MATH 340 Introduction to Linear Programming 2015 spring

Linear programming problems, dual problems, the simplex algorithm, solution of primal and dual problems, sensitivity analysis.

Additional topics chosen from: Karmarkar's algorithm, non-linear programming, game theory, applications.
Prerequisite: One of MATH 152, MATH 221, MATH 223.

Course book:

We follow the textbook, "Linear Programming" by Vanderbei, 4th edition; it is available to anyone with a CWL account.

Grading

- There will be one midterm accounting for about 30% of the final mark.
- There will be weekly problem sets accounting for about 20% of the final mark.
- The final exam will account for about 50% of the final mark.
- Grades **will** probably **be scaled**.

Policies

- The midterm and final examination will be strictly closed book: no formula sheets or calculators will be allowed.
- Late homework assignments receive a grade of 0. The due date of the assignments is always **before** class on the indicated day. If you arrive late then place your homework paper on the main desk in front of the teacher before you find your seat. (Try not to be late)
- Missing a homework or midterm normally results in a mark of 0. Exceptions may be granted in two cases: prior consent of the instructor or a medical emergency. In the latter case, the instructor must be notified within 48 hours of the missed test, and presented with a doctor's note immediately upon the student's return to UBC. When an exception is granted for a

missed midterm, there is no make-up midterm, and the final exam mark will be used instead.

Notes

- We are going to use the optimization software Classic LINDO. You have to download it. Here is the User's Manual.
- Joel Friedman's notes about poker and game theory.

Dates:

Withdrawal Dates

- Last day to withdraw without a W standing: January 19, 2015
- Last day to withdraw with a W standing (course cannot be dropped after this date): February 13, 2015

Term 2 (Jan 05, 2015 to Apr 10, 2015)

Midterm break: February 16-20

Midterm exam: Feb 26 Thursday (in class)

Final: TBA