



POLITECNICO
MILANO 1863

BACHELOR AND MASTER OF SCIENCE IN MANAGEMENT ENGINEERING



European Business Schools
Ranking 2019



POLITECNICO DI MILANO



Politecnico di Milano is one of the most outstanding universities in the world, **ranked 20th in the World, 7th in Europe, and 1st in Italy** according to **QS World University Ranking by Subject 2020 - Engineering & Technology**. Founded in 1863, it is the largest school of Architecture, Design and Engineering in Italy, with 2 main campuses located in Milan, the heart of the fashion and design industries, and 5 campuses located within the Lombardy region, one of the most industrialized areas in Europe.

Many important scientists and architects have studied and taught here including Achille Castiglioni, Gio Ponti, Renzo Piano and Aldo Rossi - both Pritzker Prize winners, in 1990 and 1998, respectively - and Giulio Natta, who won the Nobel Prize for Chemistry in 1963.

Politecnico di Milano is organized into 12 Departments, responsible for planning the research strategies, and four Schools,

responsible for organizing and providing education. Two of these cover the fields of Engineering, one focused on Architecture, Urban Planning and Construction Engineering, and the other devoted to Design.

A strong **internationalization policy** has resulted in several **study programmes taught entirely in English**, attracting an ever-increasing number of talented international students, and forming a diverse community of people from over 100 countries. In the 2018/2019 Academic Year, about 30% of the students enrolled in Master of Science Programmes were international.

Inter and multidisciplinary approaches take place throughout the academic career, in particular at the PhD School and the ASP (Alta Scuola Politecnica), a school for young talents from all over the world, who develop their skills in a team work context to pursue complex innovative projects. **Teaching is closely related to research**, a key commitment that enables us to achieve results in line with high international standards, while creating connections with the business world.

Strategic research is carried out mainly in the fields of energy, transport, planning, management, design, mathematics and natural and applied sciences, ICT, built environment, and cultural heritage. We have more than 250 laboratories, including a Wind Tunnel (unique in the world for its configuration and features), a Crash Test Centre, PoliFAB (the University's lab for micro and nano production) and PoliFactory, a laboratory where new design processes are developed.



POLITECNICO DI MILANO SCHOOL OF MANAGEMENT

The School of Management was established formally in 2003 and it groups together MIP (the Graduate School of Business founded in 1979) and DIG (Department of Management, Economics and Industrial Engineering - Dipartimento di Ingegneria Gestionale), established in 1990, and it groups together all research and education activities in the field of management.

The School of Management has three main features:



An essential focus on the themes of innovation, change and digital strategy to support and guide business



Inescapable attention is placed on the rational, scientific and quantitative approach. Typical of the engineering mindset



Continuous research with an interdisciplinary approach in research and teaching, thanks to our access to the skills and professionalism of the Politecnico di Milano ecosystem

OUR VALUES

The School of Management shares its founding values with its University

INTEGRITY

Faculty members, staff, students and our partners act in full respect of the law, rules and practices. Illegal and unethical behaviour must be rejected under all circumstances.

RESPECT

We expect Faculty members, staff, students and our partners to show full respect for other people's needs, the environment and society. Respect is a prerequisite for valuing and supporting an international environment in which diversities of gender, culture, beliefs, personalities, political ideas and backgrounds positively influence one another.

EXPERTISE

Research and education must both relate strongly to the economy and the corporate world in order to support an effective transfer of knowledge to the community.

ACCREDITATIONS & RANKINGS



Online MBA Ranking 2020
Executive Education Ranking 2020
European Business School Ranking 2019
Master in Management Ranking 2019



Gioia Ferrario

HR Director Italy, Greece & Turkey,
Boston Consulting Group

The experience at Politecnico helped me to develop strong competences both from a technical and from a managerial perspective. It gave me the tools to think strategically and deal with the changes that are taking place in the world.

I think this is very important for the new generations of engineers and it is one of the aspects I always search for when I interview new candidates. I feel this can make the difference in the current competitive context.

DEGREE IN MANAGEMENT ENGINEERING

The modern world has seen the development of complex systems, with a **strong interaction between technical, economic, and organisational aspects**, fostering the need for a new professional figure that stays at the intersection of these aspects and manages them in an innovative way. This role has been increasingly adopted by engineers who enriched their abilities with strong managerial competences, leading to the rise of a new breed of professionals: the **manager-engineers**.

Blending strong scientific knowledge and approach with deep managerial competence, Politecnico di Milano has been able to create a formal degree course to train this **emerging professional figure** that has evolved naturally throughout the industrialised world.

