Math 260NN: Optimization: Theory and Applications

Spring 2025

INSTRUCTOR Paul J. Atzberger Office Hours: TR 12:15 – 1:45pm

http://atzberger.org/ Location: SH 6712 / ELLSN 2626.



CLASS TIMES TR 11:00 – 12:15pm

ELLSN 2626

DESCRIPTION This course discusses topics in optimization which is concerned with the minimization or

maximization of objective functions along with constraints on permissible solutions. The course covers different types of problems that can be treated in this form along with development of theory and algorithms for their solution. The course will also discuss motivations and applications in the sciences and engineering, decision problems, and machine learning methods. More information can be found on the course website.

PREREQUISITES Calculus and Linear Algebra.

TEXTBOOKS An Introduction to Optimization (fifth edition) by E. Chung, W. Lu, S. Zak.

GRADING Homework/Quizzes 30%

Midterm 30% Final Exam/Project 40%

POLICIES Assignments will be assigned in class and posted on the course website. Prompt

submission of homeworks will be required. While no late homework will be accepted, one missed homework will be allowed without penalty. While it is permissible for you to discuss materials with classmates, the submitted homework must be your own work.

There is a policy of no video or pictures to be taken during lectures. Instead, one should take notes and pay particular attention. There is also a policy of no texting, e-mailing, or social media during the class. It is hoped one is avoiding such distractions to make the

most of the class.

QUIZZES Pop quizzes will be given throughout the quarter (approximately weekly).

EXAMS A midterm exam will be on Thursday, May 8.

Final exam (see university calendar).

TOPICS See the website for additional information.

WEBSITE http://teaching.atzberger.org/