

Combinatorial Optimization

Welcome to Combinatorial Optimization! about the class.

Instructor: Prof. Cowen. Office: 238 Halligan Hall.

Phone: 627-5134. Office hours: Tuesdays, 6PM and by appointment
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Text: *Combinatorial Optimization* by Cook, Cunningham, Pulleybank and Schrijver, Wiley, 1998.

Course Prerequisites: Comp 160 and Linear Algebra.

Teaching Assistant: Arthur Brady. Email: abrady@cs.tufts.edu. Office hours: Monday, TBA.

Course Webpage: <http://www.cs.tufts.edu/~cowen/co>

Grading: Based on weekly hw assignments (HW due Sept 13 is attached).

Tentative Syllabus: (subject to change)

- September 6: Introduction to LP / bipartite matching
- September 13: Shortest Paths (Chapter 2)
- September 20: Max flow/Min cut I (Chapter 3)
- September 27: Linear Programming I
- October 4: Linear Programming II
- Oct 11: NO CLASS, Tufts on a MONDAY schedule
- October 17: Minimum Cost Flow problems (Chapter 4)
- October 25: General Matchings I (Chapter 5)
- November 1: General Matchings II (Chapter 5 cont)
- November 8: Integrality of polyhedra (Chapter 6)
- November 15: The Travelling Salesman Problem (Chapter 7)
- November 22: Matroids (Chapter 8)
- November 29: Integer programs and Approximation Algorithms
- December 6: Last Class