



PhD program in Design, Manufacturing and Operations Engineering

During the three years the students are required to complete their cultural background by attending university courses, seminars, industry courses, summer schools.

Coursework requirements

For all the students it is mandatory to complete at least 12 CFU of university courses during their first year. The university courses are not necessarily those offered at University of Rome Tor Vergata. However, the courses are usually chosen after consultation with the tutor or the coordinator of the doctoral program. The course topics need not to be specific about the research pursued. It is expected that their attendance provides the student with a specific background to broaden his competences. At the end of each course, the student is requested to submit a report or complete a project about the course contents.

The following is a (not exhaustive) list of the recent courses attended by students of our doctoral program:

- Gestione dell’innovazione e dei progetti - 6 cfu
- Misure Meccaniche e Termiche - 6 cfu
- Laboratorio di elettronica analogica - 6 cfu
- Industrial Informatics
- Fundamentals of Manufacturing Processes
- Materials Science and Engineering
- Tecnologie dei Sistemi Industriali - 12 cfu
- Mechanics and Multiphysics Modelling of Intelligent Materials and Micro Electro-Mechanical Systems - 5 cfu
- Materiali metallici - 6 cfu



- Tecnologia di produzione per l'industria 4.0 - 6 cfu
- Elettronica - 6 cfu
- Controllo di Sistemi Industriali - 9 cfu
- Nanostrutture e Nanomateriali - 6 cfu
- Fondamenti Di Progettazione Meccanica - 6 cfu
- Pattern Recognition and Machine Learning - 6 cfu
- Chimica delle Macromolecole con Laboratorio - 6 cfu

Seminars

The doctoral program organizes and its faculty members each year organize seminars whose topics are within the cultural areas of interest of the program itself. The participation of students to these events is mandatory or strongly recommended.

In the following it is reported is a (not exhaustive) list of recent seminars/summer schools attended by our students:

- Architetture powertrain su veicoli ibridi ed elettrici
- Introduzione al Machine Learning
- Artificial Intelligence e Machine Learning for Complex Systems
- Experimental and Numerical Advances in Nanotechnology for Precision Medicine
- Processing of composites of polymers and carbon based nanoparticles
- Tecnologie di produzione per l'industria 4.0

Summer schools

- International Multibody Summer School (Parma) (5cfu)
- Fracture Mechanics Summer School (Catania)
- XXIII Summer School “Francesco Turco” – Industrial Systems Engineering (Palermo)