

Economics 100A –Microeconomics A, Summer II 2014

Aug 4 – Sept 6

Class meetings: 2:00pm - 4:50pm, MW, Solis Lecture Hall (SOLIS), Room 104

Instructor: Dr. Quazi Shahriar Office: Econ 200 Office Hours: MW, 12:30pm-1:30pm
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TA: Erin Troland Office: Sequoyah Hall 237 Office Hours: Th, 1:00pm-2:45pm
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Discussion Section: Thursday, 3:00pm-4:50pm (in the classroom)

Class Web Page: TED

COURSE DESCRIPTION:

As the first of the microeconomic sequence, Econ 100A is designed to teach students how to set up, solve and analyze optimization models and apply these mathematical models to the theory of the consumer (commodity demand, labor supply and consumption/savings). Finally, we examine the fundamentals of decision making under risk and uncertainty.

PREREQUISITES:

Microeconomic principles (Econ 1) and a year of calculus (either Math 10C or 20C or 21C).

REQUIRED READINGS:

1. *Microeconomics: Theory & Application with Calculus* by Perloff, 3rd ed. (ISBN 0133019934).
2. *Math Handout-1*
3. *Math Handout-2* (by Mark Machina), sections A-E (up to page 11)

ADDITIONAL READING:

1. *Microeconomics: An Intuitive Approach with Calculus* by Nechyba, Thomas J., South-Western, Cengage Learning, 2011.
2. Online mathematics tutorial written by Martin Osborne. Look at Chapters 1-6: <http://www.economics.utoronto.ca/osborne/MathTutorial/index.html>

HOMEWORK:

No graded homework will be assigned. Instead, practice problems will be assigned. Some of these practice problems will be discussed during the discussion section. You are encouraged to practice them in advance and ask questions during the discussion. Forming study groups to practice will also be helpful. Please come and talk to me during my office hours if you would like to discuss practice problems with me.

DISCUSSION SECTION:

These mandatory sessions will be conducted by the TA who will answer your questions regarding lectures, the textbook, practice problems and go over quiz/exam solutions. Please attend the discussion section.

QUIZZES: There will be two quizzes. Dates are **not** negotiable.

Quiz 1: Monday, August 11th

Quiz 2: Wednesday, August 27th

EXAMS: There will be one midterm and a cumulative/comprehensive final. Dates are **not** negotiable.

Midterm: Monday, August 18th (in the classroom during regular class meeting)

Final: Friday, September 5th, 3:00pm - 5:59pm, TBA.

GRADES: Quizzes: 20%, Midterm: 35%, Final: 45%. Grades for the course will be curved.

ADMINISTRATIVE ISSUES:

1. If you have a documented disability, please come to talk to me as soon as possible so that I can make suitable accommodations for you. If you believe that you have a disability and desire accommodation, please register with the Office for Students with Disabilities.
2. Students found guilty of academic dishonesty will earn a failing grade for the course. In addition, the Council of Deans of Student Affairs will impose a disciplinary penalty.
3. If you need to miss the midterm for a verifiable medical/legal/sports reason, your course grade will be determined based on the final exam. Failure to notify me promptly that you must miss a midterm will result in a zero grade for that midterm. Unexcused absences will also result in a zero.
4. If you arrive late to an exam, I will allow you to take the exam in the time that remains *as long as no one has turned in his/ her exam and left the room*. Once a classmate has turned in his/her exam, you will earn a zero on the test if you arrive late.
5. After the University add deadline, students with extraordinary circumstances or with documentation of a university error may petition the Department of Economics to add courses. Extraordinary circumstances do not include: not being added to the course from the waitlist, forgetting to add a course, etc. Students with an extraordinary circumstance may submit a completed petition, with a written explanation (and documentation, if applicable) to Sequoyah Hall room 245.
6. You must bring your student ID to all exams.
7. Use of graphing calculators and cell phones during exams are not allowed.
8. Exams are closed book and you may not use any notes.
9. If there is a mistake in calculating your exam score, bring it to my attention by the next class meeting and I will correct it.
10. No bathroom breaks during exams.

