

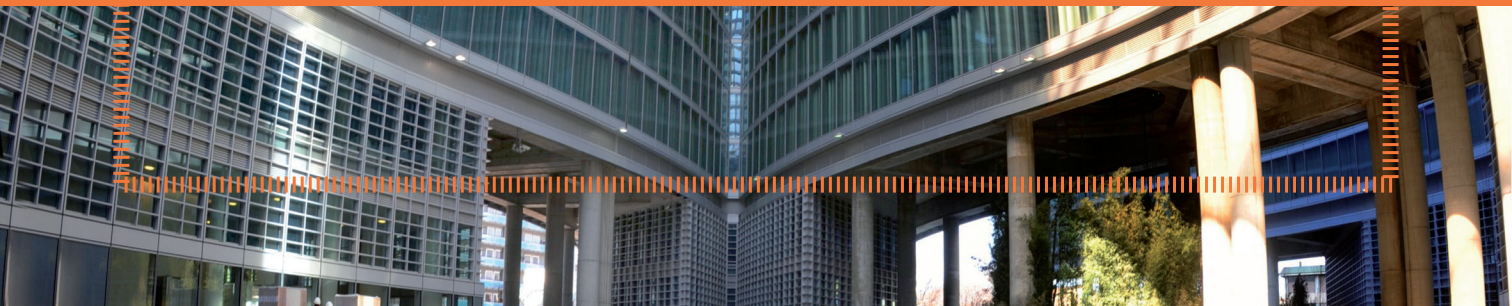


POLITECNICO
MILANO 1863

SCHOOL OF CIVIL, ENVIRONMENTAL
AND LAND MANAGEMENT ENGINEERING



CIVIL ENGINEERING



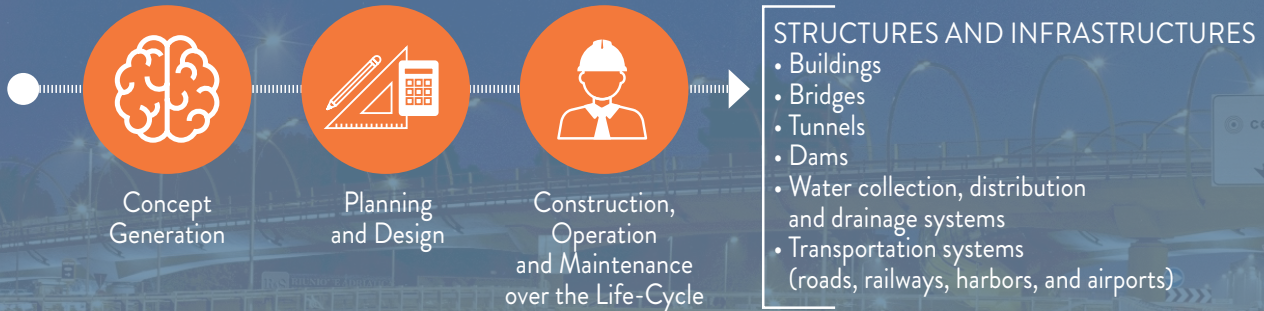
THE DEGREE PROGRAM IN CIVIL ENGINEERING

Civil Engineering deals with the planning, design, construction, assessment, monitoring, maintenance and management of structures and infrastructures, including buildings, bridges, tunnels, dams, water collection, distribution and drainage systems, transportation systems such as roads, railways, harbors, airports, and other engineering works that play a fundamental role for the economic growth and sustainable development of the modern society and resilient communities.

The realization of these civil engineering systems requires the capability to face complex challenges related to the rapid change of global socio-economic processes. This implies the fulfillment of continuously increasing safety and functionality requirements and the sustainable usage of natural resources, which may significantly affect both the economy and environment over time, involving future generations.

The Bachelor programme (BSc) in Civil Engineering aims at providing future professionals with sound theoretical principles of mathematics, physics, chemistry and computer science, together with the fundamentals of the core subjects of Civil Engineering (including surveying, mechanics of fluids, solids, soils and structures, structural design, hydraulic engineering works, transportation infrastructures).

WHAT DOES A CIVIL ENGINEER DO?



