**OUTLINE AND REFERENCES:**

Below is a schedule of topics to be covered and associated readings in (HL). (The page references are from the most recent editions - earlier editions do not differ greatly. The book "Introduction to Operations Research" by Hillier and Liebermann contains "Introduction to Mathematical Programming." If you have access to an earlier edition, you should have little trouble finding the relevant reading.) In the column labeled "problems" the first line gives page and problem numbers in Hillier and Liebermann's book.

The class web page has links to old problem sets and the last final examination of the course (and answers to these questions). These also contain relevant problems (especially to the last topics).

| Week | Topic | Notes | Reading | Problems | Answers |
|---|---|---|---|---|---|
| 0 | Introduction | I, 1-6 | | | |
| 1 | Geometry and Problem Transforms | II<br>V | 28-31 | 68:3.1-1,2,8-10<br>02WExam I:1,2ab,5<br>02FExaml:1,2ab | Exam I, W02<br>Exam I, F02 |
| 2 | Simplex | III | 81-122 | 139:4-3-4,5,6<br>02WExam I: 3,4<br>02FExam I:3 | Exam I, W02<br>Exam I, F02 |
| 3 | Duality | VI: 1-6, 17-19 | 196-204 | 240: 6.1-5,6,7,8<br>02WExam I: 2c,6<br>02FExam I: 2c,4<br>02FExam II: 2a | Exam I, W02<br>Exam I, F02<br>Exam II, F02 |
| 4 | Complementary Slackness | VI: 7-12 | 206-214 | 244:6.4-2<br>02WExam II: 3<br>02FExam II: 2c | Exam II, W02<br>Exam II, F02 |
| 5 | Formulation<br>Interpret Dual | I, 6-11<br>VI, 12-17 | 32-68<br>204-6 | Supplementary<br>02WExam II: 2<br>02FExam II: 1,2b | Supplementary<br>Exam II, W02<br>Exam II, F02 |
| 6-7 | Sensitivity | VII<br>Examples | 122-9<br>215-239 | 246: 6.6-1,2<br>02WExam II: 1<br>Data | Exam II, W02 |
| 8 | Transportation | VIII<br>Examples | 304-329 | | |
| 9-10 | Games | IX | 514-530 | 532:11.1-3;.2-2-6 | |

way to prepare for the examinations. The exam will mimic old programs and homework assignments. Concepts and methods are important features of the class. On examinations I usually want you to demonstrate that you understand how to solve problems and what the answers mean. Getting correct numerical answers alone is not sufficient.

I will also assign homework problems that must be turned in. Most of these will involve using the computer. Standard spreadsheet programs now have the ability to solve linear programming problems. You will need Microsoft Excel ("solver" option must be installed) to do these assignments. The program is available on computers in the computation lab in Econ 100. There is no need to use the computation lab if you have access to the software. The notes contain some information about using Excel to solve linear programming problems. I will spend next to no time in lecture talking about the computer program.

**ADMINISTRATIVE MATTERS:**
Homework is due at the announced time. I will accept no late papers.

I will give no late examinations without compelling (and fully documented) **medical** excuses.

You may use calculators (but not other electronic devices) during examinations. You may not consult notes, books, or your classmates' exam papers during the final or the midterms. You may discuss your homework assignment with your classmates. You must write answers independently.

I take violations of academic honesty seriously. Any act of academic dishonesty will be reported to your academic dean and be grounds for failure in the course.

**COMPUTER ACCOUNTS:**
If you do not have access to Excel, you will need a computer account to do some homework. I will distribute account information in class.

**SECTIONS:**
There are two sections for the class. They meet in Center 216 on Mondays at 7:00-7:50 pm and 8:00-8:50 pm. A TA will organize and run sections. Sections will review class material, discuss homework, answer questions, and distribute graded papers.

**OFFICE HOURS:**
My office hours are after class: Tuesdays and Thursdays, 2:15-3:30 in 311 Economics. My phone number is (858) 534-4367, my e-mail address is jsobel@ucsd.edu. I will announce the names and office hours of the teaching assistants in class.

Warnings: I will not answer my office phone during office hours if a student is in the office. A TA will be responsible for answering email questions.