

Applied Operations Research (C-B4051E.1)

Bachelor in Data Science and AI

Course Info

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Matteo Salani, Ph.D.

Contact:

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Clarification meeting: by appointment, preferably on Wednesday or drop me a line via Teams/email.

Course organization

- ▶ Teaching material on iCorsi (M-B4050E.1 - C-B4051E.1)
 - ▶ Please subscribe (password AORD2A)
 - ▶ Official communications are those on iCorsi
- ▶ Recommended textbooks:
 - ▶ Any text on Optimization or Operations Research
 - ▶ M. Bierlaire (2015), Optimization, principles and algorithms, EPFL Press
 - ▶ C. Vercellis (2008), Ottimizzazione, McGraw-Hill (Italian)
 - ▶ Fabio Schoen (2006), Modelli di Ottimizzazione per le Decisioni, Editrice Esculapio (Italian)
 - ▶ Mauro Dell'Amico, 120 Esercizi di Ricerca Operativa, Ed. Pitagora (Italian)
 - ▶ Robert Fourer, David M. Gay, and Brian W. Kernighan (2008), AMPL: A Modeling Language for Mathematical Programming

Course organization

- ▶ 1 Lecture: Wed 15:15 - 16:45, Room D1.09
- ▶ 1 Lab session: Thu 11:45 - 12:30, Room D1.09
- ▶ 45min/week of asynchronous activities

Course evaluation:

- ▶ Four short written exams (30' on Wednesdays or Thursdays)
 - ▶ Exercises on optimization algorithms
 - ▶ Modelling exercises: starting from practical scenarios, formulate the corresponding mathematical optimization model
 - ▶ Theory questions (multiple choice or short answer) covering all course topics
 - ▶ Single sided A4 cheat sheet (to be handed in)
- ▶ Spring session: recovery of insufficient tests (< 4.0)