EDUCATIONAL PROGRAM: LAUREA (BACHELOR OF SCIENCE)



TOPICS

BASIC DISCIPLINES

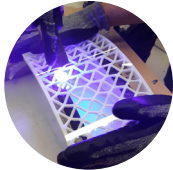
- > Mathematics
- > Geometry
- > Physics
- > Computer science
- > Chemistry
- > Rational mechanics

CORE DISCIPLINES

- > Surveying and data processing
- > Structural mechanics
- > Hydraulics
- > Geotechnics
- > Structural design
- > Hydraulic engineering
- > Construction of roads, railways, and airports



1st YEAR
(7 Exams)



2nd YEAR
(6 Exams)



3rd YEAR
(7 Exams)



DEGREE

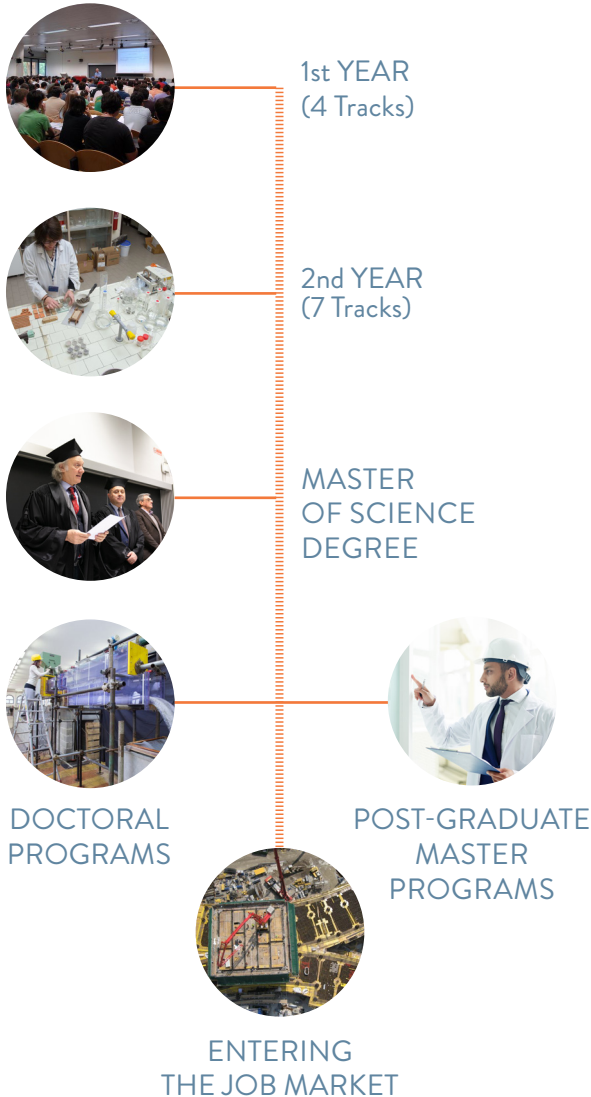


ENTERING
THE JOB
MARKET







MASTER OF SCIENCE
EDUCATIONAL
PROGRAM

LAUREA MAGISTRALE (MASTER OF SCIENCE)



TRACKS

The 2-year Master of Science program offers seven tracks within four main areas, which allow graduate students to specialize in different sectors.