The Management Engineering Programme is structured in three-year bachelor's degree and a two-year Master of Science degree.

Management Engineers work in all types of industries and sectors and cover a wide-reaching range of activities, such as designing and managing production and logistics systems, strategic planning, business organisation and management, economics, planning and managing technology and innovation, internationalization processes, management control systems, corporate and market finance, economics and management of companies in regulated sectors and network services, large-scale project planning and management, internet applications and ICT management.



BACHELOR OF SCIENCE IN MANAGEMENT ENGINEERING

A SCIENTIFIC AND ENGINEERING BACKGROUND INTEGRATED WITH A WIDE KNOWLEDGE OF ECONOMICS AND MANAGEMENT

The **Bachelor of Science in Management Engineering** produces a professional figure with a solid background. The first year has a strong component of scientific disciplines and introduces some engineering and economic disciplines.

In the second year, modelling skills are studied in detail, digital engineering skills are provided and the business structure and its operational activities are analysed. In the third year, students can study an engineering discipline of their choice more in depth and deal with management, organizational and industrial dynamics, with special emphasis on data analysis. Moreover, an overview on the macroeconomic context is provided.

The educational programme ends with an internship in a company or a laboratory project, which allows students to apply the models and methods learned during the course to real contexts.

Subject to an evaluation of their curriculum, graduates in Management Engineering can continue their studies in the Master of Science in Management Engineering. Graduates may also choose other Master of Science programmes or 1st level Specialising Masters programmes.

ASSESSMENT CENTER

Third-year students have the possibility to assess their behavioural skills in the Assessment Center, managed by Politecnico di Milano Career Service and run by professional assessors.

By performing activities such as working groups on case studies and individual interviews, each student has the opportunity to learn more about his/her strengths and areas for improvement, such as decision making, problem solving, communication and leadership skills, and receive individual feedback.



Bachelor of Science in Management Engineering



KEY FACTS



FORMAT
3 years - full time



SELECTION PROCEDURE
by admission test with a limit
on the maximum number of
students



