

# Math 340: Introduction to Linear Programming

## Sections

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- Section 201: Wes Maciejewski (T-TH, 9:30am-11am)
- Section 202: Ozgur Yilmaz (T-TH, 11am-12:30am)

## Course Information

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### Course web pages:

- Section 201: <http://www.math.ubc.ca/~wes/math340.html>
- Section 202: <http://www.math.ubc.ca/~oyilmaz/courses/m340/m340.html>

**Text (Required):** Vasek Chvatal, "Linear Programming".

### Material:

1. Linear programming: problems, motivation (Chapter 1)
2. The simplex method (Chapters 2-4,8)
3. Duality theory (Chapter 5)
4. Revised simplex method (Chapter 7)
5. Sensitivity analysis (Chapter 10)
6. Applications (we will decide together what to cover here -- potential applications: game theory, signal processing, geometry,...)

### Resources:

- **Piazza:** We will be using Piazza for all class-related questions and discussion. Piazza is a question-and-answer platform specifically designed to expedite answers to your questions, using the collective knowledge of your classmates and instructor. It has several features that facilitate discussion of mathematics, most notably support of mathematical typesetting (LaTeX). You are encouraged to answer your classmates' questions, or to brainstorm towards answers, every bit as much as you are encouraged to ask questions. Please [contact me through Piazza](#), instead of by email, with any questions you have concerning MATH 340.
- **Math Learning Center:** The Math Learning Centre (MLC) is a space for undergraduate students to study math together, with support from math tutors, who are graduate students in the math department. Please note that while students are encouraged to seek help with homework, the MLC is not a place to check answers or receive solutions, rather, its aim is aid students in becoming expert learners; to develop critical thinking and skills in a mathematical setting.

If you need help, or would like to discuss any aspect of this course, please make an appointment to see me in my office.

## Grades

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Your grade for the course will be computed roughly as follows:

Homework: 15%  
Midterm: 35%  
Final: 50%

There will be **one midterm** exam, on **Thursday, February 13** in class.

**Missing a 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. **In such cases, there will be no make-up exam.** Instead, the final exam mark will be adjusted to make up for the missed midterm mark.

## Homework Assignments

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Homework assignments will be posted on the course web site. Late homework will not be accepted. The lowest homework grade will be dropped.

**Important Note:** You may collaborate with fellow students on homework assignments, but you must write up your answers independently, in your own words. Any two or more homeworks with some essentially identical answers will be given 0! Please read UBC's [Academic Integrity Code](#).

## Calendar

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Tue, Jan 7	First lecture
Th, Feb 13	<b>Midterm</b>
Feb 17-21	Winter mid-term break
Tue, Apr 8	Last lecture
TBA	Final Exam