

MATH 478 (MATH 618A/MAST 680A)

Non-Linear Programming

Fall 2015

Course Instructor: Dr. R. J. Stern, Office: LB 901-19 (SGW), Phone: 848-2424, Ext. 3255
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Office Hours: Tuesdays & Thursdays, 10:00-11:00 a.m.

Textbook: *Convex Optimization* by Boyd and Vandenberghe.

Available Online: http://www.stanford.edu/~boyd/cvxbook/bv_cvxbook.pdf

Lecture Slides: http://www.stanford.edu/~boyd/cvxbook/bv_cvxslides.pdf

Errata: http://www.stanford.edu/~boyd/cvxbook_erata.html

Assignments: Given weekly and collected weekly. No late assignments will be accepted. *You should provide complete arguments in your homework—not just answers.* Detailed solutions to assigned problems will be posted on Moodle.

Class Test: There will be a class test scheduled in the 7th or 8th week.

Grading: 10% Assignments, 30% Class Test, 60% Final Exam **or** 100% Final Exam.

Weeks	Topics	Chapters
1-2	Convex sets	2
3-4	Convex functions	3
5-6	Convex optimization	4
7-8	Duality	5
9-10	Approximation and fitting	6
11-12	Geometric problems	8
13	REVIEW	