Economics 410-002

Intermediate Microeconomic Theory

Summer Session I (2017)

Instructor: Eddie Watkins

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Time and Place: Monday-Friday, 11:30 AM - 1:00 PM, Dey 208. 5/17/2017 - 6/22/2017.

Office Hours: TBD (Time). TBD (Location).

Prerequisites: ECON 101. MATH 231 or STOR 113. You should be familiar with the material and concepts covered in the Microeconomics portion of 101 and be comfortable taking derivatives.

Textbook: *Microeconomics*, Besanko and Braeutigam.

Other Resources: Other books you might find useful, *Intermediate Microeconomics with Calculus*, by Hal R. Varian. *Microeconomics : Theory and Applications with Calculus*, Perloff. *Intermediate Microeconomics-The Science of Choice*, Petranka.

Communication: All class assignments and resources will be posted to Sakai. Email is the best way to reach me outside of class.

Course Objectives: The principal goal of this course is to teach you how 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 4 main sections we will cover are consumer theory, producer theory, equilibrium and game theory.

1. *Consumer Theory*: How do consumers choose between the vast array of goods in the market? How does behavior change when income and prices 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. 2 Midterms: 45% (25% for higher score)

2. Final Exam: 30%

3. Other Assignments: 25%

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

A	93-100%	C	73-76.99%
A-	90-92.99%	C-	70-72.99%
B+	87-89.99%	D+	67-69.99%
B	83-86.99%	D	60-66.99%
B-	80-82.99%	F	<60%
C+	77-79.99%		

I reserve the right to move these cutoffs downward to appropriately reflect student's understanding of the material given performance.

Homework: There will be 5 quantitative homeworks assigned throughout the session (approximately 1 per week). Each student must turn in his/her own homework; however, group work is allowed. Homework is due by the beginning of class. Homework turned in after the start of class but before the end of class will be worth 75% of the points. Later homework will not be accepted.

There will be many, approximately everyday, qualitative homeworks. These are short assignments that are intended to help you think through the underlying logic without entailing the intense calculations of the quantitative homeworks. These assignments will be based on readings and will be due approximately the day before we discuss each topic.

Occasionally I will give in-class quizzes, to test your understanding of the material. These quizzes will be graded on effort. These quizzes serve as a chance for quick feedback of your understanding of the material.

Exams: There will be 2 midterms and a final. The final exam will be cumulative. The date for the final is **June 21st 11:30 AM in our classroom**.
The dates for the midterms (in class) are **May 31st** and **June 14th**.
Missed Exams: There are no make-up midterm examinations. If you must miss a midterm exam, the weight of that exam will be assigned to the final exam. In order to receive this transfer of credit, you must contact me before the start of the missed exam and provide me with an acceptable excuse. If the reason for your absence could not be foreseen, please make the request as soon as possible afterwards. All requests should be in writing and you may be asked to provide support with suitable documentation.
Attendance at the final exam 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. Given the fast pace of summer classes, missing 2 classes is equivalent to missing an entire week during the normal academic year.

You are encouraged to ask questions about the material during class. This will help you understand the material and let me know whether further clarification of a topic is needed.

My goal is to maintain an atmosphere conducive to learning for all students. As such, neither cell phones 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 (Reference in Besanko 5th edition)

Math Review:

- Calculus (Mathematical Appendix)
- Constrained and Unconstrained Optimization (Mathematical Appendix)

Consumer Theory:

- Preferences (Ch. 3)
- Utility Functions (Ch. 3)
- Budget Sets (Ch. 4)
- Consumer Choice (Ch. 4)
- Demand (Ch. 5)
- Income and Substitution Effects (Ch. 5)
- Uncertainty (Ch. 15)

Producer Theory:

- Production Functions (Ch. 6)
- Profit Maximization (Ch. 7)
- Cost Minimization (Ch. 7)
- Cost Curves (Ch. 8)

. **Equilibrium:**

- Perfect Competition (Ch. 9-10)
- Short Run vs Long Run (Ch. 9-10)

- Market Equilibrium (Ch. 2)
- Monopoly (Ch. 11)
- Oligopoly (Ch. 13)

Game Theory:

- Basics (Ch. 14)

Advanced Topics (Time Permitting):

- Potential topics include: Intertemporal Choice (Ch. 4), Applications of Uncertainty (Ch. 15), Risky Assets (Ch. 15), Monopoly Behavior (Ch. 12), General Equilibrium (Ch. 16), Externalities (Ch. 17), Public Goods (Ch. 17), Asymmetric Information