

### **MASTER OF SCIENCE**







## INDEX

Politecnico di Milano	4
The Degree in Management Engineering	Ę
Master of Science in Management Engineering	(
Internal Double Degrees	ć
Internationalisation	10
International Dual Degrees	1
Placement	13

### POLITECNICO DI MILANO



The Politecnico di Milano is one of the most outstanding universities in Europe. For the first time, it is ranked among the top 100 universities in the world in 10 research areas included in the **QS Ranking by Subject 2015**: Art & Design Art; Civil & Structural Engineering; Architecture and Built Environment; Computer Science & Information Systems; Electrical & Electronic Engineering; Mechanical, Aerospace and Manufacturing Engineering; Chemical Engineering; Physics & Astronomy; Mathematics; Materials Sciences; Business & Management Studies.

Thanks to these results, according to the QS World University Ranking - **Engineering & Technology 2015**, Politecnico is ranked 24<sup>th</sup> in the World, 7<sup>th</sup> in Europe and 1<sup>st</sup> in Italy among technical universities. Founded in 1863, it is the largest school of architecture, design and engineering in Italy, with three main campuses located in Milan, the heart of fashion and design industries and venue of

scientists and architects studied and taught engineering and 3 schools for the fields of architecture and industrial design. Thanks to a strong **internationalization** policy, many attracting an ever-increasing number of talented international students, which now form a diverse community from more than year 2014/2015, 21,6% of the total students School and the ASP (Alta Scuola Politecnica), 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, cultural heritage, with more than 170 laboratories, among these also a Wind Tunnel and a Crash Test centre.





The modern world has seen the development of complex systems, with a **strong interaction of technical, economic, and organisational aspects**, fostering the need of a new professional figure that stays at the intersection of these aspects and manage them in an innovative way.

This role has been more and more taken up by engineers who enriched their abilities with strong managerial competences, leading the rise of a new breed of professionals: the **manager-engineer**.

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

The Management Engineering course is structured in a three years Bachelor's degree, and a two years Master of Science's degree.

Management Engineers 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, 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, and are working in all type of industries and sectors.

#### 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 manageria perspective. It gave me the instruments 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 where I interview new candidates. I feel this can make the difference in the current competitive context.

# MASTER OF SCIENCE IN MANAGEMENT ENGINEERING

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

The **Master of Science in Management Engineering** aims at training 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, logistic, supply chain management, accounting, finance, economics, innovation, internationalization, technology management).



### **FORMAT** 2 years - full time



#### APPLICATION DEADLINE

Every year different calls for applications are opened for international prospective students wishing to apply to Politeonico di Milano Master of Science programmes.

Calls for applications may differ according to the semester of interest or student nationality: http://www.polinternational.polimi.it/ how-to-apply/laurea-magistrale/when-to-apply



### **LANGUAGE** English



#### INTAKE

twice a year (October - March)



**ECTS** 120



#### FFFS

or EU students, fees are based on students' family income and on the study plan presented, and range from about €800 to €3,300 per year. For Non-EU students fees amount to about €3.300 per year



#### SELECTION PROCEDURE

access to the Master is by selection



#### FOR FURTHER INFORMATION

www.dig.polimi.it/masterofscience

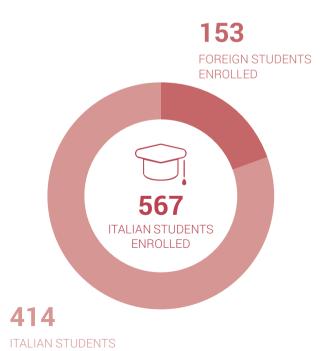
Management Engineering is inherently multidisciplinary and students attending this programme have the opportunity of choosing among a broad range of courses, based on different teaching methods ranging from theoretical lectures, practical sessions, case studies, project works, and laboratories. A vital 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 in Milan campus.

### SELECTION PROCESS

(average number of students in the last two years: 2014-15 and 2015-16)

1.256 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, one year after my graduation, I am proud and satisfied of being a Polimi Alumni, 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 me the doors to work in one of the worldwide leading tyre manufacturer, Pirelli.

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 free choice courses are available to give students the possibility of receiving a multidisciplinary and customised education.

#### MSc IN MANAGEMENT ENGINEERING



#### Matteo Turuani

#### Purchasing Project Manager, Ferrari

I chose Politecnico di Milano and Management Engineering because I think it's a great university and a valid course that gives student a wide range of job opportunities. The course gave me a solid technical background that helped me having a better understanding and management of the tech-related issues of the industry I'm working in.

### INTERNAL DOUBLE DEGREES

The internal double degree is a joint programme with a partner course aimed at developing new professional figures that will be able to complement typical managerial competences of Management Engineering with other disciplines, in order to address the challenges and the opportunities of 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 competencies 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 Management Engineering & Management of Built Environment

The Double Degree in Management Engineering & Management of Built Environment aims at addressing the new challenges that characterize the construction sector in Italy and in Europe. Its objective is to create a new professional figure that integrates the typical skills of management engineers with the key competencies of building engineers, and, vice versa, provides building experts with new management expertise. Students that take up this double degree programme will become aware of the key issues concerning building design, asset management and all the crucial interdependencies and links among design, construction and management.

