Civil Engineering works developed along with the progress of humanity. Civil structures and infrastructure systems are the backbone of modern society and among the major drivers of the economic growth and sustainable development of countries.
Civil Engineering deals with planning, design, construction, assessment, monitoring, maintenance and management of **structures and infrastructures**.

Civil Engineers play a fundamental role in everyday life imprinting the backbone of our society with buildings, bridges, tunnels, dams, water collection, distribution and drainage systems, transportation systems such as roads, railways, harbors, and airports.
Laurea (Bachelor of Science)

Starting from the incoming academic year, a **new track** entirely taught in **English** is established also at the **Bachelor level**, and offered jointly with the existing track in Italian. **Elective** courses both in Italian and English will be available.

The first year of the Bachelor Degree program is devoted to basic engineering subjects. The second and third years cover the core subjects of Civil Engineering.
What will you study?

The English track will include courses of high topicality related to diagnostics, monitoring, maintenance and management of **existing structures and infrastructures**.

<table>
<thead>
<tr>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATHEMATICAL ANALYSIS I AND GEOMETRY</td>
<td>DIFFERENTIAL EQUATIONS</td>
<td>STRUCTURAL DESIGN</td>
</tr>
<tr>
<td>COMPUTER SCIENCE</td>
<td>RATIONAL MECHANICS</td>
<td>GEOTECHNICS</td>
</tr>
<tr>
<td>CHEMISTRY A</td>
<td>SURVEYING AND DATA PROCESSING</td>
<td>HYDRAULIC ENGINEERING</td>
</tr>
<tr>
<td>PHYSICS I AND PHYSICS IIA</td>
<td>HYDRAULICS</td>
<td>CONSTRUCTION OF ROADS, RAILWAYS, AND AIRPORTS</td>
</tr>
<tr>
<td>MATHEMATICAL ANALYSIS II</td>
<td>STRUCTURAL MECHANICS</td>
<td>NON DESTRUCTIVE TESTING</td>
</tr>
<tr>
<td>CONSTRUCTION MATERIALS</td>
<td>PROJECT MANAGEMENT</td>
<td>STRUCTURAL MONITORING</td>
</tr>
<tr>
<td>ENGINEERING GEOLOGICAL SURVEY</td>
<td>FISICA TECNICA #</td>
<td>ENVIRONMENTAL ENGINEERING #</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DURABILITA' DEI MATERIALI E TECNOLOGIE PER IL RESTAURO DELLE STRUTTURE #</td>
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<td>ELETTROTECNICA #</td>
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<td></td>
<td></td>
<td>TECNICA DEL CANTIERE #</td>
</tr>
</tbody>
</table>

# Elective courses
Laurea Magistrale (Master of Science)

The 2-year Master of Science programme aims at strengthening the basic education provided by the Bachelor programme and, at the same time, achieving advanced knowledge of the Civil Engineering core subjects.
The 2-year Master of Science programme offers five tracks which allow graduate students to specialize in different sectors.

**EARTHQUAKE ENGINEERING**
seismic design of new structures, assessment and retrofit of existing structures, effect of surface geology on earthquake ground motion.

**STRUCTURES**
structural design and assessment of civil and industrial buildings, large structures, bridges, structural components for industrial plants.

**GEOTECHNICS**
foundations, retaining walls, tunnels, underground pipelines, stability of slopes and excavations.

**HYDRAULICS**
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.

The five tracks – three of them entirely taught in English – allow graduate students to specialize in Earthquake Engineering, Structures, Geotechnics, Hydraulics, or Transportation Infrastructures.
Professional opportunities

Civil Engineers work in the field of constructions and infrastructures, which may require advanced methodologies to fulfill particular safety levels (large bridges and roofs, tall buildings, large tunnels and excavations, off-shore structures, and structures for energy production).

PROFESSIONAL FIRMS AND COMPANIES operating in the design, construction and maintenance of civil structures and infrastructure systems

UNIVERSITIES and higher education research institutions

PUBLIC OFFICES responsible for design, planning and control of urban and land management

COMPANIES, BODIES, CONSORTIA AND AGENCIES dealing with management and control of structural and infrastructural facilities

Graduates from Civil Engineering degree program (Master of Science) must pass a professional examination in order to be included in the Italian Professional Register of Civil and Environmental sectors.
International excellence

According to the prestigious 2020 QS World University Ranking, in the field of Civil & Structural Engineering, Politecnico di Milano is ranked as the 1st in Italy, 5th in Europe, and 7th in the world.

OVERALL SCORE 92.8%
ACADEMIC REPUTATION 88.4%
EMPLOYER REPUTATION 99.1%
CITATIONS PER PAPER 89.1%
H-INDEX CITATIONS 95.6%

The appreciation of our Civil Engineering graduates in the job market is particularly high, being Politecnico di Milano ranked as the second in the world according to the 2020 QS Ranking.
The enhancement of the educational offer, with the English track, strengthens the aptitude of graduates from Politecnico di Milano to effectively work in an international context.
Contracts and companies

The employment statistics of Civil Engineering graduates at Politecnico di Milano prove the excellent working positions in companies of various type and size.

Graduates from Politecnico di Milano work both in the private (95% Master of Science degree - 98% Bachelor of Science degree) and public sector (5% Master of Science degree - 2% Bachelor of Science degree).
# Open Days 2021: Live Sessions

The educational offer in Civil Engineering at Politecnico di Milano will be presented in Live Sessions taking place during the Open Days 2020. Live Sessions delivered both in English and Italian are scheduled.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Degree Program</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, March 18th</td>
<td>3:00pm</td>
<td>Ingegneria Civile</td>
<td>Italian</td>
</tr>
<tr>
<td></td>
<td>5:00pm</td>
<td>Civil Engineering</td>
<td>English</td>
</tr>
<tr>
<td>Friday, March 19th</td>
<td>3:00pm</td>
<td>Ingegneria Civile</td>
<td>Italian</td>
</tr>
<tr>
<td></td>
<td>5:00pm</td>
<td>Civil Engineering</td>
<td>English</td>
</tr>
<tr>
<td>Saturday, March 20th</td>
<td>10:00am</td>
<td>Civil Engineering</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>12:00am</td>
<td>Ingegneria Civile</td>
<td>Italian</td>
</tr>
</tbody>
</table>

[Online registration:](https://www.polimi.it/landingpages/opendays-2021/)
Open Days 2021: Survey

A new track on Earthquake Engineering, entirely taught in English, has been recently established within the Master of Science Degree Program in Civil Engineering at Politecnico di Milano.

Are you aware of Seismic Risk?

Test yourself with a questionnaire!

https://forms.gle/6Jw5XcyL7BpCcg9y9

The results of the survey will be made available after the Open Days on the official website of the Civil Engineering Degree Program.

http://www.ingciv.polimi.it/en
Dream Big: Engineering Our World

Narrated by Academy Award winner Jeff Bridges

From the Great Wall of China and the world’s tallest buildings, to solar cars and smart, sustainable cities, the film Dream Big celebrates the human ingenuity behind engineering marvels and reveals the heart that drives engineers to create better lives for people around the world.

American Society of Civil Engineers (ASCE) and MacGillivray Freeman’s.

Watch Dream Big: Engineering Our World to learn more about ancient and modern civil engineering marvels and the key role of Civil Engineers in creating a better world, enhancing the quality of life, and shaping our future.

Link: https://vimeo.com/463655567
Password*: dreambig
* case sensitive - valid through Saturday March 27th