SCHEDULE:

There are nine class meetings. Below is a tentative schedule.

<u>Date</u>	<u>Topic</u>
4 Aug.	Mathematical Review #1
6 Aug.	Consumer Preferences: Indifference curves and Utility Functions
11 Aug.	(QUIZ 1 +) Mathematical Review #2 Utility Functions and Demand Functions
13 Aug.	Utility Functions and Demand Functions
18 Aug.	(MIDTERM +) Comparative Statics of Demand

- 20 Aug. Comparative Statics of Demand
- 25 Aug. Comparative Statics of Demand
Supply of Labor: The Labor-Leisure Decision
- 27 Aug. (QUIZ 2 +) Supply of Capital: Consumption-Savings Decision
- 3 Sep. Decision Making under Risk and Uncertainty

READING: Below is a list of the reading for the course. You are expected to keep up with the reading on your own. You are only responsible for sections of the textbook that we talk about in class.

Topic	Chapter
1. Mathematical Review #1 Calculus review Elasticity Level curves of functions	Chs. 1/ Handout-1 Handout-2 (Sec. A, B, C)
2. Consumer Preferences: Indifference curves and Utility Functions Commodities and commodity bundles Utility functions Indifference curves and marginal rate of substitution	Chs. 3.1, 3.2
3. Mathematical Review #2 Solving optimization problems Corner solutions and inequality constraints Scale properties of functions	Handout-2 (Sec. D, E)
4. Utility Maximization and Demand Functions Utility maximization subject to a budget constraint Regular (“Marshallian”) demand curves and demand functions Consumer Welfare and Government programs	Chs. 3.3, 3.4, 4.1, 5.1, 5.4
5. Comparative Statics of Demand Income changes Income-Consumption Locus Engel curves (definition and graphical derivation) Income elasticity (superior, normal and inferior goods, income elasticity and budget shares, relationship between income elasticities of all goods) Price changes Graphical derivation of Marshallian demand Own price elasticity Price elasticity and expenditures Estimating Cross-price elasticity Gross substitutes and gross complements Compensated price changes & compensated (“Hicksian”) demand functions Graphical illustration of a compensated price change Graphical derivation of compensated demand curves Algebraic derivation of compensated demand functions (Cobb-Douglas, Leontief)	Chs. 4.2, 4.3, 4.4

<p>Algebraic derivation of the effect of a compensated price change</p> <p>The Slutsky Equation</p> <p>Expressing each of the three basic changes in terms of the other two</p> <p>Graphical illustration, algebraic formulation and informal proof</p> <p>Giffen goods</p> <p>Consumer's surplus – Equivalent and compensating variation</p>	
<p>6. Supply of Labor: The Labor-Leisure Decision</p> <p>Income-leisure space and the labor-leisure Decision</p> <p>First order conditions for optimal supply of labor</p> <p>Comparative statics: income and substitution effects</p> <p>Backward bending labor supply</p> <p>Kinked budget lines and the over-time decision</p>	<p>Chs. 5.5</p>
<p>7. Supply of Capital: Consumption-Savings Decision</p> <p>Intertemporal income and consumption streams</p> <p>Interest rates and discounted present value of a stream</p> <p>Intertemporal Utility maximization</p> <p>First order conditions and interpretation</p> <p>Comparative statics: income and substitution effects</p>	<p>Chs. 15.4</p>
<p>8. Decision Making under Risk and Uncertainty</p> <p>Expected value</p> <p>Expected utility</p> <p>Risk aversion</p> <p>Demand for Insurance</p> <p>Investment in a Risky Asset</p> <p>Measures of Risk Aversion</p>	<p>Chs. 16.1, 16.2, 16.3, 16.4</p>