# Econ 410: Microeconomics (4 Credit-course)

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Recitation: (11:45am to 1:00pm, MoWe)

Office: 408 Gardner Class Room: Dey Hall 0203

Class Hours: (9:45am to 11:15am)

## **Course Description**

This course is a four-credit course, which means we will both have regular class and recitation. The objective of this course is to provide the necessary and theoretical foundations to study microeconomics at an intermediate level. Microeconomics is the branch of economics that focuses on the behavior of individual consumers, firms, and markets. In this course, you will learn about the fundamental concepts and principles that underlie microeconomic theory, such as supply and demand, consumer choice, production theory, market structures, and welfare economics. By the end of the course, you should have a solid understanding of these concepts and be well-prepared to tackle more advanced microeconomic topics.

# **Required Materials**

- Course notes available on Sakai.
- Microeconomics by David Besanko and Ronald Braeutiga.

# Prerequisites/Corequisites

Prerequisites: Econ. 101 and one of MATH 152, 231, STOR 112, or 113

# **Course Objectives**

This course meets the "Way of Knowing" focus capacity in the IDEAS in Action Curriculum. Courses in the Ways of Knowing Focus Capacity help you to flex your "seeking to understand" muscle by exposing you to a variety of perspectives and giving you the skills to interrogate assumptions of yourself and others.

Explore a concept from a variety of perspectives which will reveal patterns of thought that you may not be aware exist. Tackle new experiences that teach you how to become more aware of yourself and your beliefs. The course you choose will challenge you to consider what you take for granted and learn to seek out critical information when tackling questions and problems.

From this course, students are expected to learn fully:

- 1. Think and understand the real world based on economic models.
- 2. Recognize and use one or more approach/es to developing and validating knowledge of the unfamiliar world
- 3. Evaluate ways that temporal, spatial, scientific, and philosophical categories structure knowledge.
- 4. Interrogate assumptions that underlie our own perceptions of the world.
- 5. Employ strategies to mitigate or adjust for preconceptions and biases and apply critical insights to understand patterns of experience and belief.

#### **Course Structure**

#### **Class Structure**

 Poll everywhere: During our classes, we will use Poll Everywhere for online polling, and you can access it either through the polleverywhere.com website or the Poll Everywhere mobile app. To log in, you will need to use your official UNC-CH email address and then select the Single Sign-On link. Once you've done that, enter your Onyen and Password to log in.

It is critical to ensure that the email address in your Poll Everywhere profile matches the one listed in the UNC Directory. If the email addresses don't match, your poll scores won't sync to Sakai, which could cause problems. For example, if your email is onyen@unc.edu in the UNC directory but onyen@email.unc.edu in Poll Everywhere, it will not sync correctly. So, if your email addresses don't match, please update your email address in Poll Everywhere to the one listed in the UNC Directory.

Lowest 10% of your In-Class Polls will be dropped. Therefore, students who miss class due to a University Approved Absence can use this policy to avoid a penalty in the attendance.

- 2. **Recitation**: Students are required to attend the recitation after the regular class. During recitation, we will review the course-materials and practice example questions. Any materials during the recitation will be considered to be potential problems in exams.
- 3. **Midterms and Final**: We will have 2 Midterms (07.12, 07.17) and 1 Final ( 08.01). Final exam will be a cumulative exam. Both Midterm and Final exam will be held during the class.. All Midterm and Final exams have both multiple choices and long-form questions.

# **Grading Policy**

The typical UNC grading scale will be used.

The grade will count the assessments using the following proportions:

• In-class Polls participation : <u>5%</u>

• Recitation participation : 10%

• Problem sets (5) : <u>10%</u><sup>1</sup>

• Midterms (2) : <u>40%</u><sup>2</sup>

• Final : <u>35%</u>

<sup>&</sup>lt;sup>1</sup>I will drop your 1 lowest homework grades.

<sup>&</sup>lt;sup>2</sup>Each midterm is assumed to have the equal weights (20%).

### **Course Policies**

### **During Class**

I understand that the electronic recording of notes will be important for class and so computers will be allowed in class. Please refrain from using computers for anything but activities related to the class. Eating and drinking are allowed in class but please refrain from it affecting the course.

### **Attendance Policy**

University Policy: As stated in the University's Class Attendance Policy, no right or privilege exists that permits a student to be absent from any class meetings, except for these University Approved Absences:

- 1. Authorized University activities
- 2. Disability/religious observance/pregnancy, as required by law and approved by Accessibility Resources and Service and/or the Equal Opportunity and Compliance Office (EOC)
- 3. Significant health condition and/or personal/family emergency as approved by the Office of the Dean of Students, Gender Violence Service Coordinators, and/or the Equal Opportunity and Compliance Office (EOC).

### **Class Policy**

Instructors may work with students to meet attendance needs that do not fall within University approved absences. For situations when an absence is not University approved (e.g., a job interview or club activity), instructors determine their own approach to missed classes and make-up assessment and assignments.

### **Grade Appeal Process**

If you feel you have been awarded an incorrect grade, please discuss with me. If we cannot resolve the issue, you may talk to our departmental director of undergraduate studies or appeal the grade through a formal university process based on arithmetic/clerical error, arbitrariness, discrimination, harassment, or personal malice. To learn more, go to the Academic Advising Program website.

