DEGREE COURSES

MANAGEMENT ENGINEERING

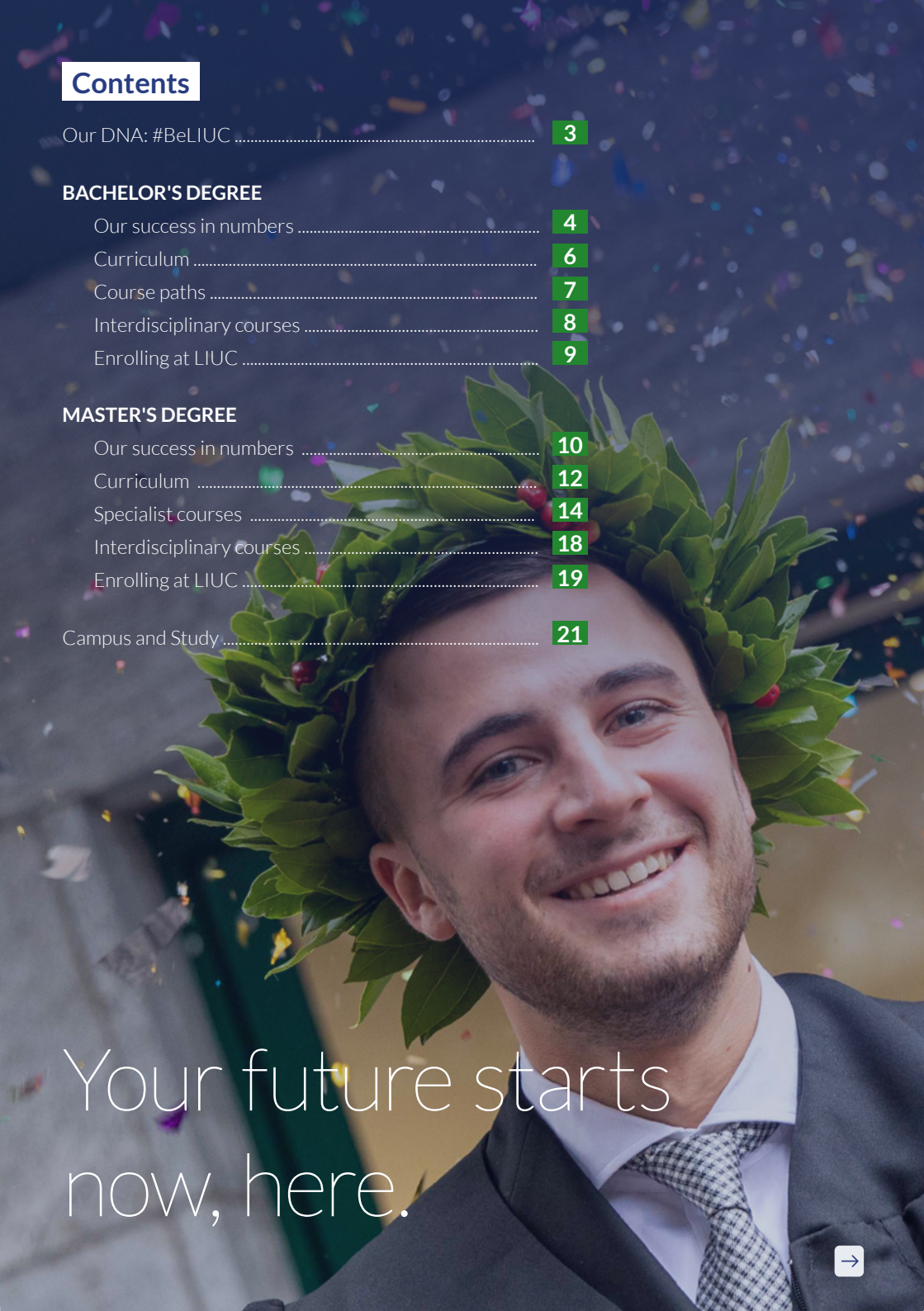
MASTER'S DEGREE

LIUC

Ingegneria Gestionale

With U at the center.

Contents



Your future starts now, here.

Our DNA: #BeLIUC

LIUC - Università Cattaneo

A unique and distinctive business school

LIUC stands out from its competitors thanks to the interrelationships and synergies between the degree courses in Economics, Management Engineering, PhD and Executive Education activities and thanks to its close ties with businesses, the economy and institutions;

People first

LIUC always puts the students first, ensuring attention and care in teaching, services, the campus, opportunities for international comparison and relations with stakeholders;

Ongoing academic growth

LIUC aims for constant academic growth, evidenced in its high standards in teaching, research and third mission activities at national and international level;

Innovation

LIUC constantly invests in innovation in teaching and in various areas of institutional commitment;

Sustainability

LIUC promotes sustainability and the values of inclusion, merit, employability, and equality.