LANGUAGE
Italian



INTAKE
Yearly - September



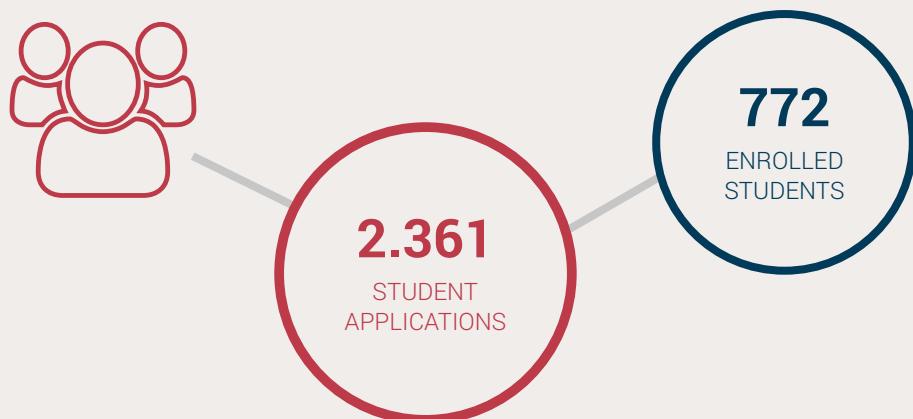
ECTS
180



**FOR FURTHER
INFORMATION**
[www.som.polimi.it/en/
course/bachelor/](http://www.som.polimi.it/en/course/bachelor/)

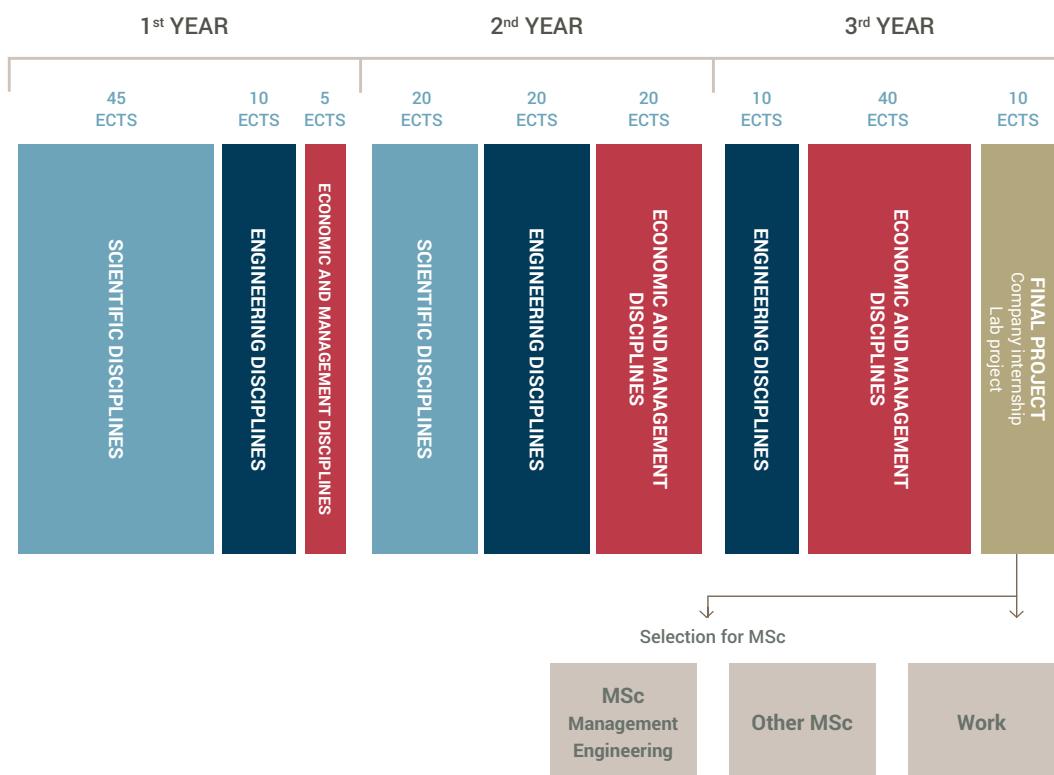
SELECTION PROCESS

(average data related to the last three years, from 2017/18 to 2019/20)





BACHELOR STRUCTURE



MASTER OF SCIENCE IN MANAGEMENT ENGINEERING

HIGH-LEVEL MANAGEMENT SKILLS INTEGRATED WITH TECHNICAL COMPETENCES TO DEAL WITH COMPLEX AND INNOVATIVE SYSTEMS

The **Master of Science in Management Engineering** trains engineering professionals that are ready to meet today's business challenges with innovative solutions. This programme offers the opportunity to really integrate **high-level management skills** with in-depth **technical competences**, to enable students to deal with complex systems in many different areas (for example, production, logistics, supply chain management, accounting, finance, economics, innovation, internationalization, and technology management).



FORMAT
2 years - Full-time



APPLICATION DEADLINE

Every year different calls for applications are opened for prospective students willing to apply to the Politecnico di Milano Master of Science programmes. Calls for applications may differ according to the semester of interest or to the student's nationality:

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



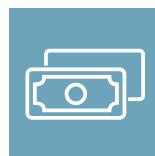
LANGUAGE
English



INTAKE
Twice a year (September - February)



ECTS
120



FEES
For EU students, fees are based on family income and on the study plan presented.



SELECTION PROCEDURE
Students will be selected based on their previous academic curriculum



FOR FURTHER INFORMATION
www.som.polimi.it/en/course/master-of-science/

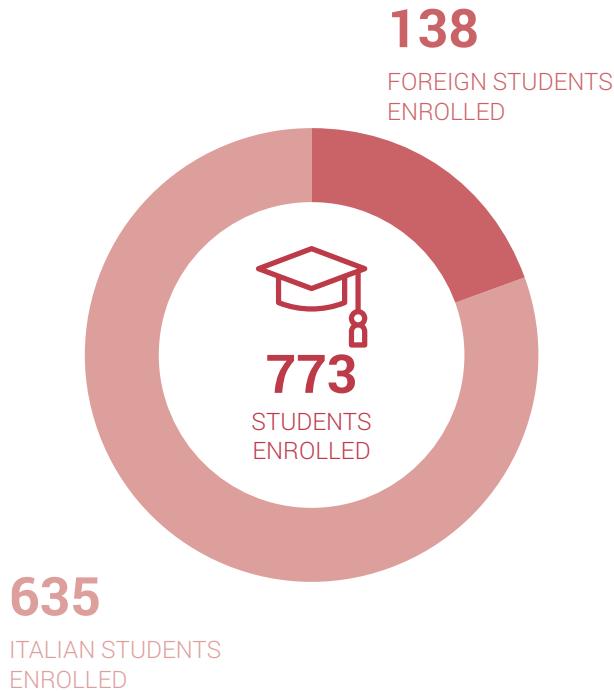
Management Engineering is inherently multidisciplinary and students attending this programme have the opportunity of choosing from broad range of courses, based on different teaching methods ranging from theoretical lectures, practical sessions, case studies, project works, and laboratories. A vital part of the learning experience consists in the involvement of students in real projects with corporations, SMEs, public bodies or non-profit organisations, where they can apply the skills, methods, and knowledge acquired through the courses.

