



MATERIALS ENGINEERING

PHD PROGRAMS



POLITECNICO
MILANO 1863

MILANO
LEONARDO
CAMPUS

Programme

The Ph.D. Program in Materials Engineering provides high educational opportunities to young talents and executives who intend to become proactive researchers and professionals skilled in the design, production and application of both traditional and innovative materials, their optimization for specific applications, the prediction and assessment of their performance, and in developing new concepts in any materials-related fields.

Highlights of the Ph.D. Programme in Materials Engineering are:

- a rigorous scientific approach to address outstanding research
- an effective interdisciplinary approach
- connection with international leading scientific and technical communities.

Mission and goals

The Ph.D. Program in Materials Engineering aims at training Ph.D. laureates having a common background and specialized qualifications in advanced research areas.

The Program includes advanced research and training on:

- Research and development in traditional materials (polymers metals, ceramics, concretes, composites) and related technologies.
- Specific application areas: materials for energy, materials for environment, materials for electronics, optoelectronics and photonics, materials for cultural heritage, materials for product design and packaging, and biomaterials.
- Smart, responsive and self-healing materials, nanostructured materials.
- Materials corrosion and durability, life cycle assessment, coating and surface functionalization.

PhD students have the opportunity to attend specialized courses on materials science and technology, with a custom study plan. The strong integration with the Doctorate School of Politecnico di Milano also allows to increase knowledge with transversal courses, to gain soft skill and join stimulating activities.

The research activities related to the PhD theses develop with a full-time commitment along the three years of the PhD Program, to achieve original results at the state of the art. Stages in industries or in laboratories in Italy or abroad are offered.

Career Opportunities

The knowledge and skills of a Ph.D. in Materials Engineering enable graduates to pursue their career both in academic tenure track and in the manufacturing industry given the quest for innovation in the production, application and conservation of traditional materials and for the development of innovative materials allowing radically new, currently unforeseeable applications.

Eligible students

For the admission to the PhD Courses a Master degree in Scientific-technological areas is required. Skills in Mathematics, Physics, Chemistry, Material Science, and Engineering are prerequisite for the Course attendance.

Scholarships

5-10 Scholarships are assigned yearly to students admitted to the PhD Course, according to the ranking obtained in the selection. Some scholarships (usually supported by public or private agencies/companies) are linked to specific research topics and assigned on the basis of specific skills and attitudes shown by the candidates.

Contacts

For further information, please visit the following web site www.polimi.it/phd, or contact the School of Doctoral Programs - Politecnico di Milano at phdschool@polimi.it.

For specific information on the Courses and Curricula, visit the web site: www.dottorato.polimi.it/en/phd/IM or contact via e-mail the coordinator (chiara.bertarelli@polimi.it), the vice-coordinator (francesco.briatico@polimi.it) or the Secretariat (phd-im@polimi.it).

