

STRUCTURAL, SEISMIC AND GEOTECHNICAL ENGINEERING



POLITECNICO
MILANO 1863

MILANO
LEONARDO
CAMPUS

STRUCTURAL, SEISMIC AND GEOTECHNICAL ENGINEERING

PHD PROGRAMS

Programme

Structural, Seismic and Geotechnical Engineering encompasses different and multi-disciplinary areas: constructions and construction materials, bio-materials, micro-systems and metamaterials; engineering seismology and earthquake-resistant structures; structural dynamics; computational mechanics; geotechnical engineering and geomaterials; effects of environmental actions. Courses are mainly held at Milano Leonardo Campus, but also in nearby universities and in higher-education or research centres (International Centre for Structural Mechanics-CISM in Udine and Joint Research Centre-JRC in Ispra-Varese).

Mission and goals

Candidates are offered advanced courses on a variety of topics concerning materials and structural mechanics (including micro- and nano-mechanics), computational and experimental methods, the focus being always on both basic issues and engineering applications. Great attention is given to fundamental topics, highly-debated within the scientific community, and to application-oriented issues of interest for the public and private industry, for designers and institutions dealing with structural safety and reliability and with the environmental impact of structures.

The study plan includes courses and seminars given by scientists, experts and researchers active either in the Politecnico di Milano or in other Italian and foreign universities, research institutions and high-tech firms.

To earn credits and to start or refine their dissertation, Candidates are encouraged to spend a period abroad in one of the universities or research centers belonging to the broad network of research institutions having scientific interactions with the Politecnico di Milano. At the same time, the PhD Course favors the visit of foreign scholars to give short courses in Milan, to foster interaction of the Candidates with prominent members of the international scientific community.

Career Opportunities

Design bureaus, construction firms, high-tech and industrial engineering companies, academic institutions, research centres and public bodies, both in Italy and abroad, offer plenty of opportunities to the new PhDs, whose large-spectrum formation and modeling capability are highly praised in Civil and Industrial Engineering.

Eligible students

Ideal candidates are students with a MS degree in Civil Engineering (with a major in Structures, Geotechnics or Earthquake Engineering) or Environmental, Building, Mechanical, Aeronautical and Architectural Engineering, as well as in Mathematical Engineering, Bio-Engineering and Materials Engineering. Candidates coming from other areas may be as well eligible, provided that they include in their PhD curriculum a number of propaedeutic courses (at the MS level). In order to enter the Ph.D. programme, candidates must possess an Italian Master of Science degree, or an equivalent academic qualification obtained abroad, comparable in duration and content to the above Italian qualification, and approved in advance by the competent academic authorities.

Scholarships

Most of the available scholarships come from the Italian Ministry of Higher Education (up to 70%). The remaining 30% consists of fellowships granted by the Department of Civil and Environmental Engineering, by the Industry or by cultural institutions. On average, from 6 to 8 fellowships are available on an annual basis.

Contacts

For further, more detailed information, please contact phdissg-dica@polimi.it or the school of the Doctoral Programmes phdschool@polimi.it, or visit the web site: <https://www.dottorato.polimi.it/en/phd-programmes/engineering/structural-seismic-and-geotechnical-engineering>

