

Economics 410

Intermediate Theory: Price and Distribution

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Summer Session II 2023

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

Credit Hours: 4 credits

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Gardner - Rm 0007

Class Hours: M–F 11:30 am–1:00 pm

Office Hours: M/W 1–2 pm,

Recitation Hours: Tu./Th. 1:30–2:45 pm

Tu./Th. 2:45–3:45 pm

Course Description

The purpose of this course is to explore the foundations of Microeconomic theory, focusing on the behaviors of consumers, producers, and the interaction of these agents in the marketplace. The organization of markets and its implications for firm behavior and market equilibrium are also examined. This course is divided into the following three topics:

- *Consumer theory*: How households make decisions in the face of scarcity and how these decisions vary in response to changes in the economic environment.
- *Firm theory*: How firms make decisions in the face of scarcity and how these decisions vary in response to changes in the economic environment.
- *The organization of markets*: How perfectly competitive and monopolistic markets are organized and the outcomes of these markets.

The principles covered in this course are building blocks. These building blocks can and will be used in elective courses to analyze many specialized topics. This material cannot be learned passively. My major goal is to teach you to "think" in a manner beyond fact recall. I want you to become better quantitative and analytical thinkers. With this aim, I try to be a guide in your learning, not just a lecturer. Active thinking and problem solving are essential parts of this class. *Microeconomic theory is a tool learned best by use!*

Learning Objectives

At the end of this course,

1. Students will become able to solve basic utility maximization problem using Lagrangian method, tangency condition and bang-per-buck approach.
2. Students will become able to differentiate and calculate substitution, income, and total effects both graphically and mathematically.
3. Students will become able to solve basic cost-minimization problems both for the firms operating in the settings of both long-run and short-run.
4. Students will be able to solve basic profit maximizing problems for the firms operating in the cases of perfect competition and monopoly.

Required Materials

- **Sakai** Slides, handouts and additional material for my lectures will be posted on Sakai. Students are expected to follow the To-Do lists posted on Sakai. Assignments will also be posted on Sakai. Many assignments will be submitted online using Sakai. Please check Sakai regularly for updates.
- **Poll Everywhere:** We will use Poll Everywhere for online polling in class. For more information, visit <https://poll.unc.edu/>.
- **Gradescope** Many assignments will be submitted online using Gradescope. I will register you for Gradescope using your UNC email address.
 - You can only submit one pdf file. Make sure that pages are properly oriented and clearly indicate where each problem appears.
 - To submit an assignment, please follow instructions [here](#).
 - To view submissions and interpret the rubric, please follow instruction [here](#).
 - You will receive an email once an assignment has been graded.
- **Textbook:** The recommended textbook is Microeconomics by David Besanko and Ronald Braeutigam. You do NOT have to purchase the most recent version of this textbook. If you would like to rent or purchase a different textbook, most any "Intermediate Microeconomics" textbook will have similar content, and older editions will likely be just as useful as newer additions. In addition, there is a variety of books on reserve through the library, some of which are ebooks.

Class Expectations

- **Regular class attendance is expected and strongly encouraged!** During class, you are expected to engage in class discussions and in-class polls actively.
- **Regular recitation attendance is expected and strongly encouraged!** Recitations will meet on Mondays and Wednesdays. Students should prepare for recitations in advance by attempting the posted recitation problems.
- **As this is a 4-credit class, you should plan to spend at least 5 hours per day on this class, Monday through Friday. This includes time spent before, during, and after class.** It is implausible that studying “a lot” the week before the exam will make up for not studying enough in the weeks preceding the exam. Most ECON410 students realize that this does not work in economics or with how I teach and test. Please follow the To-Do lists posted on Sakai. Consider adopting the study tips presented below on page 9.
- **Understanding both the material from class and solutions to the homework problems is only the first step in mastering the course material!** A major goal of this course is to teach you to think in a manner beyond fact recall, a manner that reflects a higher order level of thinking. I want you to strive for a higher order level of learning. How can you achieve this? Follow the study tips on page 9.

Grading Policy

You can earn up to 100 points throughout the session from the 6 components explained below. I reserve the right to curve the scale dependent on overall class scores at the end of the session. Any curve will only make obtaining a certain letter grade easier. Your course grade will be calculated as the sum of your earned points, and letter grades will be assigned based on the following:

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

- Guided Video Questions (GVQs): max 5 points

There will be 28 Guided Video Question (GVQ) sets. Each will be graded on a pass/fail basis. To pass, your answers must be in your own words, more than half of your answers should be correct, and your answers should be submitted to Gradescope before the relevant class (by 9:45 am on a corresponding day). The GVQs must be done individually. You may not work with others on this course component. Your GVQ points will be calculated based on the proportion of GVQs you pass, up to 25. Note this means I will automatically drop 3 when calculating your points as follows:

$$GVQ \text{ Points} = \min \left(\left(\frac{\#passed}{25} \right) * 5, 5 \right)$$

