

## Economics 410-001

Intermediate Microeconomic Theory

Summer Session II (2017)

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**Instructor:** Zhechen Yu

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**Time and Location:** Monday-Friday, 9:45AM - 10:15AM, Greenlaw Hall-Rm 0301, 06/26/2017-08/01/2017.

**Office Hours:** TBD. Philips Annex 204.

**Prerequisites:** ECON 101; MATH 231 or STOR 113. You should be familiar with the materials and concepts covered in the first half of the introductory economic course, and be comfortable taking derivatives.

**Textbook:** *Microeconomics*, by Besanko and Braeutigam.

**Communication:** Class assignments and course resources will be posted on Sakai. Email is the best way of reaching me outside of class.

**Course Objectives:** The principal goal of this course is to teach you to analyze how agents make decisions. A secondary goal is to help you to develop critical thinking skills that are broadly applicable to other fields of study and professional settings. The four main topics we will cover are consumer theory, producer theory, equilibrium and game theory:

1. *Consumer Theory:* How do consumers choose between the array of goods in the market? How do consumers respond to income and price change?
2. *Producer Theory:* How much output should a firm produce? What is the least expensive way to do so?
3. *Equilibrium:* How are prices determined? How do prices and quantities differ when the market is perfectly competitive versus monopolistic?
4. *Game Theory:* How do outcomes change when agents behave strategically?

**Grading:** Your final grade will be determined by:

1. Participation: 5%
2. Two Midterms: 50% (25% each)
3. Final Exam: 30%
4. Homework: 15%

**Grading Scale:** Final grades will be assigned on the following scale (out of 100)

A	93-100%	C	73-76%
A-	90-92%	C-	70-72%
B+	87-89%	D+	67-69%
B	83-86%	D	60-66%
B-	80-82%	F	<60%
C+	77-79%		

Final grades with decimal points will be rounded to the next integer. Additionally, I reserve the right to move these cutoffs downward to appropriately reflect student's understanding of the material given performance on the exams.

**Homework:** There will be (tentatively) 5 homeworks assigned throughout the session. At the end of the session, I will drop the lowest grade on the homework. Each student must submit a physical copy of his/her own homework at the beginning of class. Late homeworks will not be accepted.

**Exams:** There will be two midterms and a final. The final exam will be cumulative. Final exam will be held on **July 31<sup>th</sup> 8:00 AM in our regular classroom.**

The dates for the two midterms (in class) are July 7<sup>th</sup> and July 21<sup>st</sup>, respectively.

The weight of any missed midterm will be reassigned to the final.

Attending the final is mandatory. The Chair of the Economics Department asks summer instructors not to change the date of a final exam unless the student has a compelling and documented personal reason. In that case, the make-up exam will be administered on a date later than the scheduled final. It will be set at a date and time that is convenient for both student and instructor.

**Class Attendance and Participation:** Class attendance is strongly encouraged. Your participation grade will be determined by attendance and attentiveness in class. I will give in total five ungraded quizzes in five randomly selected days to help determining the attendance. These quizzes also serve the purpose of helping you to understand concepts better.

In order to maintain an atmosphere conducive to learning for all students, neither cellphones nor computers will be allowed in class.

**Honor Code:** All students are expected to abide by the UNC Honor Code. If you are not familiar with the code, you should consult <http://honor.unc.edu> to learn more.

### Course Outline

#### 1. Math Review:

- Basic Calculus
- Constrained and Unconstrained Optimization

#### 2. Consumer Theory:

- Preferences
- Utility Functions
- Budget Sets
- Consumer Choice
- Demand
- Income and Substitution Effects

#### 3. Producer Theory:

- Production Function
- Profit Maximization
- Cost Minimization
- Cost Curves

4. Equilibrium:

- Perfect Competition
- Short-run versus Long-run
- Market Equilibrium
- Monopoly
- Oligopoly

5. Game Theory:

- Basics