Course Syllabus
ECON 7310 - 8310 – Advanced Microeconomics I
Spring Semester, 2019
3.0 Credit Hours

Instructor: Carmen Astorne-Figari, PhD
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Office Hours: By Appointment
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Class: W 5:30 – 8:30 pm, at 265 FCB
Course URL: eCourseware (opens in new window)

Course Overview:
This class is the second in a three-course graduate Microeconomics sequence, covering models of consumer preferences and demand and theory of the firm in n-dimensions, welfare economics, general equilibrium, and cooperative game theory. We will approach these topics intuitively and mathematically, including proofs for some of the main results.

Pre-Requisites/Co-Requisites:
This course builds on the intuition developed in ECON 7300 (Economic Theory and Decisions). I will assume that everyone is comfortable with mathematical notation and argument. We will use calculus and basic matrix algebra. If you lack such skills, you must consult me as soon as possible. As this course is designed as part of the graduate microeconomics sequence, I strongly recommend taking ECON 6810 (Quantitative Economic Analysis) and ECON 7300 (Economic Theory and Decisions) before enrolling in this course. See college catalog or Ph.D. handbook (opens in new window) for more information.

Recommended Texts (and Related Materials):

- Microeconomic Analysis by Hal Varian, ISBN: 9780393957358
Location of Course Materials:

The primary source of material will be your class notes. Problem sets, their solutions, as well as the grade book are located on the eCourseware website (opens in new window).

Course Objectives:

By successfully completing this course, students will be able to:

- Understand the mathematical representation of consumer preferences (i.e. utility functions) and their meaning.
- Understand the n-dimensional consumer utility maximization problem and the derivation of ordinary demand, both numerically and graphically, and understand its properties and their proofs.
- Understand the n-dimensional consumer expenditure minimization problem and the derivation of compensated demand, both numerically and graphically, and understand its properties and their proofs.
- Understand the Slutsky decomposition.
- Comprehend the relationship between the Law of Demand and the Slutsky decomposition.
- Understand the relationship between Slutsky and integrability.
- Understand the conditions under which consumers can be modelled as one representative agent.
- Understand the properties of firm production, cost and profit maximization decisions.
- Understand the modelling and graphic representation of an exchange economy.
- Understand the modelling and graphic representation of a production economy and a Robinson Crusoe economy.
- Understand the concept of Pareto Optimality and the necessary conditions for one in the different types of economies.
- Understand the concept, types and derivation of Social Welfare Functions.
- Comprehend the Arrow Impossibility Theorem and its implication over Social Welfare functions.
- Understand and derive Competitive Equilibria for an exchange economy and its properties.
- Comprehend the concept of price support.
- Learn and understand the First Welfare Theorem and its proof.
- Understand the Second Welfare Theorem.
- Understand the basics of Cooperative Game Theory and its solution concept, the core, in the context of a market economy.
- Understand the basics of Cooperative Game Theory and its solution concept, the core, in the context of transferrable utility games.
Fogelman College: Learning Outcomes for Your Degree

This course is designed to help you to meet the overall learning objectives for the MA/PhD degree offered by the Fogelman College. You should take the time to become familiar with the overall learning objectives as a student your respective program.

MA in Economics

The Fogelman College has established the following learning goals for all students successfully completing the MA in Economics degree:

• Graduates will acquire a strong base in theoretical economic analysis.
• Graduates will acquire discipline specific knowledge.
• Graduates will acquire high-level empirical skills.
• Graduates will be able to communicate economic concepts effectively.

PhD in Economics

The Fogelman College has established the following learning goals for all students successfully completing the PhD degree:

• Graduates will demonstrate a detailed knowledge of their areas of specialization.
• Graduates will master the analytical/methodological skills needed to evaluate and conduct research in their areas of specialization.
• Graduates will demonstrate their ability to design and conduct original research in their chosen fields of specialization.
• Graduates will be able to teach college-level courses in their areas of specialization.
• Graduates will be able to communicate the results of their research in a clear and effective manner.
Grading and Evaluation Criteria

This section of the syllabus describes the assessed work you will be doing and how overall (final) letter grades will be computed.