The Master's Degree is held at the **Milan** campus.

SELECTION PROCESS

(average data related to the last three years, from 2017/18 to 2019/20)

2.022 STUDENT APPLICATIONS



Maria Alejandra De la Cruz Ospino

Industrial Engineer, Pirelli Tyre S.p.A.

When I decided to study at Politecnico di Milano my main motivation was learning the best practices of a World-Class country in manufacturing and of one of the best technical universities in Europe. Today, two years after my graduation, I am proud and satisfied of being a Polimi Alumna, since it taught me how to think strategically when managing any process within the company.

It was the perfect complement to my bachelor studies and it opened the doors for me to working for Pirelli, one of the world's leading tyre manufacturers.



The Master of Science in Management Engineering is a **two-year programme** comprising a total of 120 ECTS. The first year provides a common knowledge basis that constitutes the foundation of the Master of Science programme.

The second year is articulated into **nine tracks** dealing with different specialized disciplines. Furthermore, some elective courses are available to give students the possibility of receiving a customised, multidisciplinary education.

At the end of each track, students have the opportunity to engage in special projects (**practice-based labs**) developed in collaboration with different companies which simulate the working environment and allow them to tackle real challenges.



MASTER STRUCTURE

1 st YEAR			2 nd YEAR SPECIALIZATION TRACKS	
30 ECTS	30 ECTS	10 ECTS	35 ECTS	15 ECTS
LEADERSHIP AND INNOVATION	STRATEGY & MARKETING	ACCOUNTING FINANCE & CONTROL	INDUSTRY 4.0 INDUSTRIAL MANAGEMENT SUSTAINABLE OPERATIONS AND SOCIAL INNOVATION SUPPLY CHAIN MANAGEMENT ENERGY & ENVIRONMENTAL MANAGEMENT DESIGN MANAGEMENT, INNOVATION AND ENTREPRENEURSHIP DIGITAL BUSINESS AND MARKET INNOVATION INTERNATIONAL BUSINESS FINANCE	MASTER THESIS
3 OUT OF 4 Quality Data Analysis Operations Management Logistics Management Industrial Technology	BUSINESS AND INDUSTRIAL ECONOMICS + 2 OUT OF 4 Quality Data Analysis Operations Management Logistics Management Industrial Technology	Selection of elective courses for a multidisciplinary and customized programme		
	BUSINESS AND INDUSTRIAL ECONOMICS + 2 OUT OF 3 Operations Management Logistics Management Industrial Technology			

MENTORSHIP PROGRAMME

The objective of the Mentorship Programme is to offer to a few selected Master of Science students a very high added-value experience by participating in some activities that will foster their professional and personal development and their academic career. The Programme is for students **enrolled in the second year of the MSc.**

The offer is based on four key pillars:

④ **1. Meeting Managers:**

Networking meetings with outstanding managers in the industrial context and some faculty members, focused on critical relevant topics not necessarily covered within the core courses.

④ **2. Senior Mentorship:**

Every selected student will be assigned a senior alumnus/a with a relevant working experience in order to be guided in professional choices after graduation according to her/his personal aspirations.

④ **3. Civic Responsibility:**

A constructive dialogue with some political institutions (or similar entities) in order to let students understand that they have a relevant and positive impact on society far beyond their professional career.

④ **4. Active Learning:**

Direct involvement in education support/tutoring activities at the Bachelor level, having thus the opportunity to further consolidate their knowledge and try to act as tutors/mentors.



MOOCs

Online courses

POK (Polimi Open Knowledge) is the **MOOCs** portal (Massive Online Open Courses) providing online courses, free and open to everybody.

The main objective of the portal is to support the students, not only from Politecnico di Milano, in crucial stages of their educational and professional career: from high school to university, from bachelor's to master's degree, and from university to the workplace.

Courses are open to everybody: it is sufficient to register on the portal to access videos, content, activities and self-assessment tests.

