UNITS: 4  Spring 2024

LOCATION / TIME:  Mon/Wed 10-11.20am at SSL 202  (Science & Engineering Library)

INSTRUCTOR: Yilmaz Kocer  kocer@usc.edu,  OFFICE: KAP 118,  office hour zoom meeting room:
https://usc.zoom.us/j/7319310670  I will respond to emails most probably within an hour (will not exceed 24 hours for sure) if sent during reasonable hours 9am-11pm, weekday or weekends. I will be more vigilant on being prompt with my replies closer to exams or assignment deadlines to be of immediate help.

OFFICE HOURS:  I will be available for all your questions over Zoom on Mondays 5.30-7pm. I will announce (on blackboard or via email) many extra office hours as demand arises throughout the semester. If you can’t make them or if you have a short question, email me to arrange another time to meet over zoom or in person.

TEACHING ASSISTANT: Your TA (to be decided) will hold regular office hours for content and grading related questions. Please email all your grading related questions directly to your TA, and I will only hear grading related questions from your TA first.

Course BLACKBOARD Website:  All course materials; instructions, announcements, discussion/feedback, exams, quizzes, sample/practice exams, their answer keys, your grades etc. will be posted on the course page on Blackboard. Familiarize yourself with the syllabus, announcements, contents and assignments tabs. I already put the PowerPoint slides for the textbook, all in a single pdf file under the contents tab. Please use “ECON 395 ” in the subject line in your emails for me to respond faster.

Required Textbook:


We will also cover (parts of) Chapters 17, 18, 20 from “Models in Microeconomic Theory” by Ariel Rubinstein, freely available here:  https://library.oapen.org/handle/20.500.12657/37216  
I will post lecture notes and practice problems to support the coverage throughout the semester.

Course Description:

This course is an eclectic course with multiple threads on economic issues, economic modelling and economic policies. The 5 main prongs of investigation will be:

1) Welfare Economics, Political Economy, Voting and Aggregation of Preferences.
2) Market Failures: Externalities; pollution and its remedies and regulation, common resources, public goods.
3) Market Failures: moral hazard and adverse selection, signaling and screening
4) Contemporary economic theory applications: mechanism design, matching
5) Behavioral Economics and Policy
We will devote about 2 weeks on each topic. Together with lecture notes, we will cover some chapters from Grant’s and Rubinstein’s textbooks (see tentative schedule at the end of the syllabus).

(1) Serves as an overview of political economy/welfare economics that guides us in judging different economic outcomes and policies. (2) Studies how externalities cause inefficiencies in allocation and how to overcome them in nonstrategic and strategic (game theoretical) settings, (3) Helps us understand where free market models fail (the other major way where they fail is market power; which is omitted since it is covered in detail in most intermediate microeconomics courses; and I don’t want you to have overlap in content with other classes you may have taken, for maximum “marginal” benefit from this course.) (4) Gives a glimpse of the new field of mechanism design, where policy makers -lacking knowledge about individual preferences and/or information- design institutions/policies for the purpose of attaining socially preferred outcomes, while taking into account people’s strategic incentives. The classical examples here would be public projects and matching markets (i.e. building a bridge with public funds, or optimally assigning students to public schools or doctors to hospitals). In (5), we will be introduced to the world of behavioral economics, where we will critique core assumptions of rationality, selfishness and others that are at the center of most microeconomic models. We will give examples of how there assumptions are routinely violated, what they imply for economic and social behavior and ultimately for public policy.

**Prerequisites:** Econ 203 and Econ 205 and pre-calculus algebra and some very basic calculus like taking derivatives of polynomials (I will review those materials as we need it).

