

MA/STA 515 — LINEAR AND COMBINATORIAL OPTIMIZATION
MWF 3:00–3:50 — CB347

COURSE WEBPAGE: www.ms.uky.edu/~lee/ma515fa07/ma515fa07.html

INSTRUCTOR: Carl Lee, 967 POT, 257-1405, lee@ms.uky.edu, www.ms.uky.edu/~lee

OFFICE HOURS: MWF 2:00–2:50 and by appointment, since I realize that some of you will be unable to come at these times. Also, I may need to schedule some additional formal times for the class to meet, since there are some class days when I will be out of town.

TEXT: Jon Lee, *A First Course in Combinatorial Optimization*, Cambridge, 2004. I will also prepare some course notes.

TOPICS:

1. Chapter 0: Polytopes and Linear Programming
2. Chapter 1: Matroids and the Greedy Algorithm
3. Chapter 2: Minimum-Weight Dipaths
4. Chapter 3: Matroid Intersection
5. Chapter 4: Matching
6. Chapter 5: Flows and Cuts
7. Various miscellaneous topics as time permits

GRADING:

Homework: 50%
Exams: 30%
Final: 20%

HOMEWORK: Usually collected weekly, but some problems may be collected more frequently. From time to time I will give additional homework assignments for the graduate students enrolled in the course that will not be required of the undergraduate students. Problems are assigned to be solved. Searching the textbooks or the library for solutions is not permitted. On regular assignments you may discuss the problems with other current

class members and with me. However, when it comes time for you to write up the solutions, I expect you to do this on your own. If you receive assistance from someone else, include a written acknowledgment. Such an acknowledgment is a professional courtesy and will not affect your grade.

EXAMS: There will be two or three exams (tentative dates: September 24, October 15, and November 14) and a final exam (December 10, 1 pm). One or more of these may be take-home exams.

IMPORTANT DATES:

August 21 — Tuesday — Last day a student may officially drop a course or cancel registration with the University Registrar for a full refund of fees.

August 28 — Tuesday — Last day to add a class for the 2007 Fall Semester.

August 28 — Tuesday — Last day to officially withdraw from the University or reduce course load and receive an 80 percent refund.

September 3 — Monday — Labor Day - Academic Holiday.

September 12 — Wednesday — Last day to drop a course without it appearing on the student's transcript.

September 19 — Wednesday — Last day to officially withdraw from the University or reduce course load and receive a 50 percent refund.

October 15 — Monday — Midterm of 2007 Fall Semester.

October 19 — Friday — Last day to withdraw from the University or reduce course load. Students can withdraw or reduce course load after this date only for "urgent non-academic reasons."

November 21 — Wednesday — Fall Break - Academic Holiday.

November 22–24 — Thursday through Saturday — Thanksgiving — Academic Holidays.

December 10 — Monday — Final Exam, 1 pm.

CHEATING AND PLAGIARISM: Cheating and plagiarism are not worth it, and they are damaging to your self-integrity, so don't do it. Here is the website with information on University policies: <http://www.chem.uky.edu/research/grossman/acadoffenses/index.htm>.