#### Double Degree in Management Engineering & Mechanical Engineering

The Double Degree in Management Engineering & Mechanical Engineering aims at capturing the emerging needs of the industrial and manufacturing sector in Italy and in Europe. Students that embrace this double degree programme will have the opportunity to develop their competencies in managerial and technological issues concerning product and production processes. Key topics in this programme are indeed product and production process design in relation to different aspects of corporate management, finance, operations management, and supply chain management.

#### **Double Degree in Energy Engineering and Management**

The Double Degree in Energy Engineering and Management aims to develop a new professional figure that is highly specialized in the field of energy and the management to cope with the continuing global demand for energy due to the current economic growth. To support and accelerate this transformation of the energy sector, is required a new generation of industrial engineers and managers, new professional profiles able to transform the potential of new technologies in industrial processes where technical and managerial knowledge and skills are seamlessly blended and thus well-equipped to face some of the most relevant challenges. Students that embrace this Double Degree program will have the opportunity to develop their competencies concerning managerial and featuring energy elements typical of both of the Management and Energy Engineers.

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The list of available programmes and further information are available at www.dig.polimi.it/internaldc

### INTERNATIONALISATION

Politecnico di Milano participates in **several research and training projects** collaborating **with the most qualified European universities**. Today, Politecnico takes part in European and global networks of leading technical universities such as TIME (www.time-association.org), and its international presence is constantly increasing.

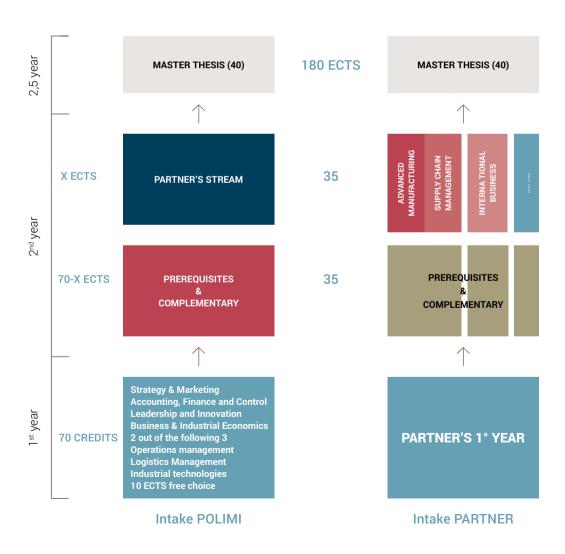
Politecnico di Milano offers its students many **programmes taught in English**, as for the Master of Science and Ph.D. programme. Furthermore, Politecnico gives its students the opportunity to participate in **high quality international projects** based on EU programmes and special agreements with many partner universities, including several exchange and double-degree programmes.

Every year, more than 1200 students from Politecnico di Milano participate in **international mobility programmes** and we have the pleasure of welcoming about the same number of students from our partner institutes. The students selected for any specific programme have the opportunity of enriching their academic experience by spending a period at a partner university, and acquire credits fully recognized by the Politecnico di Milano.



# INTERNATIONAL DUAL DEGREES

Together with a selected number of partner Universities, Politecnico di Milano has developed an international Dual Degree, characterised by a specific Management Engineering curriculum with a strong international experience, and the achievement of both Politecnico di Milano and Partner University degree, in two and a half years, with a significant Master thesis/internship to consolidate the competences, and facilitate the starting of a working career.





Among the partner universities there are, for instance:

#### Audencia Nantes School of Management



Audencia Nantes School of Management is among Europe's top management schools and offers programmes that are regularly featured in the best international rankings (such as those drawn by The Financial Times or The Economist). The School has different prestigious international accreditations such as EQUIS, AACSB, AMBA. The Dual Degree offers the opportunity to exploit Audencia's specific competences in marketing, consulting, finance, and entrepreneurship, complementing Politecnico's technological and innovation background.



#### 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, multicultural university located in the metropolitan area of Brussels, and near the headquarters of the social and political institutions of the European Union. The SBS-EM offers high quality education for undergraduate, graduate and executive students, as testified by the international university rankings and accreditations (AEQS, EQUIS, AMBA).



The list of partner universities is available at www.dig.polimi.it/internationaldd

### **PLACEMENT**

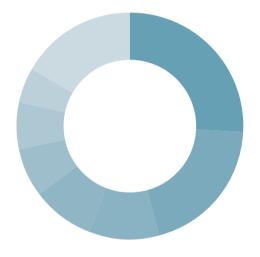
#### **Professional Openings**

Emphasising 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, public administration and in non-profit organisations.



### AREA OF EXPERTISE





Total interviews equal to 80% of total graduates.

39,9% Employed before graduation
70,8% Employed 2 months after the graduation
85.3% Employed 6 months after the graduation
98.1% Employed 12 months after the graduation

## HOW THEY FOUND THEIR FIRST EMPLOYMENT



