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 Tuesday, October 28, 2003. It will contribute about 35% of your grade. The final will be given on Tuesday, December 9, 2003, from 11:30 a.m. - 2:30 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.

Office Hours:

My office hours for this course will be on Wednesday, from 11:00 a.m. - 12:00 p.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.

Teaching Assistant:

This course will have a Teaching Assistant, Mr. Francisco Pascual. He will hold a section every Thursday morning at 8:00 a.m. in Center Hall 214 and office hours at times to be announced. He will use the section meeting to discuss the homework problems and answer questions about the

Lecture Dates, Topics, and Reading Assignments:

- **September 25, 30, & October 2: Representation of Risky Choice Problems**

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

- **October 7, & 9: Decision Criteria**

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

- **October 14, & 16: Expected Utility Theorem**

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

- **October 21, & 23: Risk Aversion**

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

- **October 28: MIDTERM**

- **October 30, November 4, & 6: Bayes' Theorem**

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

- **November 11: Veteran's Day Holiday: NO CLASS TODAY**

- **November 13 : Value of Information**

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

- **November 18, & 20: Decision Trees**

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

- **November 25, & December 2: Assessment of Probabilities and Utilities**

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

- **November 27: Thanksgiving Holiday: NO CLASS TODAY**

- **December 4: Applications**

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

- **December 9: TUESDAY, Final Exam 11:30 a.m. - 2:30 p.m.**