Several MOOCs are **designed specifically for Management Engineering students**, both at the Bachelor and the Master of Science levels, and are available in English and Italian. Some of these include Fundamentals (Organization, Economics, Operations, Strategy, Financial and Management Accounting) from the series **Introduction to Management Engineering**, designed to introduce prospective master students and people interested in managerial disciplines to the key fundamentals of Management Engineering. Other courses are dedicated to Methodology (Survey Research, Case Study), etc.

The technology platform is a customization of **Open-EDX**, the open source platform released by EDX - the initiative resulting from a joint venture between MIT and Harvard.

Discover active MOOCs at: www.pok.polimi.it



INTERNAL DOUBLE DEGREES

The Internal Double Degrees are joint programmes designed in collaboration with other Study Programmes of Politecnico di Milano with the aim of providing further skills, related to other subjects, to the management engineer, in order to develop new professional profiles able to meet the challenges and new opportunities in some specific sectors.

SOME EXAMPLES OF THESE DOUBLE DEGREES ARE:

Double Degree in Management Engineering and Product-Service System Design

The Double Degree in Management Engineering and Product-Service System Design aims at developing a new professional figure that is highly specialized in the fields of design and management, strategy development and innovative business models. Students that undertake this double degree programme will develop competences that go beyond product design to embrace the entire product-service-communication chain, with a special focus on services and complex systems of values for people and for businesses, joining the capability to conceive and visualize business models and to create value and lead the innovation process.

Double Degree in Built Environment and Management Engineering

The Double Degree in Built Environment and Management Engineering aims to meet the new challenges related to the building sector, at national and international levels, by developing new professional profiles that put together the typical skills of management engineering with those of built management.

Double Degree in Energy and Management Engineering

The Double Degree in Energy and Management Engineering aims to develop new highly specialized professionals in the field of energy and management in order to face the continuous global demand for energy due to current economic growth.

To support and speed up this change in the energy sector, a new generation of industrial engineers and managers is needed. New professional profiles must be able to transform the potentials of new technologies into consolidated industrial processes where knowledge and technical and managerial skills are perfectly mixed together and, therefore, professionals are well equipped to face some of the most relevant challenges.

In this context, students who decide to undertake this Double Degree Programme will have the opportunity to develop in an integrated way the typical skills of Management, Economics and Industrial Engineering with those that specifically concern the Energy Engineer.

The updated list of programmes that start each year and related information are available at
www.som.polimi.it/en/course/master-of-science/#studywithus

