

STRUCTURAL, SEISMIC AND GEOTECHNICAL ENGINEERING

PHD PROGRAMS



POLITECNICO
DI MILANO

MILANO
LEONARDO
CAMPUS

Programme

Structural, Seismic and Geotechnical Engineering encompasses different areas, from constructions and construction materials to bio-materials and bio-structures, from engineering seismology and earthquake-resistant structures to structural dynamics, from computational mechanics to geotechnical engineering and environmental actions. Courses are mainly held at Milano Leonardo Campus, but also in nearby universities (Pavia, Brescia and Turin) 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 several advanced courses on a variety of topics concerning materials and structural mechanics (micro-and nano-mechanics included), computational and experimental methods, and structural reliability, the focus being always on both basic issues and engineering applications. Consequently, great attention is given to many fundamental topics still highly-debated within the scientific community, and to many application-oriented issues, that are of direct interest for the public and private industry, for designers and institutions dealing with structural safety and reliability, and with the environmental impact of the 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 highly suggested to spend a period abroad, in one of the universities or research centers that have systematic scientific relations with the Politecnico di Milano. At the same time, the PhD Course favors the visit of foreign scholars, to give short courses in Milan, in order to allow the Candidates to interact with the international community.

Career Opportunities

Design bureaus, construction firms, 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) or Building, Mechanical, Aeronautical and Architectural Engineering, as well as in Bio-Engineering and Materials Engineering. Candidates coming from other areas are 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 80%), some without any specific target (60%), and some focused on specific subjects such as advanced materials and biotechnologies (20%). The remaining 20% 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 general-purpose information, please contact emanuela.zonca@polimi.it, or the school of the Doctoral Programmes – Politecnico di Milano at dottorato.ricerca@ceda.polimi.it. and visit the web site www.dica.polimi.it/dottorato

