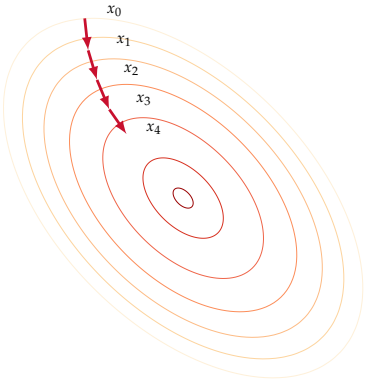
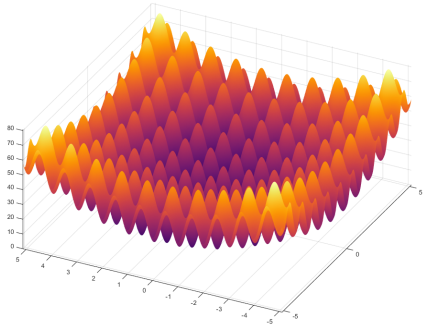
Math 6366 — Optimization Theory





Andreas Mang
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Contact Information

Instructor	Andreas Mang
Email	andreas@math.uh.edu
Website	https://www.math.uh.edu/∼andreas
Office	PGH 614
Office Hours	MW 1:00 pm–2:00 pm (or by appointment)

Course Website

Course material and important announcements will be posted on *blackboard*:

`http://www.uh.edu/blackboard/`

Please visit it on a regular basis. There is also a course website that overviews the lecture and has the syllabus:

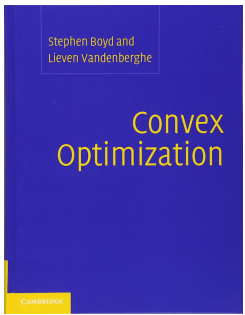
andreas@math/teaching/math6366

Key Points

- Textbook
- Homework Assignments
- Exams
- Grading
- Computational Assignments

Textbook (Not Required)

Convex Optimization
by S. Boyd and
L. Vandenberghe
Cambridge University
Press 2004.



This book can be downloaded here:
http://stanford.edu/∼boyd/cvxbook/

Additional Reading (Not Required)

Introduction to Nonlinear Optimization by A. Beck. SIAM 2014.

Numerical Optimization by J. Nocedal and S. J. Wright. Springer 2006.

Homework

- Homework problems posted on blackboard.
- Late homework will **not** be accepted.
- Homework with lowest score will be dropped.
- There will be **no makeup homework**.

Homework Schedule (Tentative)

	posted	due date
HW 1	08/26/19	09/09/19 @ 12:00pm
HW 2	09/09/19	09/23/19 @ 12:00pm
HW 3	09/23/19	10/07/19 @ 12:00pm
HW 4	10/07/19	10/21/19 @ 12:00pm
HW 5	10/21/19	11/04/19 @ 12:00pm
HW 6	11/04/19	11/18/19 @ 12:00pm

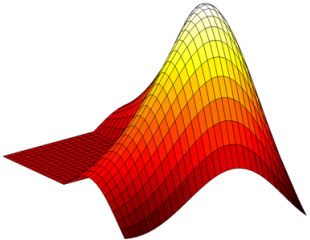
Exam Schedule (Tentative)

	date	time	duration	place
Midterm 1	09/23/19	12:00 pm	50 min	in class
Midterm 2	10/28/18	12:00 pm	50 min	in class
Final	12/11/19	11:00 am	90 min	in class

There will be no makeup exams. Plan on arriving early for the exams.

Computational Assignments

The course will cover computational aspects.



Matlab can be downloaded from University Information Technology webpage (software downloads): https://ssl.uh.edu/infotech/php/software/index.php

Computational Assignments

The GitHub Repo for this course is
https://github.com/andreasmang/optik

Grading

category	percentages	score
homework	30%	$y_3 = 150$
midterm 1	20%	$y_1 = 100$
midterm 2	20%	$y_2 = 100$
final exam	30%	$y_4 = 150$
total	100%	500

overall grade: $x = 100\% \left(\frac{1}{500} \sum_{i=1}^{4} y_i \right)$

Grading

- If you miss an assignment (homework, midterm exam 1 & 2, or final exam) you will get *a score of zero*.
- Grades will be posted on blackboard.
- Grades can be disputed for one week after they have been returned/posted. After that the grade cannot be changed.

Grading

- Lowest score on homework will be dropped.
- Grade on final replaces lowest midterm score if higher.

Some Rules / Suggestions

- Read syllabus and check course website.
- Come to class on time.
- Attendance is *not* mandatory, but encouraged.
- Study with students in this course / section.