

Outline and References

Below is a schedule of topics to be covered and associated readings in (HL). (The page references are from the edition that I ordered - 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 table matches relevant examination problems to the topics in the class. When you see something like "II.1" in the column for Fall 01, it means that the first problem of the second midterm from Fall 2001 is a relevant problem. In this part of the table, F.3 stands for the third question on the final.

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).

| Date | Topic | Notes | Reading | Text | Winter 02 | Fall 02 | Fall 03 |
|-----------------|-------------------------|----------------|----------------------|----------------------|----------------|--------------|-------------------|
| 9-23 | Introduction | I, 1-6 | | | | | |
| 9-28 | Graphing | II | 28-31 | 68:3.1-1,2, 8-10 | I.1, 5, F.6(a) | I.1 | I.1 |
| 9-30, 10-5 | Simplex Algorithm | III | 81-122 | 139:4.3-4,5,6 | I.3,4 F.6(b,d) | I.3, F.4 | I.3, F.4 |
| 10-7, 10-12 | Duality | VI: 1-6, 17-19 | 196-204 | 240:6.1-5,6,7,8 | I.6 | I.4, F.3 | I.3, F.4, 6 (a,f) |
| 10-14 | Midterm Examination | | | | | | |
| 10-19 | Complementary Slackness | VI:7-12 | 206-214 244:6.4-2 | | II.3, F.6(c) | I.3 | II.1, F.5 |
| 10-21 | Problem Formulation | I: 6-11 | 32-68 | | II.2, F.5 | II.1 | II.1 |
| 10-26, 28 | Interpretation of Dual | VI: 12-17 | 204-6 | | | | II.2, F.2 |
| 11-2, 4 | Sensitivity Analysis | VII | 122-129 215-239 | 246:6.6-1,2 | II.1, F.1, 4 | I.3, F.1, 5 | I.3, F.1 |
| 11-9 | Midterm Examination | | | | | | |
| 11-11 | Holiday - No class | | | | | | |
| 11-16, 18 | Transportation Problem | VIII | 304-329 | | F.2 | | |
| 11-23, 30; 12-2 | Zero-Sum Games | IX | 514-530 | 532:11.1-3;11.2 -2:6 | F.3 | F.2, 6 (g-j) | F.2,3,6 (g-j) |
| 12-8 | Final 8-11 AM | | | | | | |