AMATH 515 A: Optimization: Fundamentals and Applications

Meeting Time: MW 9:00am - 10:20am

Location: CMU 120

SLN: 10216

Joint Sections:
- 2019,winter,IND%20E,515,A
- 2019,winter,MATH,515,A
- 2019,winter,AMATH,515,B

Instructor:
Aleksandr Aravkin
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Catalog Description:
Maximization and minimization of functions of finitely many variables subject to constraints. Basic problem types and examples of applications; linear, convex, smooth, and nonsmooth programming. Optimality conditions. Saddlepoints and dual problems. Penalties, decomposition. Overview of computational approaches. Prerequisite: Proficiency in linear algebra and advanced calculus/analysis; recommended: Strongly recommended: probability and statistics. Desirable: optimization, e.g. Math 408, and scientific programming experience in Matlab, Julia or Python. Offered: jointly with IND E 515/MATH 515.

Credits: 5.0

Status: Active

Last updated: October 18, 2018 - 9:00pm

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