- Recitations: max 5 points

There will be nine total recitations, during which you will work on short answer questions with your classmates and me. These questions are designed to give you a deeper understanding of course concepts. Each recitation will be graded on a pass/fail basis. To pass, you need to attend the recitation and take note of your attendance. Your recitation points will be calculated based on the proportion you pass, up to 7. Note this means I will automatically drop one recitation when calculating your points as follows:

$$Recitation \text{ Points} = \min \left(\left(\frac{\#passed}{7} \right) * 5, 5 \right)$$

- Class Participation: max 5

There will be 21 total classes during which we will learn by solving and discussing poll questions. Each class will be graded on a pass/fail basis. To pass, you must attend the class and take note of your attendance. Your class participation points will be calculated based on the proportion you pass, up to 20. Note this means I will automatically drop 1 when I calculate your points as follows:

$$Class \text{ Participation Points} = \min \left(\left(\frac{\#passed}{20} \right) * 5, 5 \right)$$

- Problem Sets: max 15 points

There will be 7 problem sets. You must submit your answers to Multiple Choice Questions to Sakai and you should submit your answers to Long Form Questions to Gradescope by the due dates posted here in Syllabus and on a Sakai page. I will drop your lowest problem set before calculating your average, and points will be calculated as follows:

$$Problem \text{ Set Points} = 0.15 * averagescore$$

You may work with other students on these problem sets but sharing answers via group me or other group chat, using previous homework, and looking up answers online are all violations of the [UNC Honor Code](#). Additionally, you are expected to attempt each problem at least once before seeking help.

- **Midterms:** max 40 points
There will be 2 closed-book midterms, each worth 20 points and consisting of 5 short answer questions. You will be proctored during a midterm.
- **Final Exam:** max 30
The cumulative open book final exam will be worth 30 points and consist of 6 short answer questions, worth 3 points each, and 12 multiple choice questions, worth 1 point each. You will be proctored during the final. Per UNC rules, you can only take the final exam at an alternative time if you have an official exam excuse. If you miss the final exam and do not have an excuse from the Dean, you will receive AB or FA depending on your overall performance.

Course Policies

Late and/or Makeup Policy

All due dates are firm, and no extensions or makeups will be given. I completely understand and empathize with the fact that sometimes health and/or personal/family emergencies take priority. Furthermore, sometimes your internet crashes, your computer gets a virus, you get the homework done early but then forget to submit it. It is for all these reasons and more that I have built in at least one drop for each component of the class (except the exams). These drops are meant to cover these “life events,” and so I do not additionally accept late assignments or provide makeup. Making exceptions to this policy for students on a case-by-case basis leads to inequities in how students are assessed, and this is something I try to avoid. I know of no better way to treat students fairly and equally than by applying the same standards and policies to all. With that being said, I do make exceptions in the case of a severe and ongoing issue (i.e. where you must miss a week or more of classes). Please contact the Office of the Dean of Students and then communicate with me as soon as possible so that we can work out a plan for you together.

Makeup Exam Policy

If you miss a midterm and either have a **University Approved Absence** or documentation of a significant health and/or personal/family emergency, then you can choose to have that exam’s weight transferred to the final exam (then final exam would then be worth 50 points). Please email me directly (ivan_suvorov@unc.edu) should you wish to pursue this reweighting option. A make-up final exam will be offered only if you miss a final exam and either have a **University Approved Absence** or the documentation of a significant health and/or personal/family emergency.

Regrade Requests

All regrade requests are expected to be made through Gradescope within 1 week of the date the assignment’s grade is posted. Regrade requests for the final exam are expected to be made within 24 hours of the grade being posted.

Extra Credit

I do not offer extra credit. This is because if everyone knows about it, it's not really extra credit. It's just another assignment. If some people don't know about it (for instance, if a specific student asks for extra credit at the end of the semester), then I'm treating my students differently, which I make every attempt to avoid.

During 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

Attendance is expected in all lectures and recitation sections. In case you are unable to attend the class, you are expected to provide a reason for that by sending an e-mail to ivan_suvorov@unc.edu.

Policies on Incomplete Grades

If an extended deadline is not authorized by the instructor or department, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions), or (b) the end of 12 months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student.

Academic Integrity and Honesty

As a student of the University of North Carolina, you are expected to behave in accordance with the [UNC Honor Code](#). Plagiarism, forgery, unauthorized collaboration, and the use of unauthorized materials are only some of the behaviors that will not be tolerated in this course. If you have any uncertainties about any of your work, please approach me before an assignment's due date. I take academic integrity very seriously and will not hesitate to report any instance where I feel academic integrity has been compromised, either intentionally or unintentionally.