STUDENTS & ALUMNI EXPERIENCES





Luigi Binelli
Operations Director,
Pikdare



Fabio Dinale
Vice President Renewable Gas,
Hitachi Zosen Inova



Sergio Solero
President & Chief
Executive Officer,
BMW Italia



Roberta Regis
Global IT Director
Sales & Customer,
Gruppo Campari



Paola Scarpa
Client Solutions,
Data & Insight,
Google



Tiziana Olivieri
Industry Sales Director
Western Europe,
Microsoft Italia



Alessandra Brambilla
Worldwide Commercial
Solutions - EMEA Lead,
Microsoft



Simona Pasero
Head of Human Resources
& Organization,
Generali Investments



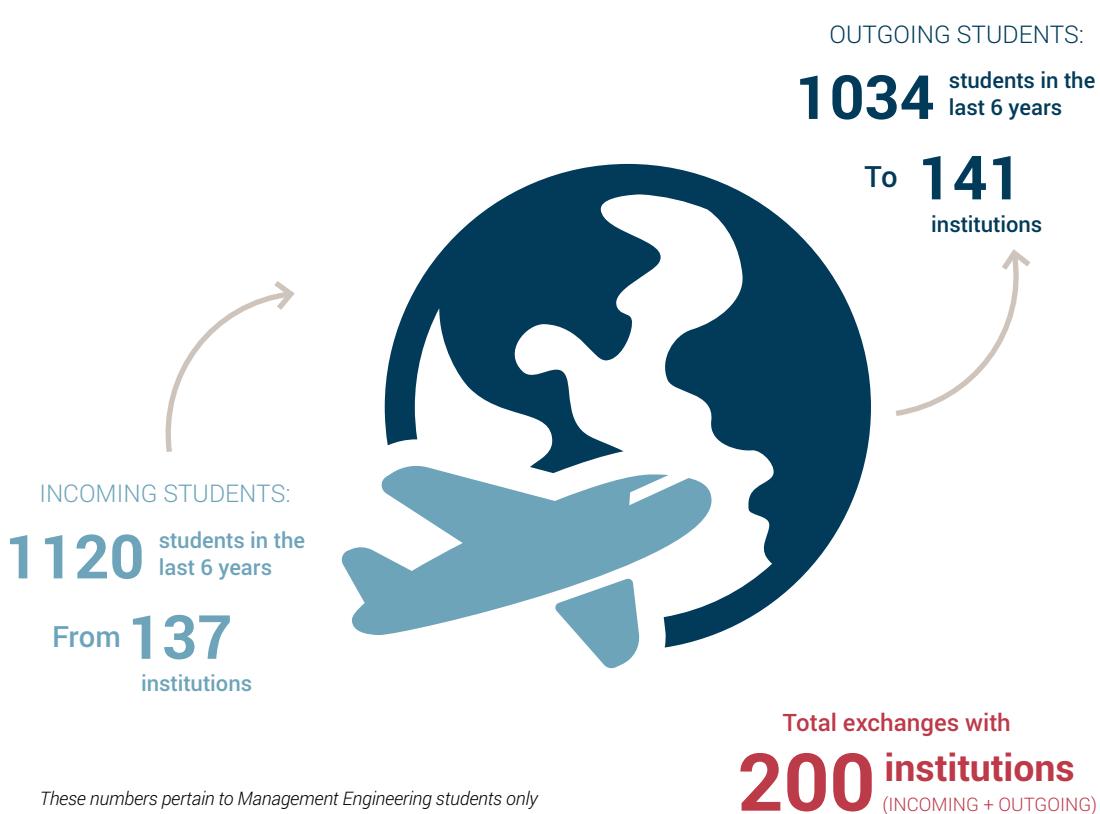
Davide Di Domenico
Partner and Managing Director,
BCG

INTERNATIONALIZATION

A network
of over
200
partners

The Management Engineering Degrees at Politecnico di Milano offer many possibilities for international exchange and mobility experiences: the classic Erasmus programme, Double Degrees in collaboration with prestigious foreign universities, and special programmes with different durations, ranging from a few days to one year.

Exchanges with over 180 international institutions on all continents are available to students. Every year over 200 Management Engineering students go abroad, while we greet the same number of incoming exchange students on our campuses.



INTERNATIONAL PROJECTS



ALLIANCE4TECH

Alliance4Tech consists of four Top Engineering Institutions of different European cultures, located in global cities in the economic heart of Europe, forming a European Campus without borders for their students and faculties.



The Alliance4Tech Partner Universities (Politecnico di Milano, TU Berlin, University College London, CentraleSupélec Paris) will enhance and develop the following initiatives for their prospective and respective students:

- > **Free-mobility/Full flexibility** to switch from one city to another every semester, if there is former official approval of both the home and host Institutions
- > **Practical activities** and new pedagogical approaches
- > **Internship** opportunities in companies
- > **Seasonal Schools** in scientific fields and/or soft skills and employability and/or any fields of common interest
- > A multicultural and geographically **diverse environment** with students coming from within Europe and outside Europe alike

For more information www.alliance4tech.eu



IDEA LEAGUE

The **IDEA League** is a focused network of leading European Universities of science and technology. Its members are TU Delft, RWTH Aachen, ETH Zurich, Chalmers University and Politecnico di Milano.

IDEA League

A focused network of leading European universities of science and technology

The IDEA League organizes Summer Schools, Doctoral Schools and tracks for highly talented students.

Within the IDEA League network students, researchers and supporting staff collaborate to improve education, research and quality assurance.

For more information www.idealeague.org

QTEM

QTEM Quantitative Techniques for Economics and Management is a prestigious international network that matches the best students with analytical and quantitative skills and a qualified network of academic and corporate partners.

Selected students can benefit from a tremendous chance of growth, enriching their cultural and academic background and taking the first step in the creation of a worldwide network.

QTEM Students are awarded a master's degree at their home university along with the QTEM degree.



For more information www.qtem.org

INTERNATIONAL DOUBLE DEGREES

Together with a selected number of partner universities, Politecnico di Milano offers international Double Degree Programmes, some of which have a specific curriculum in Management Engineering. The Double Degree Programmes provide an important international experience and allow students to earn, in just two and a half years, a double degree, both from the Politecnico and from the partner University.

A significant amount of work must be carried out on the final thesis, which includes an Internship. This allows them to consolidate the acquired skills and facilitates the start of a career.

