

**MATH 361 (MATH 601P)**  
Operations Research I  
*Winter 2015*

**Course Instructor:** Prof. R.J. Stern, Office: LB 901-19 (SGW), Phone: 848-2424, Ext. 3255  
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**Lectures:** Tuesdays and Thursdays 14:45–16:00, room SGW H-403.

**Office Hours:** Thursdays, 16:15-17:15 or by appointment.

**Text:** *Linear Programming: Foundations and Extensions* by R. Vanderbei.

**Available online (free):**

[http://support.dce.felk.cvut.cz/pub/hanzalek/\\_private/ref/Vanderbei\\_Linear\\_Programming.pdf](http://support.dce.felk.cvut.cz/pub/hanzalek/_private/ref/Vanderbei_Linear_Programming.pdf)

**Topics to be covered:** Introduction to Linear Programming (Chapter 1).  
The Simplex Method (Topics in Chapters 2, 3 and 6).  
Duality (Topics in Chapter 5)  
Sensitivity (Topics in Chapter 7)  
Special topics (Chosen from Chapters 11 and 14).  
Introduction to Convex Analysis (Chapter 10, if time permits)

**Calculators:** Only calculators approved by the Department (with a sticker attached as proof of approval) are permitted in the class test and final examination. The preferred calculators are the **Sharp EL 531** and the **Casio FX 300MS**, available at the Concordia Bookstore.

**Assignments:** Students are expected to submit assignments weekly during the last class of the following week. **Late assignments will not be accepted.** Some questions (but not all) will be marked. Solutions, together with this outline, will be posted electronically on the course's Moodle website, which is accessible through your portal.

**Mid-Term Test:** There will be one mid-term test in week 7 or 8.  
**PLEASE NOTE:** It is the Department's policy that tests missed for any reason, including illness, cannot be made up. If you miss a test, the Final Exam will count for 100% of your final grade.

**Final Examination:** At the end of course, there will be a 3-hour closed book final examination.

**PLEASE NOTE:** Students are responsible for finding out the date and time of the final exam once the schedule is posted by the Examination Office. Any conflicts or problems with the scheduling of the final exam must be reported directly to the Examination Office, **not** to your instructor. It is the Department's policy and the Examination Office's policy **that students are to be available until the end of the final exam period. Conflicts due to travel plans will not be accommodated.**

**Final Grade:** The final grade will be the higher of (a) or (b):  
(a) 10% for the assignments, 30% for the midterm test, 60% for the final.  
(b) 100% for the final examination.