

Introduction to Operations Research  
Economics 172A  
Winter 2007  
**Revised**

**Calendar:**

Lectures: Monday, Wednesday, Friday: 8:00 - 8:50 AM, Center Hall 105

Midterm Examination: Wednesday, January 31, 2007, 8:00 - 8:50 AM, Center Hall 105

Midterm Examination: Wednesday, February 28, 2007, 8:00 - 8:50 AM, Center Hall 105

Final Examination: Monday, March 19, 8:00 - 10:59 AM, place to be announced.

**Office hours:**

Marshall, Economics 109, office hours Monday 1:00-2:00, Tuesday 1:00-2:00 or by appointment (call 858 534 8904 (no voice mail)), or drop in. E-mail: [marshall@econ.ucsb.edu](mailto:marshall@econ.ucsb.edu) (Note the E-mail is ucsB, not ucsD).

Benjamin Kay, Economics 121, Tuesday 9:00 - 11:00

**Home works:** due at the start of class on Wednesdays.

**Grading:** Midterms, each 15%, Homework 20%, Cumulative Final 50%.

**Text:** Various texts including Hillier and Lieberman, *Introduction to Operations Research*, McGraw-Hill, New York, recent editions. Chapter citations are to the eighth edition, which is the latest available to me. Professor Joel Sobel has made available his lecture notes, to which a link will appear on the index page. Some of you might enjoy David Gale's *The Theory of Linear Economic Models*, McGraw-Hill, New York, 1960. Gale gives a gorgeous exposition of this beautiful topic and he supplies numerous examples of the key points. By comparison, Hillier and Lieberman is laborious and cook-book. Gale's notations are daunting at first.

Taking Hillier and Lieberman as a guide to the course, I intend to cover chapters 1 through 3, 6, and 14. Chapter 14, game theory, was Chapter 11 in earlier editions. There is also important material in chapters 4, 5, 8.1, and 8.3. Your goals for the course are to write problems as linear programs, write the duals, solve the programs numerically using solver in excel (or similar), and interpret the solutions and the dual solutions.