MATH 650 - Foundations of Optimization

Study of the fundamental theory underlying linear and nonlinear optimization; unconstrained and constrained optimization; first- and second-order optimality conditions for unconstrained optimization; Fritz John and Kuhn-Tucker conditions; fundamental notions of convex sets and convex functions; theory of convex polyhedral; duality; linear programming, quadratic programming.
Prerequisite: Prerequisites: MATH 251, MATH 430, MATH 302 or consent of instructor.