

# Ph.D in Civil system engineering (32<sup>nd</sup> cycle)

Coordinator: prof. Andrea Papola

**Scholarships: 4 (1 for foreign students)**

**Duration: 3 years**

Web page of the University: <http://www.unina.it/didattica/post-laurea/dottorati-di-ricerca/english-version>

Web page of the Department: <http://www.dicea.unina.it/dottorato.php?id=1>

## Taught courses

Ph.D. students must obtain 27 credits within the 3 years, corresponding to 8 courses:

### 4 mandatory courses:

- *The Entrepreneurial Analysis of Engineering Research Projects (3 CFU)* (Prof Luca Iandoli)
- *Communicating and disseminating your research work (3 CFU)* (Prof. Mo Mansouri)
- *Spoken English (6 CFU)*
- *a computer science course choosing among different available courses like for example:*
  - *Introduction to MatLab* (Prof. Alessandra d'Alessio)
  - *MatLab application to transportation systems* (prof. Vittorio Marzano)
  - *Geographic information system (GIS) I Level (3 CFU)* (prof. Daniela Ducci)

### 4 Courses to choose among a list of offered courses, such as:

- *Decision Aiding with Multiple Criteria* - Prof. Giuseppe Bruno
- *Models and methods for the Optimization (Module 1)* (3 CFU) - prof. Antonio Sforza
- *Models and methods for the Optimization (Module 2)* (4 CFU) - prof. Claudio Sterle
- *Project Management* - Prof. Guido Capaldo
- *Scientific Writing* - Lecturer: Chie Shin Fraser
- *Statistics* (3-6 CFU) - prof. Roberta Siciliano
- *Hydraulic measurements* (Paola Gualtieri)
- *CFD methods in environmental hydraulics* (Carlo Gualtieri)
- *Advanced topics in environmental hydraulics* (Carlo Gualtieri)

## Research themes in the transportation sector

- advanced discrete choice modelling and econometrics, with applications to passenger and freight;
- o-d flows estimation/updating in within-day and day-to-day dynamics;
- traffic network sensors location;
- intelligent transport systems (ITS);
- urban, national and international freight and logistics modelling;
- city logistics.