Accommodations for Disabilities

UNC-CH facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the [ARS Website](#) for contact information. Students registered through ARS should send me an email with their accommodations through the ARS portal. I will contact those who receive extended time on exams before the first exam to coordinate. For all other accommodations of which I should be aware, please email me at ivan_suvorov@unc.edu to discuss!

Counseling and Psychological Services (CAPS)

CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their [website](#) or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

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. It is important to me that all members of the class feel supported, respected and included. Please let me know if there is anything I can do to improve. I appreciate suggestions.

Title IX Resources

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Please contact the Director of Title IX Compliance (Adrienne Allison – Adrienne.allison@unc.edu), Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

Study Tips

- Follow the To-Do lists posted on Sakai.
- Come to class prepared! (If not prepared, better come than not come) Skim the relevant assignment before class so you will be familiar with the general idea of what is coming. After class, review what you have just learned.
- When reviewing your notes or the reading assignment, keep a pencil and scratch paper on hand, and try to work out the details of any argument that is unclear to you. Even if the argument is clear, writing it down again, similarly or differently, can be helpful to test and strengthen your understanding. Try to formulate questions. Take notes from your textbook within your class notes.
- Strive to understand the homework and practice problems inside and out.
- Work through the practice problem(s) mapped to each question on a problem set before attempting the question. Not all of the practice problems are closely related to your homework. Some of them are closer to your exam. **According to your peers, practice problems are especially useful for exam preparation.**
- Make a serious effort to complete each problem independently.
- Discuss concepts, seek feedback, and work problems with your classmates. Confer with others and compare your solutions, understand differences, and come to a consensus.
- Write out thorough and detailed solutions to the multiple-choice questions on problem sets, even though these solutions will not be collected or graded.
- Actively compare your solutions with the answer key, identify and understand any differences, and fill in any missing holes.
- Actively compare problem set and practice problem(s), seek to rectify any contradictions between problems and anticipate problem variations. Try to see the big picture!
- Don't just know what to do when solving a problem; understand why.
- Rework problems until you can teach them to someone else, and then do just that (even if "someone else" is a plant or invisible friend).
- Practice drawing graphs yourself until you can draw them without looking at your notes or book. Be able to explain what you are drawing.
- I promise you that the activities for this course were designed to meet the course's learning objectives. If you ever find that you are doing an activity in this class and you are not sure of its purpose, then please let me know.
- Learning happens gradually!
- Get adequate sleep. Your brain works best when well rested.

- Ask for help when you need it! I am passionate about helping you master the material in ECON410. Please visit my office hours or send me an e-mail. You can also seek help at the [Learning Center](#) or [EconAid Center](#) (free peer tutoring).

Table 1: Schedule

Date	Lecture	Assignment
06/26	FDOC and Math Review	PS 1 Assigned
06/27	Consumer Theory: Budget constraints (Chapter 4.1)	PS 2 Assigned
06/28	Consumer Theory: Preferences and Utility (Chapter 3.1–3.3)	PS 1 Due
06/29	Consumer Theory: Preferences and Utility (Chapter 3.1–3.3)	
06/30	Consumer Theory: Constrained Utility Maximization (Chapter 4.2)	PS 3 Assigned
07/03	Consumer Theory: Constrained Utility Maximization (Chapter 4.2)	
07/05	Consumer Theory: Demand (Chapter 5.1)	PS 2 Due
07/06	Consumer Theory: Elasticity (Chapter 2.2–2.3)	
07/07	Consumer Theory: Income and Substitution Effects (Chapter 5.2)	PS 3 Due
07/10	Midterm 1	
07/11	Firm Theory: Production (Chapter 6.1–6.3)	PS 4 Assigned
07/12	Firm Theory: Production (Chapter 6.5)	
07/13	Firm Theory: Cost Minimization (Chapter 7.2)	
07/14	Firm Theory: Labor Demand (Chapter 7.3)	PS 4 Due, PS 5 Assigned
07/17	Firm Theory: Long Run Cost (Chapter 7.3–7.4)	
07/18	Firm Theory: Long Run Cost (Chapter 8.1–8.2)	PS 5 Due
07/19	Midterm 2	
07/20	The Organization of Markets: Profit Maximization (Chapter 9.2)	PS 6 Assigned
07/21	The Organization of Markets: Perfect Competition (Chapter 9.1 and 9.3)	PS 7 Assigned
07/24	The Organization of Markets: Perfect Competition (Chapter 9.4)	
07/25	The Organization of Markets: Monopoly (Chapter 11.1–11.2 and 11.6)	PS 6 Due
07/26	The Organization of Markets: Monopoly (Chapter 11.5)	
07/27	The Organization of Markets: Game Theory (Chapter 14.1)	PS 7 Due
07/28	Reading Day	
07/31	Final Exam	

I reserve the right to make changes to the syllabus. These changes will be announced ASAP.