Operations Research M (Master's Degree Course)

Information

- **Module 1 Mathematical Optimization (48 hours), Blended Learning:**
  Silvano Martello (DEI, 3rd floor) `silvano.martello@unibo.it`

  `https://www.unibo.it/sitoweb/silvano.martello/cv`

  `https://en.wikipedia.org/wiki/Silvano_Martello`

  Office hours: Monday, 6:00pm–7:00pm and by email appointment.

- **Module 2 Discrete Simulation (16 hours), Traditional lectures:**
  Andrea Lodi (DEI, 4th floor & Cornell Tech, NY) `andrea.lodi@unibo.it`

  `https://www.unibo.it/sitoweb/andrea.lodi/cv`

  Office hours: by email appointment.

- We answer to emails provided – they come from an Unibo email address;

  – the answer is very short (< 1 line).

- **Tutors for Module 1:**
  Alberto Locatelli (Università di Modena e Reggio Emilia)
  Consultation by email appontment: `alberto.locatelli@unimore.it`

  Dario Vezzali (Università di Modena e Reggio Emilia) `dario.vezzali@unimore.it`

- **Tutor for Module 2:**
  Antonio Punzo (DEI) **Consultation** by email appointment: `antonio.punzo5@unibo.it`

- **Official home page**:

  `https://www.unibo.it/en/study/`
  `phd-professional-masters-specialisation-schools-and-other-programmes/`
  `course-unit-catalogue/course-unit/2024/467997`

- **Virtuale:**

  `https://virtuale.unibo.it/course/view.php?id=56760`

  – slides;

  – dates of exam sessions;

  – written test results;

  – announcements.

- **Personal home page:**

  `www.or.deis.unibo.it/staff_pages/martello/cvitae.html`
  $\rightarrow$ **link Courses:**

  – exercises;

  – examples;

  – applets and applications.

- **Assessment method:**

  written test, followed, if successful,

  by an "oral" test (multiple choice quiz on **EOL**).

- **Written test:**
  - **mandatory online registration at Almaesami at least two working days in advance**;
  - solution of two/three numerical exercises (one/two for module 1; one for module 2); the two exercises must be solved in the **same written test**;
  - approximate duration: $1 + 1$ hours;
  - **permitted:** books, handwritten notes, printout of slides, non-programmable calculators;
  - **not permitted:** programmable calculators, mobiles, laptops, copies of books;
  - **marked tests** only available on the settled date;
  - when the test is handed in for the first time, a **3 point bonus** is added to the overall mark;
  - the **written test mark** is given by:
    score of the test on Module 1 + score on the test on Module 2 + bonus (the first time only);
  - **if a student is caught cheating**
    her 3 point bonus will be canceled, and a negative mark will officially be registered.

- **Oral test:** theoretical contents of **Module 1**;

  - **deadline:** given k = examination session in which a positive mark in the written test has been obtained, the oral test must be taken within examination session $k + 2$;

  - in case of failure of the oral exam,
    the mark obtained in the written test is preserved (within its validity window);

  - the students who decline to record the proposed overall mark
    must repeat both written and oral test.

- **Overall mark** $= \lceil \frac{2}{3} \text{ (written test mark)} + \frac{1}{3} \text{ (oral test mark)} \rceil$.
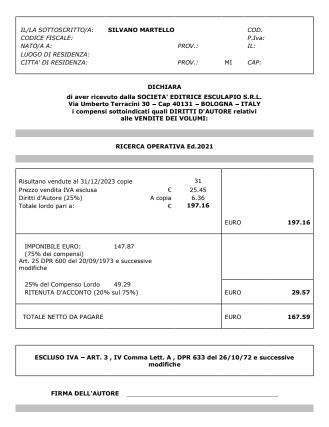
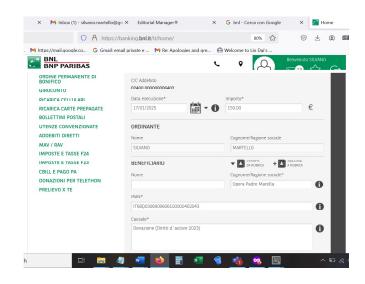- **Permitted: nothing**.

  If a student is caught cheating
  her/his written test score will be canceled, and a negative mark will officially be registered.

- **Important information**.

  The oral exam (multiple choice quiz) is normally carried out in a computer lab.
  In order to access it, it is **mandatory** to complete the course on safety (e-learning courses Module 1 and Module 2).

- **Textbook** (with exercise solutions): *S. Martello, Ricerca Operativa*, 2024, Esculapio, Bologna.

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- the textbook includes the lectures of **Network Optimization M**.

- **additional exercise solutions**
  S. Martello, D. Vigo. Esercizi di Ricerca Operativa, Esculapio;
  S. Martello, D. Vigo. Esercizi di Simulazione Numerica, Esculapio.