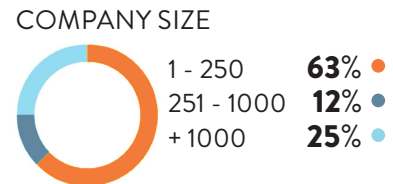
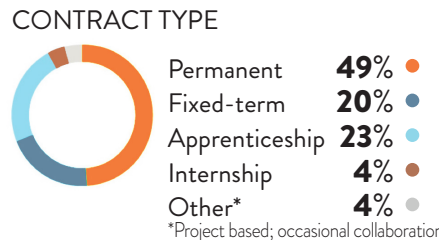
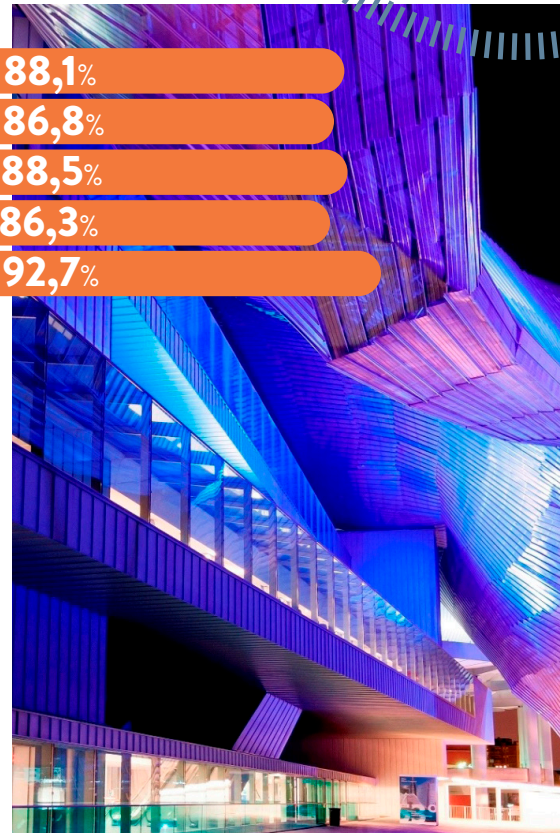
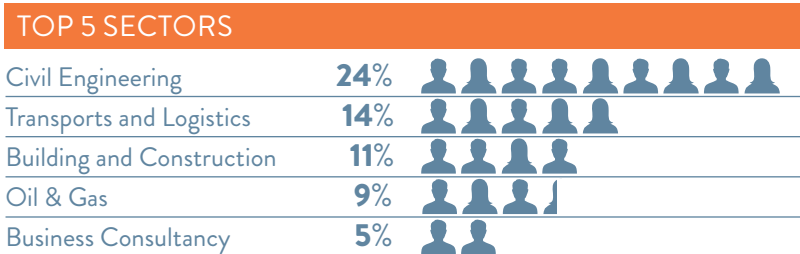
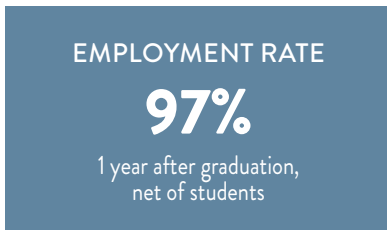
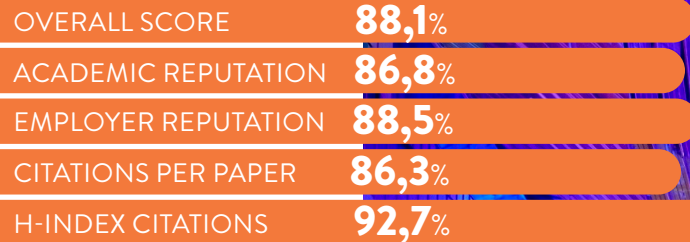
-  **STRUCTURES:** structural design and assessment of civil and industrial buildings, large structures, bridges, structural components for industrial plants.
 - > Design of New Structures
 - > Assessment of Existing Structures
 - > Advanced Structural Analysis
 - > Earthquake Engineering
-  **GEOTECHNICS:** foundations, retaining walls, tunnels, underground pipelines, stability of slopes and excavations.
-  **WATER ENGINEERING:** free surface water and groundwater, use and management of water resources, land hydraulic protection, civil and industrial plants.
-  **TRANSPORTATION INFRASTRUCTURES:** design, construction, and management of roads, railways, harbors, airports.



CIVIL ENGINEERING AT POLITECNICO DI MILANO EXCELLENCE IN EDUCATION AND RESEARCH



QS WORLD UNIVERSITY RANKINGS 2021 CIVIL & STRUCTURAL ENGINEERING



Source of employment data: Career Service - Politecnico di Milano (2021)

REQUISITES AND APPLICATION PROCEDURE

In order to enter the degree program, an entrance test (Test On Line) shall be carried out during sessions predefined by Politecnico di Milano. Alternative tests accepted by Politecnico di Milano include SAT-GRE or GMAT above the minimum required.

<https://www.polimi.it/en/international-prospective-students>

<https://www.poliorientami.polimi.it/come-si-accede/ingegneria>



<http://www.ingciv.polimi.it/en>



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