Course Overview

An Introduction to Optimization
Spring, 2015

Wei-Ta Chu
Class Information

- **Time:** 13:15~16:00, Tuesday
- **Location:** Room 205
- **Lecturer:** Wei-Ta Chu (Office 413, CSIE Building)
- **Course website:**
- **TA:** To be announced
Grading (subject to change)

- Homework (30%)
- Midterm (30%)
- Final Project (40%)
Syllabus

- Part 1: Mathematical Review
- Part 2: Unconstrained Optimization
- Part 3: Linear Programming
- Part 4: Nonlinear Constrained Optimization
Prerequisite

- Linear Algebra
- Calculus
- Concepts from Geometry
Why This Course?

- Optimization is central to any problem involving decision making
- This course
  - introduces fundamental ideas of optimization theories
  - lets you know how to apply optimization techniques to research problems
  - will request you to formulate a (your) research work as an optimization problem and to solve it.
What You Should Do Now?

» Review Linear Algebra
  » Any textbook about Linear Algebra (in most cases, knowing basic parts is sufficient for you to take this course)

» Review Calculus
  » Any textbook about Calculus (in most cases, knowing basic parts is sufficient for you to take this course)
  » 微積分之屠龍寶刀
  » 微積分之倚天寶劍