Audencia Nantes School of Management

Audencia Nantes School of Management is among the top universities in Europe and offers programmes that are regularly listed in the most well-known international rankings (such as The Financial Times, The Economist). The School has obtained many prestigious accreditations, such as EQUIS, AACSB, AMBA. The Double Degree Programme offers the opportunity to improve specific skills in marketing, consulting, finance and entrepreneurship at Audencia, together with the technological and innovation background of Politecnico di Milano.



Solvay Brussels School of Economics and Management

The Solvay Brussels School of Economics and Management (SBS-EM) is the Business School of the Université Libre de Bruxelles, a large multi-cultural university located in the metropolitan area of Brussels and close to the headquarters of the social and political institutions of the European Union. SBS-EM offers high quality education at the undergraduate, postgraduate and executive levels; this is reflected also by international university rankings and accreditations (EQUIS, AMBA).



Tsinghua University



Tsinghua University (Beijing) is one of the best universities in China for quality of education, research and service to society. Over the years, it has obtained the highest number of professors, at the national level, who have received awards in academic and scientific fields. Tsinghua University is also considered one of the best universities worldwide. The MSc Double Degree in Management Engineering aims at putting together the exclusive educational resources of each of the two universities, by training a top-level graduate profile, with a degree from both universities, through a strong preparation in the fields of global industrial production and management engineering.



清华大学
Tsinghua University

Tongji University



Tongji University (Shanghai) is one of the oldest and most prestigious institutes of higher education in China. As of today, the university includes different fields of study and it attracts many students, from China and from all over the world.

The university has also developed a strong connection with the industries, which allows it to provide students with the opportunity of real interaction with companies. The Double Degree aims at providing students with tools and resources that are necessary to develop skills in industrial and management engineering.



同济经管
TONGJI SEM

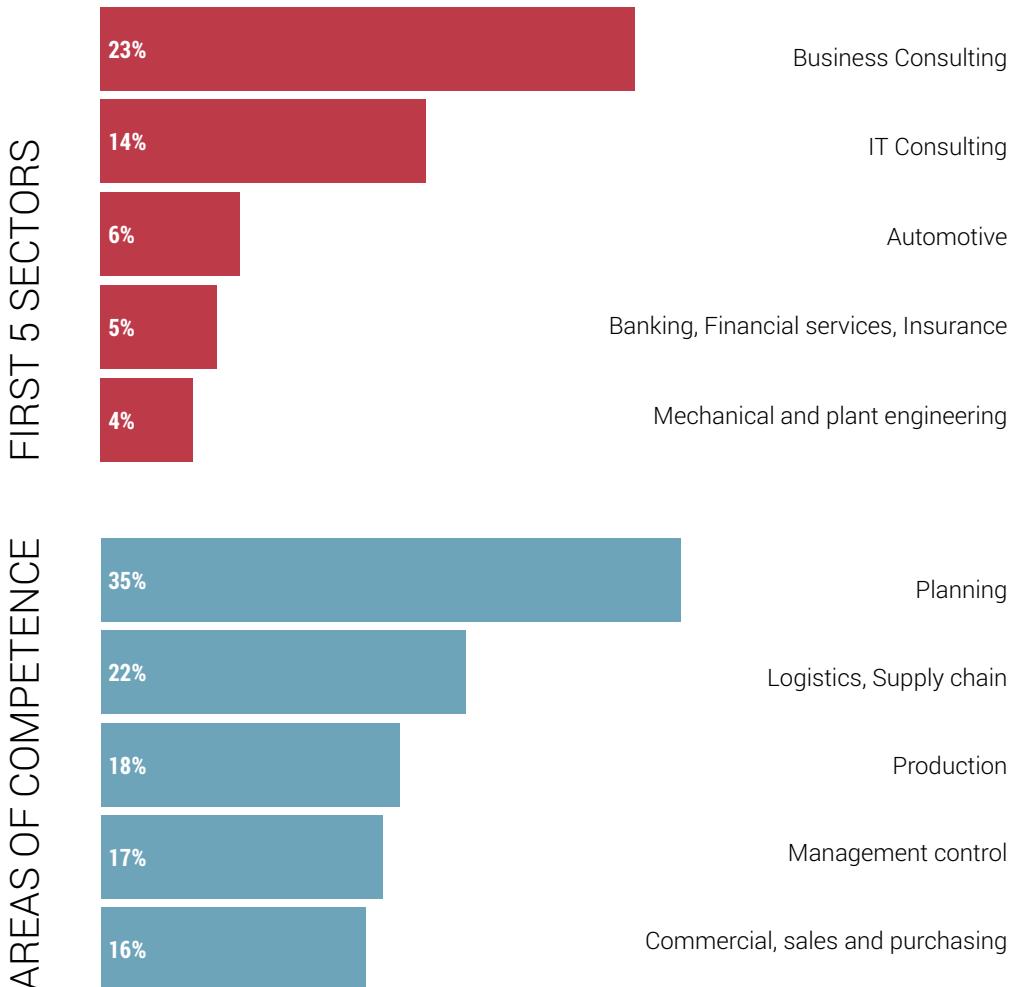
The list of partner universities is available at www.som.polimi.it



