Instructor: Prof. Huseyin Yildirim, E-mail: hy12@duke.edu, Website: https://econ.duke.edu/people/huseyin-yildirim
TAs: Tulio Salvio Sousa, E-mail: tuliosalvio.sousa@duke.edu; Yongyi Lin, E-mail: yongyi.lin@duke.edu
Zoom Lectures: TTh 8:30 - 9:45 PM on ZOOM [Synchronous// recordings and notes to be available on Sakai]
Zoom Office Hours: M 8:00 - 9:00 PM (Sousa); TTh 9:45 -10:45 PM (Yildirim); W 2:00 - 3:00 PM (Lin) [No recordings for office hours]
Zoom TA Sessions: W 8:30 - 9:30 PM
Textbooks:
- (Required) Advanced Microeconomic Theory by G. Jehle and P. Reny, 3rd Ed.
- (Optional) Lecture Notes in Microeconomic Theory by Ariel Rubinstein, 2nd Ed.
- (Optional) Microeconomic Analysis by Hal Varian
- (Optional) Mathematics for Economists by Carl P. Simon, Lawrence E. Blume

Objective: This course reviews basic microeconomic topics, such as consumer and producer theories, partial and general equilibrium, and if time permits, more modern topics such as the principal-agent problem, and public good provision. During the review, formal arguments will be used, with an eye on applied aspects of the theories. Good knowledge of multivariate calculus is required (see the textbook’s appendix for a quick review).

Grading: There will be two exams and 5-7 problem sets, with the following weights.

<table>
<thead>
<tr>
<th>Problem Sets</th>
<th>10% (Drop two lowest)</th>
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<tr>
<td>Midterm</td>
<td>45%</td>
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<tr>
<td>Final</td>
<td>45%</td>
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You can discuss problem sets with classmates, but you must write your answers separately. No notes or books will be allowed in the exams.

Turning in assignments and exams: I will post the problem sets on Sakai, and expect you to submit a PDF version of your solutions on Sakai Dropbox by the due date. The exams will be administered through Zoom, with your cameras on, just like in class.

Re-grading Policy: Once midterm exams are returned, you have one day for a re-grade request. Please write down the question number and your rebuttal, and post it on your Sakai Dropbox. Note that since grading mistakes can happen in both directions, your entire exam, not just the specific questions, may be re-evaluated. Note also that a rebuttal for the final exam is possible only at the beginning of the following semester.

Special Exam Accommodations: Per the University rule, students with “approved accommodations” must inform the professor, preferably at the beginning of the semester.

Tentative Schedule:

- Consumer Theory
  Preferences and Utility: Preference Relation/Existence of Utility Function
  Choice: The Indirect Utility/Expenditure/Duality
  Demand: Slutsky Equation/Elasticity/Consumer’s Surplus
  Revealed Preference
  Uncertainty and Risk Aversion
  (MIDTERM EXAM: In Class, Tuesday, October 6, in class)
• **Producer Theory**
  Technology: Returns to Scale/Technical Rate of Substitution
  Cost Function and Its Properties
  The Competitive Firm: Profit Function/Supply

• **General Equilibrium**
  A Pure Exchange Economy: Core/Pareto Efficiency/Walrasian Equilibrium/Welfare Theorems

• **More Modern Topics (If time permits)**
  The Principal-Agent Problem
  Public Good Provision
  (FINAL EXAM: 8:00 - 11:00 PM, Monday, November 23)