**Learning Objectives:** At the successful completion of this course, students will be able to:

-- Construct different approaches/evaluation methods when analyzing welfare for a given economic outcome.
-- Describe how different methods of aggregation of individual preferences result in a social choice.
-- Assess the possibility of a meaningful aggregation of individual preferences as a function of the range of preferences.
-- Describe how externalities result in inefficient market outcomes, in the case of pollution, tragedy of the commons, public goods provision and evaluate possible remedies and government regulations to mitigate them.
-- Assess and quantify how asymmetric information distorts market outcomes.
-- Describe how externalities might result in inefficient social outcomes and how the society can improve upon them.
-- Describe how one-sided housing markets and two-sided matching markets work and calculate for a given profile of preferences how Top Trading Cycles algorithm and Gale Shapley Deferred Acceptance Algorithm work.
-- Evaluate how market outcomes might depend on the crucial assumption of perfect rationality on part of the economic agents; and describe how the economic predictions under a particular behavioral assumption might differ from the predictions under a fully-rational-agents assumption.

**Class Participation**

Even though it is not directly part of your grade, your attendance and active presence in class is essential. Stay engaged, ask questions if anything is unclear, suggest answers to questions I pose, read the textbook and any
additional reading I assign. The course material is dense, loaded with many ideas, concepts, problems so a casual interest and less-than-full commitment will not suffice to be successful in this course and many hints about exam preparation will be given during the lectures.

**GRADING CRITERIA**

<table>
<thead>
<tr>
<th>Grading component</th>
<th>%weight</th>
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<tbody>
<tr>
<td>Midterm Exam February 28th</td>
<td>25%</td>
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<tr>
<td>8-9 Problem Sets (homework) -worst 2 will be omitted-</td>
<td>38%</td>
</tr>
<tr>
<td>FINAL EXAM May 6th Monday 8-10am</td>
<td>37%</td>
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</tbody>
</table>

**GRADING**

Midterm and the Final Exam might both include technical problems, similar in structure to the in-class exercises or problem sets and multiple-choice questions. Some problem sets are (around 5 of them) will directly be on Flatworld Online Homework Portal (that comes with the e-textbook purchase) and will mostly be multiple choice/true-false or fill in the blanks type questions.

*The Midterm Exam and the Final Exam*

The dates are already set as above and they will be in delivered in person in class. No books/notes/cell phones are allowed but calculators are okay, even though I don’t think you’ll need it. The final exam is cumulative; it covers all material studied throughout the semester; however it will predominantly (around %80) test the second half of the course (material after the midterm exam), to give equal grading coverage to all topics. The final exam is around 40-50% longer than the midterm exam both in size and in time duration.

*Problem SETS* 8-9 problem sets will be assigned throughout the semester, roughly one for every 1-2 weeks and your worst 2 will be dropped! I will announce the due dates for the problem sets both in class and on Blackboard and you will at least have 3-4 days to complete it. A problem set can either be 1) a set of 3-5 technical problems about the content similar to in-class exercises that are relatively hard and challenging; or 2) an online homework with 50-100 multiple choice questions on the Flatworld homework platform that comes with the Grant’s e-textbook. This second kind of problem set must be completed individually, but on the first type of homework you may work together and form study groups; however, you must each write down your own answers and submit them individually; and be prepared to present them during class if called upon. They will be posted on bb under assignments tab, and you are required to submit your work back on bb as a single legible pdf file; no hand delivery of problem sets to me or to your TA in person.
**Final Letter-grade calculation:**

Your **letter grade** depends on your **cumulative weighted average grade x** according to the following table:

<table>
<thead>
<tr>
<th>x</th>
<th>≥ 90</th>
<th>≥ 85</th>
<th>≥ 80</th>
<th>≥ 75</th>
<th>≥ 70</th>
<th>≥ 65</th>
<th>≥ 60</th>
<th>≥ 55</th>
<th>≥ 50</th>
<th>≥ 45</th>
<th>≥ 40</th>
<th>&lt; 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>grade</td>
<td>A</td>
<td>A−</td>
<td>B+</td>
<td>B</td>
<td>B−</td>
<td>C+</td>
<td>C</td>
<td>C−</td>
<td>D+</td>
<td>D</td>
<td>D−</td>
<td>F</td>
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</tbody>
</table>

For example, if your \( x = 73.45 \) you end up with (at least) a **B- grade**. I will also consider your weighted average’s relative ranking within the class, only to improve your grades beyond the **minimum guarantees** described in the table.

**IMPORTANT REMINDERS**

1) Your cumulative weighted average **will not** be rounded up.

2) All exams will be delivered in class, **no exam taking over zoom under any condition**.

3) Students with OSAS accommodations should reach out to me as soon as they get the paperwork, as I cannot accommodate them without the paperwork or retroactively. They should also arrange, in advance, to take the exams in the OSAS office.

4) There will be **no opportunities for extra credit** in this course.

5) Please ask all grading related questions, emails directly to your **TA** first. You have **two weeks** after the announcement of grades for an exam or problem set to voice your concerns about any incorrect grading or missing grades; after that time, the grades for that exam/problem set are fixed and cannot be modified.

After meeting with your TA, if you still feel your work was graded incorrectly, please submit your work and a brief written explanation of your argument. I will regrade the entire answer, which means that your score may go down.

6) I will assume you have a commitment to academic integrity as per the **student handbook** or the **Office of Academic Integrity’s website**.

7) Please refrain from cell phone or laptop use during class, unless you are using your tablet/laptop **solely** for note taking purposes, which you should let me know at the **beginning** of the course.

8) As this course is highly technical/quantitative yet does not have dedicated discussion sessions to practice with problems; it is imperative for you to practice with as many problems as possible yourself.

**MISSING an EXAM or a PROBLEM SET:**

You will get a **0 score** for a problem set, midterm exam or the final exam if you miss it, **except** in the case of USC registrar’s definition of an emergency (See **USC Grading and Correction of Grades Handbook**) which includes documented medical and family emergencies characterized by severe and unforeseen hardship. According to USC guidelines, “no student is permitted to omit the [final examination].” Per the guidelines, in case of “a documented illness or other [event that meets the registrar’s definition of emergency] occurring after the withdrawal deadline for the course,” an incomplete grade (IN) will be assigned. Thus, if you **miss the final exam** for a reason that meets the USC registrar’s definition of emergency, you will be assigned an incomplete grade IN for the course.
If you miss a midterm exam for a valid reason as described above, its weight will be pushed towards the next midterm (if there is one) and the final exam. In this case, you should provide me with the proofs of the medical or family emergencies.

Having another midterm or final exam on the same day is not an excuse for not taking it. If you ever have a conflict with an exam date, see me as soon as you are aware of it (it must be at least two weeks in advance). There is no makeup exam for the midterm, the final exam, or the problem sets!

Missing a problem set is less problematic, for both you are having many days to complete it and **dropping your worst 2 problem sets** from your grade is expressly designed to buffer against unforeseen hardships and illnesses and family emergencies. Please do not email me to be excused for a problem set unless you miss 3 or more problem sets, in which case I will ask you to document your excuse for all missed problem sets to show they meet the registrar’s emergency criterion (in which case I excuse you from ); otherwise, you will get 0 credits for all missed problem sets.

Still, I urge you to complete and submit each one of them, to start working on them as early as they are posted on bb. Late PS submissions will receive NO credit as I will post the answers on blackboard right at the deadline, so please submit whatever you have by the deadline to get any credit and please do not email me for an extension.

**How to do well in this course:** Listen to the lectures carefully and read the relevant sections from your textbook(s) beforehand. Study the in-class exercises, problem sets and textbook end of chapter problems very carefully. Make sure to understand the mechanism behind each model we study in class, and the reason behind every equation in the problems we solve in class, in the textbook and in the problem sets and exams. Work with your friends on the difficult problems. Learn from each other. Seek help from your TA and myself; we are here to help you.
### Topics and Tentative Outline

The following is a tentative outline of the topics to be covered during each class meeting, as the pace of the course may vary. *The midterm exam and the final exam dates are already set. PS (problem sets) will be evenly spread over the weeks.*

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Readings</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 8, 10</td>
<td><em>Introduction</em>, Economics and markets, exogenous/endogenous variables</td>
<td>L, G1, G2, G3</td>
</tr>
<tr>
<td>2</td>
<td>Jan 17</td>
<td><em>Political Economy, Social Choice, Welfare economics; basic tools</em></td>
<td>L, G21, R20</td>
</tr>
<tr>
<td>3</td>
<td>Jan 22, 24</td>
<td>Voting and Social Choice: Aggregation of Preferences</td>
<td>L, G13, R20</td>
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<tr>
<td>4</td>
<td>Jan 29, 31</td>
<td>Games: equilibrium, coordination</td>
<td>L, G4, G6</td>
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<tr>
<td>5</td>
<td>Feb 5, 7</td>
<td><em>Market Failures: Externalities</em></td>
<td>L, G7, G8</td>
</tr>
<tr>
<td>6</td>
<td>Feb 12, 14</td>
<td>Pollution and its regulation.</td>
<td>L, G7, G8</td>
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<tr>
<td>7</td>
<td>Feb 21</td>
<td>Tragedy of the commons; common resources</td>
<td>G9</td>
</tr>
<tr>
<td>8</td>
<td>Feb 26, 28</td>
<td>Public good provision <em>Midterm Exam</em></td>
<td>G10, G11</td>
</tr>
<tr>
<td>9</td>
<td>March 4, 6</td>
<td>Contemporary Economic Theory &amp; Policy: Mechanism Design</td>
<td>R17</td>
</tr>
<tr>
<td>10</td>
<td>March 18, 20</td>
<td>Mixed strategies- Volunteer’s dilemma. Coordination and strategic</td>
<td>L, G12</td>
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<td></td>
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<td>externalities</td>
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<tr>
<td>11</td>
<td>March 25, 27</td>
<td>Market Failures: asymmetric information</td>
<td>L</td>
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<tr>
<td>12</td>
<td>April 1, 3</td>
<td>Adverse Selection, Moral Hazard, Screening and Signaling</td>
<td>L</td>
</tr>
<tr>
<td>13</td>
<td>April 8, 10</td>
<td>Contemporary Economic Theory &amp; Policy: Matching Theory: One-Sided and</td>
<td>L, R18</td>
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<td></td>
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<td>Two-sided Matching</td>
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<tr>
<td>14</td>
<td>April 15, 17</td>
<td>Behavioral economics and policy: 1) Rational Decision Making</td>
<td>L</td>
</tr>
<tr>
<td>15</td>
<td>April 22, 24</td>
<td>2) Biases in Decision Making</td>
<td>L</td>
</tr>
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</table>

**FINAL EXAM May 6th Monday 8-10am**
Support Systems:

Counseling and Mental Health — (213) 740-9355 — 24/7 on call Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

988 Suicide and Crisis Lifeline — 988 for both calls and text messages — 24/7 on call the 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. You can also call (800) 273-8255

Relationship and Sexual Violence Prevention Services (RSVP) — (213) 740-9355(WELL) — 24/7 on call Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) — (213) 740-5086 Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment — (213) 740-5086 or (213) 821-8298
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

The Office of Student Accessibility Services (OSAS) — (213) 740-0776 OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention — (213) 740-0411
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion — (213) 740-2101
Information on events, programs and training, the Provost’s Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency — UPC: (213) 740-4321, HSC: (323) 442-1000 — 24/7 on call
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety — UPC: (213) 740-6000, HSC: (323) 442-1200 — 24/7 on call
Non-emergency assistance or information.

Office of the Ombuds — (213) 821-9556 (UPC) / (323) 442-0382 (HSC) A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice — (323) 442-2850 or otfp@med.usc.edu
Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.