

Economics 171: Decisions Under Uncertainty

Syllabus and Reading List

This course is concerned with decision making under uncertainty. It will cover a number of topics including decision trees, payoff tables, alternative decision criteria, expected utility theory, and risk aversion. A variety of applications will also be discussed including insurance, optimal search, competitive bidding, and signalling.

The course web site is at: <http://econ.ucsd.edu/classes>. All homework assignments, answers to homework, supplementary reading, announcements, old exams, and the like will be posted there. Please acquaint yourself with the site and visit it regularly.



Text:

- D. V. Lindley, *Making Decisions*, 2nd Edition, John Wiley & Sons, 1985

Note: This text is out-of-print but has been reprinted by the copyright holder and is for sale at the UCSD Bookstore. However, under the terms of the copyright, only Chapters 1 - 9 were reprinted. A scanned copy of Chapter 10 will be made available shortly on the class web site.



Prerequisites:

The prerequisites for this course are: Economics 1 A-B or 2 A-B, Economics 120 A and Math 20F. If you have not completed these courses, please see me.



Midterm, Final Exam, and Grades:

A midterm will be given on Wednesday EVENING, April 28, 2004 from 6:00 - 7:50 in York Hall 2722.

IMPORTANT Anyone with a conflict at this time **MUST** see me (Professor Groves) during Week 1 of the course. Failure to see me at this time will obligate you to take the midterm exam at the above announced time.

The midterm will contribute about 35% of your grade. The final will be given on Wednesday, June 9, 2004, from 3:00 - 6:00 p.m. The final will contribute about 65% of your grade. In addition, homework problems will be assigned but ungraded. Answers will be provided, however. Doing the problems will be excellent practice for the midterm and final. Not doing the problems will be risky and will increase significantly your chances of doing poorly in the course.



Co-Instructor and Office Hours:

My office hours for this course will be on Wednesday, from 9:30 - 10:30 a.m. and also by appointment. My office is room 317 of the Economics building. I can also be reached by electronic mail at my UCSD e-mail address, tgroves@ucsd.edu, to ask questions, set up an appointment, and the like. I strongly encourage you to make use of this way of communicating with me.

Because I will be out of town on a number of the scheduled lecture dates, the Economics Department has arranged for the course to have a co-instructor, Mr. James Brennan, who will give lectures on the days I am gone. Mr. Brennan will also hold office hours at times to be announced and you should contact him regarding any aspect of the course. Mr. Brennan will also share the responsibility with me for constructing the exams and assigning course grades. Mr. Brennan's e-mail address is, jbrennan@econ.ucsd.edu.



Teaching Assistants:

We will also have 3 Teaching Assistants, Ms. Deniz Kebabci, Mr. Robert Lieli, and Mr. Jun Ye. They will hold Sections and Office Hours at times and places to be announced. Section meetings will be used to discuss the homework problems and answer questions about the lectures and readings.



Calendar

Lecture Dates, Topics, and Reading Assignments:

- **March 30 & April 1 : Representation of Risky Choice Problems**

- D. V. Lindley, Chapters 1 - 2, pgs. 1 - 30

- **April 6 & 8: Decision Criteria**

- D. V. Lindley, Chapter 3, pgs. 31 - 52

- **April 13, 15, & 20: Expected Utility Theorem**

- D. V. Lindley, Chapter 4, pgs. 53 - 70

- **April 22 & 27: Risk Aversion**

- D. V. Lindley, Chapter 5, pgs. 71 - 96

- **April 28: MIDTERM York Hall 2722, 6:00 - 7:50 pm**

- **April 29, May 4, & 6: Bayes' Theorem**

- D. V. Lindley, Chapter 6, pgs. 97 - 116

- **May 11 & 13 : Value of Information**

- D. V. Lindley, Chapter 7, pgs. 117 - 138

- **May 18 & 20: Decision Trees**

- D. V. Lindley, Chapter 8, pgs. 139 - 159

- **May 25 & 27: Assessment of Probabilities and Utilities**

- D. V. Lindley, Chapter 9, pgs. 160 - 178

- **June 1 & 3: Applications**

- D. V. Lindley, Chapter 10, pgs. 179 - 194

- **June 9: WEDNESDAY, Final Exam 3:00 - 6:00 p.m.**