PLACEMENT



Emphasizing the warm welcome given by the world of business to this new breed of professionals, graduates from Politecnico di Milano can find employment in several industrial and service companies, in consultancy firms, banks and financial institutions, the public administration and in non-profit organisations.



Source: Career Service Politecnico di Milano, Survey 2019



BACHELOR OF SCIENCE

employed

98%

when

80% 20%

6 months

7-12 months

Source: Career Service Politecnico di Milano Survey 2019 - bachelor's degree. The survey is addressed to bachelor's degree graduates, a year from their graduation date.

MASTER OF SCIENCE

employed

98%

when

85% 15%

6 months

7-12 months

Source: Career Service Politecnico di Milano Survey 2019 - master's degree. The survey is addressed to Msc Degree graduates, a year from their graduation date.

CONTACTS



ACADEMIC PROGRAMME OFFICE
didattica-ges@polimi.it
management-engineering@polimi.it

www.som.polimi.it
www.poliorientami.polimi.it

HOW TO REACH OUR CAMPUS:

FROM CENTRALE FS METRO STATION

Take the M2 green underground (towards Assago Milanofiori Forum/Abbiategrasso), get off at Garibaldi Station (second stop), take the underground urban train (passante) S1 line (towards Saronno) or S2 line (towards Meda-Mariano Comense) or S13 line (towards Bovisa) and get off at the Milano Bovisa Politecnico station (second stop).

Estimated journey time: 15 minutes.

FROM CADORNA FNM METRO STOP

Take the S3 line (towards Saronno) or S4 line (towards Camnago Lentate) or R22 line (towards Varese) and get off at the Milano Bovisa Politecnico station (second stop).

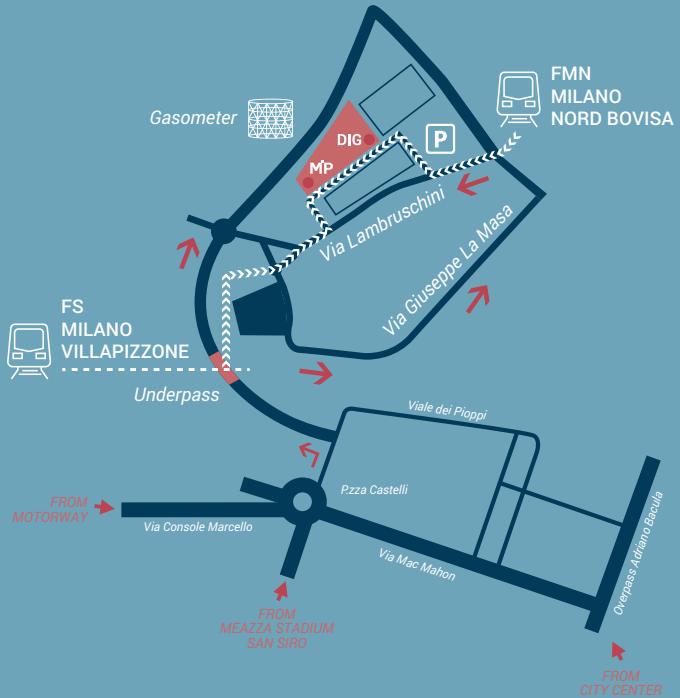
Estimated journey time: 8 minutes.

FROM DUOMO METRO STOP

Take the M1 red underground (towards Rho Fiera-Bisceglie), get off at Cadorna station (third stop), go into the train station and take the S3 line (towards Saronno) or S4 line (towards Camnago Lentate) or R22 line (towards Varese) and get off at the Milano Bovisa Politecnico station (second stop).

Estimated journey time: 15 minutes.

Alternative route: Take the M1 red underground (towards Sesto FS), get



off at Porta Venezia Station (third stop), take the underground urban train (passante) S1 line (towards Saronno) or S2 line (towards Meda-Mariano Comense) or S13 line (towards Bovisa) and get off at the Milano Bovisa Politecnico station (second stop).

Estimated journey time: 25 minutes.



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