Final Course Grades

Final course grades are earned according to the following table:

<table>
<thead>
<tr>
<th>Point Range</th>
<th>Assigned Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100 Points</td>
<td>A</td>
</tr>
<tr>
<td>80-90 Points</td>
<td>B</td>
</tr>
<tr>
<td>70-80 Points</td>
<td>C</td>
</tr>
<tr>
<td>60-70 Points</td>
<td>D</td>
</tr>
<tr>
<td>Under 60 Points</td>
<td>F</td>
</tr>
</tbody>
</table>

Summary of Graded Activities

Both the midterm and the final exams will be in class and closed book, meaning that you may not consult the text, your notes, or any other material, nor may you communicate with each other while taking them. These exams will be based primarily on homework and class notes.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Date</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam</td>
<td>February 27</td>
<td>1/3</td>
</tr>
<tr>
<td>Final</td>
<td>May 1</td>
<td>1/3</td>
</tr>
<tr>
<td>Problem Sets</td>
<td>See Below</td>
<td>1/3</td>
</tr>
</tbody>
</table>

I will not offer a makeup exam. Valid excuses for missing the exam include a verified illness or special family circumstances (e.g. death of a member of the immediate family). To be excused from the exam, you must notify me via university email before the exam begins. If you are excused, your course grade will then depend on your homework grade and on your performance on the other exam.

The homework will consist of 4 problem sets, which you are required to turn in at the beginning of class on the due date, and which will be graded. These must be typed. The preferred document preparation tool is LaTex, a typesetting code protocol that is considered the standard for academic papers. However, you are free to use any other software such as Lyx, Scientific Workplace, Scientific Word, etc. All problem sets (and solutions) will be posted on the class website. These are designed to challenge and may be time intensive, with the goal of providing you with some essential tools for graduate school.
Tentative due dates are the following:

<table>
<thead>
<tr>
<th>Problem Set</th>
<th>Tentative Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 30</td>
</tr>
<tr>
<td>2</td>
<td>Feb 20</td>
</tr>
<tr>
<td>3</td>
<td>Apr 3</td>
</tr>
<tr>
<td>4</td>
<td>Apr 24</td>
</tr>
</tbody>
</table>

On homework and exams, you must provide a written answer to each question in order to receive full credit. When writing your answers, be clear, explicit and organized. Numbers or calculations must be followed by an explanation. In other words, your answers should directly answer the question and provide an explanation of how you arrived at that answer. As is usually the case in graduate school, you are encouraged to work together. However, each student must turn in his or her own write-up of the solutions in a timely manner. Failure to do so will result in a loss of credit.

**Final Exam Schedule**

The final exam for this class will be scheduled according to the [Registrar’s academic calendar website (opens in new window)](http://example.com).

**Course Topics:**

1. Preferences
2. Competitive Demand
3. Competitive Equilibrium
4. Welfare Economics
5. Cooperative Game Theory

**Course Policies**

**E-MAIL:**

All students are required to maintain and access their University of Memphis (@memphis.edu) email account. You will receive all official course correspondence at this email account. Any inability to receive incoming mail in a timely fashion (e.g., not regularly checking your email, having a “full mailbox” condition, etc.) is the student’s responsibility.

**Attendance:**

As this is a graduate class, the assumption is that you all have the drive and intention to attend all class lectures. Thus, formal attendance will not be taken. Your full engagement in the class begins on the first day of the semester and should be maintained until the last assignment is
submitted. For students receiving funding, any lack of engagement in the course may potentially impact access to funding in the future. Students are responsible for all the material covered in class, even if they are unable to attend.

Adding / Dropping:

If you have questions about adding or dropping classes, please refer to this page on the Registrar’s website (opens in new window).

Academic Integrity:

The University of Memphis has clear codes regarding cheating and classroom misconduct. If interested, you may refer to the Student Handbook section on academic misconduct for a discussion of these codes. Note that using a “Solutions Manual” is considered cheating. Should your professor have evidence that using a “Solutions Manual” has occurred, he/she may take steps as described on the campus’ Office of Student Conduct website (opens in new window). If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the Fogelman College's Website on Academic Integrity (opens in new window).

Inclement Weather:

In the event that inclement weather requires the cancellation of classes at The University of Memphis, local radio and television media will be immediately notified. Additionally, The University of Memphis has established an Inclement Weather Hotline at 678-0888 as well as TigerText (opens in new window), an emergency alert text messaging service to students, faculty and staff. This optional service is used in the event of an on-campus emergency, an unscheduled university closing, or a delay or cancellation of classes due to, for instance, inclement weather. Additional information on TigerText (opens in new window).

Syllabus Changes:

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course bulletin board.

Student Services

Please access the FCBE Student Services (opens in new window) page for information about:

- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance