

Economics 171: Decisions Under Uncertainty

Spring 2016, Professor Itai Sher

This course examines how economic agents make decisions in the presence of uncertainty. It examines how economists represent uncertainty, fundamental principles of choice under uncertainty, the concepts and measurement of “risk” and “risk aversion,” and how risk and uncertainty influence economic behavior. We will also discuss approaches based on psychological evidence that challenge the standard economic approach, and current research in light of this evidence.

Prerequisites

Econ100A or 170A; and Econ 120A or Ece 109 or Math 180A or Math 183 or Math 186

Lecture and Discussion Section Schedule

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|-------------------|-----|------|-------------|-----------|
| Lecture | A00 | TuTh | 3:30p-4:50p | CENTR 101 |
| 865334 Discussion | A01 | M | 7:00p-7:50p | SOLIS 104 |
| 865335 Discussion | A02 | M | 8:00p-8:50p | SOLIS 104 |

Please go to the discussion section you are enrolled in. There will be no class meetings on university holidays.

Examinations

There will be two midterm examinations and a final examination. The midterm exams will take place during the normal class time on Thursday April 21 and Tuesday May 17. The final exam will take place on Monday June 6, 3:00pm-5:59pm. The final is scheduled for three hours but we will not use the full three hours.

Class Website (TritonEd)

Materials will be posted at <https://triton.ed.ucsd.edu> on the page for Economics 171.

Course Materials (Links to all material other than the textbook are posted on Ted)

- Textbook: *Making Better Decisions* by Izhak Gilboa.
- Optional Textbook: *An Introduction to Decision Theory* by Martin Peterson.
- Class Notes. Class Notes corresponding to class lectures will be posted **after** each lecture.

Piazza

We will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates, the TAs, and myself. Rather than emailing questions to me or the TAs, please post your questions on Piazza. Piazza offers students the opportunity to answer questions posed by classmates. If you are one of the students in the top 25% of number of “good” answers (marked by me or TAs), you will earn a bonus equivalent to 1% of the class grade, and if you are in the top 10%, you will earn a bonus equivalent to 2% of the class grade. There is a link to Piazza on Ted.

Problem Sets

Problem sets will be assigned on Mondays, and answers will be posted the following Monday. Problem sets will not be graded and students do not need to submit them. However, students should think of the problem sets as if they are due in the discussion section the following week. In discussion section, the TA will go over some of the problems. You will be much better prepared for the exams if you attempt the problem sets before seeing the answers. Working on the mathematical exercises is a critical part of the learning process, so students are strongly urged to take problem sets seriously.

Grading Weights

Midterm 1 is worth 30% of your grade, Midterm 2 is worth 30% of your grade. The final exam is worth 40% of your grade. In addition, you can earn extra credit on Piazza (see above). The class will be graded on a curve.

Teaching Assistant and Contact Information and Office Hours

The TAs for this class is:

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|---------------|--|-------------------|
| Paul Feldman | Office Hours: Friday 9-10 am in Econ 119 | pfeldman@ucsd.edu |
| Kaitlyn Lewis | Office Hours: Monday 4-5 pm in Econ 117 | kelewis@ucsd.edu |

Sher's Office Hours and Location

Thursdays: 11:00-12:00 and 1:30-3:15 pm in Econ 113.

How to Succeed in the Course

Doing well in this course requires regular attendance at lectures and discussion sections and solving practice problems. Working through the mathematical exercises is a particularly important part of the learning process. It is not enough to glance at the solutions to the exercises. Students should work on as many exercises as they can before the discussion sections and before looking at solution keys. In general, you should take an *active* approach to the material. This involves testing yourself to make sure that you understand the material, translating what you read and learn in lectures into your own words, identifying what you don't understand and working on it until you do, and working on exercises.

Preliminary Course Outline

1. Introduction to Decision-Making Under Uncertainty
2. Basic Concepts from Probability Theory
3. Expected Utility Theory
4. Risk Aversion
5. Subjective Uncertainty
6. Judgment and Choice Biases

Administrative Notes

1. If you have a documented disability, please bring your documentation to the professor or lead TA so that suitable accommodations can be made. If you believe that you have a disability and desire accommodation, please register with the Office for Students with Disabilities as soon as possible. For information on the steps for academic accommodation, please see <http://www-senate.ucsd.edu/manual/appendices/app3.htm>.

2. Any student found guilty of academic dishonesty in this course will earn a failing grade for the course. In addition to this academic sanction, the Council of Deans of Student Affairs will also impose a disciplinary penalty. For UCSD policy, please see <http://www-senate.ucsd.edu/manual/appendices/app2.htm>.

3. You will only need a writing instrument (pen or pencil) for examinations. No books, notes, or electronic devices (including calculators, headphones, cell phones) are allowed, and students may not consult with each other during the examinations.

4. If you arrive late to an exam, you will be allowed to take the exam in the time that remains as long as no one has submitted his/her exam and left the room. If you arrive after someone has submitted an exam, you will earn zero points on the test.

5. If you believe that an exam has not been properly graded, you must give a **written note** clearly explaining why your score is in error to your discussion section or TA's office hours **within seven days** from when exams were returned to the class. The professor and TAs will then discuss the question, review your entire exam, and increase or decrease your score as is necessary. You may not ask for another regrade or reinstate your original grade. Hence, by submitting a re-grade request you risk having your score decrease, so consider this decision carefully.

6. UCSD has automated wait-lists. If you have any questions regarding adding the class, please contact the undergraduate advisors in Sequoyah Hall 245. The economics department does not allow late additions (additions after the second week) to any class.