

master of science

# cience management engineering

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The international Master of Science in Management Engineering (MME) trains high-level professionals mastering statistical, analytical, and numerical methods and with strong technical-scientific, economic, and organizational skills.

The breadth of topics covered and the level of depth that characterizes the teaching activities, provide graduates with a high technical and cultural preparation that qualifies them to fill multiple roles in large and medium-sized companies, as well as in small companies where they can quickly reach managerial positions.

The educational activities are designed to prepare professionals who can drive change processes such as the manufacturing industry's digital transformation, contribute to the adoption of new cutting-edge manufacturing solutions and systems, and assist in developing new business models. All the mandatory courses are taught in English.

The management engineer trained at the University of Florence has a predominantly industrial orientation but can also work inservice enterprises.



## admission requirements

The student must preliminarily request the enrollment clearance (*nulla osta*). A Commission reviews the request, both for verification of curricular requirements and personal preparation requirements. Access to the course requires possessing level B2 for the English language, which can be demonstrated by a suitable certificate issued by the University Language Center (CLA) or at other internationally accredited institutions.

Curricular requirements for admission to the course consist of possession of an engineering bachelor's degree in

- Information Engineering (L-8 Class)
- Industrial Engineering (L-9 Class)

Admission requires the presence in the career of a minimum number ECTS in selected disciplines. The adequacy of personal preparation is verified by a special Commission through a written and/or oral test. Graduates in engineering management from the University of Florence can be exempt from the interview test if they complete their studies in less than a threshold time and with a grade average above threshold values.

Admission requirements are detailed in the regulations of the degree program.



Contents

The course of study is organized into two curricula. The first called "**Smart Industry**" is based entirely on courses provided at theUniversity of Florence. The second one called "**International**," is based on a structured international mobility agreement signed with HSLU Lucerne and includes at least a semester of study abroad (the first semester of the second year) and allows the award of a double engineering master's degree, the Italian and the Swiss one.

Access to the international curriculum requires participation in a special call for applications.

The two curricula overlap the first year. For both curricula, the mandatory courses are almost all in the areas of operationsmanagement, industrial plant engineering, design and management of production processes and production systems, automation, as well as business economics and organization, innovation, and project management. In the first year, basic knowledge is also enhanced by delving into operations research and statistics for experiments and forecasting.

The second year differentiates the two curricula.

In the Smart Industry curriculum, this includes, in addition to some courses in the above-mentioned areas, a stage/traineeship activity, and the writing of a thesis. The thesis should be based on an industrial project and/or research activity and have characteristics of originality. In the International curriculum, on the other hand, the second year fe-

atures courses to be selected from HSLU Lucerne's course offerings, a specialization project, and a co-tutored thesis activity supervised by two faculty members from each of the two universities.





Professional who takes technical and economic decisions relevant to the setup of production capacity and the efficient management of the production factors.

**Innovation manager**: Professional who supports the innovation processes, of products, processes and business business models.

Service Manager: Professional who conceives, designs, engineers, and/ or streamlines service processes, both in traditionalservice companies and in servitized manufacturing company.

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**Project Manager**: Professional who manages non repetitive activities concerning the realization of a tangible or intangible product, with a finite time horizon, characterized by resource, time, and precedence constraints.

**Operations and Supply Chain Manager**: Professional who analyzes, plans, schedules, and controls production and supply chain following agile and lean production paradigms.

Reliability, Availability, Maintenance and Safety Engineer: Professional with the skills for measuring, assessing, managing, and improving RAMS (Reliability, Availability, Maintainability, and Safety) performance of components, systems, processes, plants and facilities.

## offices and contacts

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