows:

$$x = \frac{4}{5} \sum_{i=1}^{2} x_i - \overline{x}_i + 3 \sum_{j=1}^{2} x_j - \overline{x}_j,$$  

where $x_i, x_j$ denote your homework $i = 1, \cdots, 5$ or exam score $j = 1, 2$, and $\overline{x}_i, \overline{x}_j$ are the mean with the standard deviation $s_i, s_j$. You should be able to compute your current standing from (1) along with the statistic I will post for each homework and exam. If your score is $x = 0$, you are likely to be in the range of a letter grade B.

I reserve the right to boost your grade if you make an exceptional, remarkable contribution in class and downgrade for a misdemeanor.

9 UMD Announcements

Students with Disabilities: It is the policy and practice of the University of Minnesota Duluth to create inclusive learning environments for all students, including students with disabilities. If there are aspects of this course that result in barriers to your inclusion or your ability to meet course requirements – such as time limited exams, inaccessible web content, or the use of non-captioned videos – please notify the instructor as soon as possible. You are also encouraged to contact the Office of Disability Resources to discuss and arrange reasonable accommodations. Please call 218-726-6130 or visit the DR website at www.d.umn.edu/access for more information.

Student Academic Integrity Policy: Academic dishonesty tarnishes UMD’s reputation and discredits the accomplishments of students. UMD is committed to providing students every possible opportunity to grow in mind and spirit. This pledge can only be redeemed in an environment of trust, honesty, and fairness. As a result, academic dishonesty is regarded as a serious offense by all members of the academic community. In keeping with this ideal, this course will adhere to UMD’s Student Academic Integrity Policy, which can be found at www.d.umn.edu/assl/conduct/integrity.
This policy sanctions students engaging in academic dishonesty with penalties up to and including expulsion from the university for repeat offenders.

Student Conduct Code: The instructor will enforce and students are expected to follow the University’s Student Conduct Code (http://www.d.umn.edu/assl/conduct/code). Appropriate classroom conduct promotes an environment of academic achievement and integrity. Disruptive classroom behavior that substantially or repeatedly interrupts either the instructor’s ability to teach, or student learning, is prohibited. Disruptive behavior includes inappropriate use of technology in the classroom. Examples include ringing cell phones, text-messaging, watching videos, playing computer games, doing email, or surfing the Internet on your computer instead of note-taking or other instructor-sanctioned activities.