#### Policies on Incomplete Grades and Late Assignments

Late assignments will be only accepted for no penalty if a valid excuse is communicated to the instructor before the deadline.

### University Approved Absence Office (UAAO)

The UAAO website provides information and FAQs for students and faculty related to University Approved Absences. **Note:** Instructors have the authority to make academic adjustments without official notice from the UAAO. In other words, it is not required for instructors to receive a University Approved Absence notification in order to work with a student. In fact, instructors are encouraged to work directly with students when possible.

#### **Honor Code**

All students are expected to follow the guidelines of the UNC Honor Code. In particular, students are expected to refrain from "lying, cheating, or stealing" in the academic context. If you are unsure about which actions violate the Honor Code, please see me or consult <u>studentconduct.unc.edu</u>.

#### **Acceptable Use Policy**

By attending the University of North Carolina at Chapel Hill, you agree to abide by the University of North Carolina at Chapel Hill policies related to the acceptable use of IT systems and services. The Acceptable Use Policy (AUP) sets the expectation that you will use the University's technology resources responsibly, consistent with the University's mission. In the context of a class, it's quite likely you will participate in online activities that could include personal

information about you or your peers, and the AUP addresses your obligations to protect the privacy of class participants. In addition, the AUP addresses matters of others' intellectual property, including copyright. These are only a couple of typical examples, so you should consult the full Information Technology Acceptable Use Policy, which covers topics related to using digital resources, such as privacy, confidentiality, and intellectual property. Additionally, consult the Safe Computing at UNC website for information about data security policies, updates, and tips on keeping your identity, information, and devices safe.

### Accessibility Resources and Service

The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with a disability and/or a chronic health diagnosis resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined by the Office of Accessibility Resources and Service (ARS) through their Student and Applicant Accommodations Policy, which documents qualifying disabilities in accordance with applicable state and federal laws. See the ARS website (https://ars.unc.edu) for contact information or email ars@unc.edu.

### Counseling and Psychological Services

UNC-Chapel Hill is strongly committed to addressing the mental health needs of a diverse student body. The Heels Care Network website is a place to access the many mental health resources at Carolina. CAPS is the primary mental health provider for students, offering timely access to consultation and connection to clinically appropriate services. Go to their website https://caps.unc.edu/ or visit their facilities on the third floor of the Campus Health building for an initial evaluation to learn more. Students can also call CAPS 24/7 at 919-966-3658 for immediate assistance.

### Policy on Non-Discrimination

The University is committed to providing an inclusive and welcoming environment for all members of our community and to ensuring that educational and employment decisions are based on individuals' abilities and qualifications. Consistent with this principle and applicable laws, the University's Policy Statement on Non-Discrimination offers access to its educational programs and activities as well as employment terms and conditions without respect to race, color, gender, national origin, age, religion, genetic information, disability, veteran's status, sexual orientation, gender identity or gender expression. Such a policy ensures that only relevant factors are considered, and that equitable and consistent standards of conduct and performance are applied.

### **Diversity Statement**

I value the perspectives of individuals from all backgrounds reflecting the diversity of our students. I broadly define diversity to include race, gender identity, national origin, ethnicity, religion, social class, age, sexual orientation, political background, and physical and learning ability. I strive to make this classroom an inclusive space for all students. Please let me know if there is anything I can do to improve. I appreciate any suggestions.

#### Make-up policy for exam

All due dates are fixed and no extension will be given for both exam and assignments. No make-up midterm will be given. If you miss an exam due to University Approved Absence (https://odos.unc.edu/student-support/class-absences/requestuniversity-approved-absences), then I will reweight your exams by shifting the rest of the midterm weight to the final exam.

# Schedule and weekly learning goals

The schedule is tentative and subject to change.

#### Week 01 (06.26 $\sim$ 06.30)

Topic 1: Consumer Theory

- Goal 1: Review basic math (partial and total differentiation, how to derive a derivative function, ...)
- Goal 2: Understand preference, utility and utility function
- Goal 3: How to set up and solve consumer utility maximization problem

### Week 02 (07.03~07.07)

Topic 2: Consumer Theory and Uncertainty

- Goals 1: Understand different price effects
- Goals 2: Understand uncertainty in good, and a lottery
- Goals 3: What is Expected Utility Theorem, What is a risk type

#### Week 03 (07.10~07.14)

Topic 3: First Midterm (07.12), Producer Theory

- Goals 1: How to derive optimal cost-minimizing production inputs?
- Goals 2: Understand Short-run cost and Long-run cost
- Goals 3: What is a perfect competition market?

#### Week 04 (07.17~07.21)

Topic 4: Second Midterm (07.17), Market structure and equilibrium

- Goals 1: Understand monopolistic market
- Goals 2: Understand difference between perfect-competitive market and monopolistic market

#### Week 05 (07.24~07.28)

Topic 5: Final (08.01), basic Game theory and Oligopoly

- Goals 1: Understand definition and solution of a game, Nash equilibrium, Prisoner's Dilemma and different types of game
- Goals 2: Understand Bertrand, Cournot, and Stakelberg competition