

**October 27, 2011** Room 16 (14:00-16:00), Room 42 (16:00-19:00):

**Introduction to Combinatorial Optimization**

(tailored for students who did not follow an Operations Research course):

Contents

1. Introduction: Some easy examples
2. Linear Programming
3. Optimization problems
4. Integer Linear Programming

**November 3, 2011** Room 16 (14:00-16:00), Room 52 (16:00-19:00)

**November 7, 2011** Room 82 (14:00-19:00)

**November 10, 2011** Room 52 (14:00-19:00)

**November 14, 2011** Room 82 (14:00-19:00)

**Models and Algorithms for Matching and Assignment Problems**

Contents

1. Introduction
2. Theoretical foundations: matching problems
3. Maximum matching applications
4. Linear sum assignment problem
5. The Hungarian algorithm
6. Non-Hungarian algorithms
7. Other linear assignment problems (k-Cardinality, bottleneck, balanced)
8. Quadratic assignment problems

The slides of each lecture will be available few days in advance at my site:

[http://www.or.deis.unibo.it/staff\\_pages/martello/cvitae.html](http://www.or.deis.unibo.it/staff_pages/martello/cvitae.html) --> Courses --> PhD courses