MASTER'S DEGREE

MASTER'S DEGREE: MANAGEMENT ENGINEERING

Our success in numbers

POSTGRADUATE EMPLOYMENT CONDITIONS*

92,6% employment *(1 year after graduation)*

2,1 month entry time into employment

1.828 € average salary one year after graduation

SUCCESS IN STUDIES*

2,3 years
average duration of studies

95,5%
of students complete their studies

EXPERIENCE ABROAD

100% requests for a study period abroad by eligible students are fulfilled

WORK EXPERIENCES

97,6% of the students did an internship in a company

* AlmaLaurea Inter-University Consortium Survey 2024

The LIUC Master's Degree Course in Management Engineering aims to provide graduates with knowledge, skills and tools enabling them to design, manage, coordinate and innovate the operating processes of companies and organisations, integrating technological, economic-financial, information, strategic, organisational and commercial elements.
In particular, the course aims to train master's degree graduates to:

- Design, manage and make technology choices in operations and the supply chain, properly evaluating the technical, economic and financial aspects of technology choices;
- Promote and manage technological innovation and industrial design processes, from idea generation to product and process design and commercialisation;
- manage complex projects and systems and their financial and organisational implications;
- Integrate sustainability assessments into industrial systems decisions;
- Manage the financial aspects of technology and innovation choices.

The degree course has two optional pathways: either the whole **course in Italian**, or **one in English**, which foreign students spending a period at LIUC can join.

Specialisations

In your second year you will have to choose a specialisation according to your areas of interest. For the Italian path:

- **Data Science for Operational Excellence**
- **Design and Management of Digital Transformation**
- **Integrated Management of Companies and Services in Health Care**

For the English path:

- **Manufacturing Strategy**
- **Sustainability and Circular Economy**

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MODES OF ATTENDANCE

The lectures of the master's degree courses can be **attended in person or from home.**

Study plan **Italian Course** - Master's Degree

Applied sciences and technology courses

General engineering courses

CFU = University educational credits

Distinguishing courses of management engineering

Interdisciplinary courses

N.B: *See the website for further details and updates www.liuc.it*


"Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning stays young. The greatest thing in life is to keep your mind young."
Henry Ford

Specialisation courses

The specialisation allows you to experience how the three areas of the technological pillar of the **Industry 4.0 paradigm** 'Data Analytics' (Descriptive Data Analytics, Data Mining, Prescriptive Data Analytics) can be used to manage a factory in the most efficient and effective way.

Objectives

Train management engineers who can analyse data from a factory, turn it into information and then make informed decisions based on that information.

Teaching

This specialist course, delivered in collaboration with companies, takes place in **i-FAB** (a simulated factory designed according to Lean logic and applying the pillars of the **Industry 4.0 paradigm**), at companies that already use data science to manage their factory, and within the University's computer labs. Students will acquire descriptive and prescriptive data analytics and data mining skills working on R (the most widely used programming language for data science), Microsoft Power BI and ARENA simulation software (which give our students the opportunity to participate in the worldwide ARENA Simulation Competition every year).

This **specialisation** consists of three subjects:

- Descriptive Analytics for Operational excellence
- Data Mining for Operational Excellence
- Prescriptive Analytics for Operational Excellence

Employment opportunities

Graduates will be able to take on roles within the Continuous Improvement and Digital Transformation teams of Operations and, later, those of **chief digital officer** and plant manager. They will also be able carry out consulting work in the area of operations.

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Starting from traditional management paradigms, this specialisation enables the development of the interdisciplinary skills needed by companies for the correct **use of digital technologies**.

Objectives

To train management engineers capable of designing and implementing new technology enabled business models for consulting, production and service companies. To prepare engineers to join digital **innovation teams**.

Teaching

The course consists of three modules:

- Principles and Models of Digital Transformation (learning about design methods of 'as-a-service' organisations including Design Thinking);
- Transformation of Business Processes (understanding how business processes are changing under the influence of Big Data, the Internet of Things and AI);
- Digital Transformation Projects: Methods and Cases (learning how the consultancy approach enables the management of digital transformation, including through classroom discussion of numerous company testimonials).

Employment opportunities

Graduates will be able to integrate effectively - as digital project managers or digital transformation experts - into teams dedicated to digital innovation projects, both in manufacturing and service companies, as well as in all major consulting firms.

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INTEGRATED MANAGEMENT OF COMPANIES AND SERVICES IN HEALTHCARE

This specialisation, almost unique in Italy, is designed for those who wish to work in public and private facilities in the **health, pharmaceutical and medical sector**. All students are offered internships in public and private healthcare companies and manufacturing companies in the healthcare industry.

Objectives

To train management engineers who can **evaluate health care technologies**, with a multidisciplinary approach, and **improve the performance** of health care companies, both hospitals and pharmaceutical and biomedical companies, through timely management of new technologies and optimisation of resources and processes.

Employment opportunities

Graduates will be able to work in both hospital and manufacturing companies (pharmaceuticals, medical devices, biomedical etc.) as well as in regulatory institutes at regional level and in consultancy companies. In particular, they will be focused on the operational management of hospitals and market access health economics of manufacturing companies, in addition to the typical areas of engineering management in this sector (logistics, production, etc.). LIUC is also the headquarters of IN.GE.SAN, the association of management engineers working in the public and private healthcare sector.

Teaching

The course consists of **three modules**:

- Operating Models of Health Systems
- Management Tools for Health and Pharmaceutical Companies
- Technology Assessment and Data Science in Healthcare

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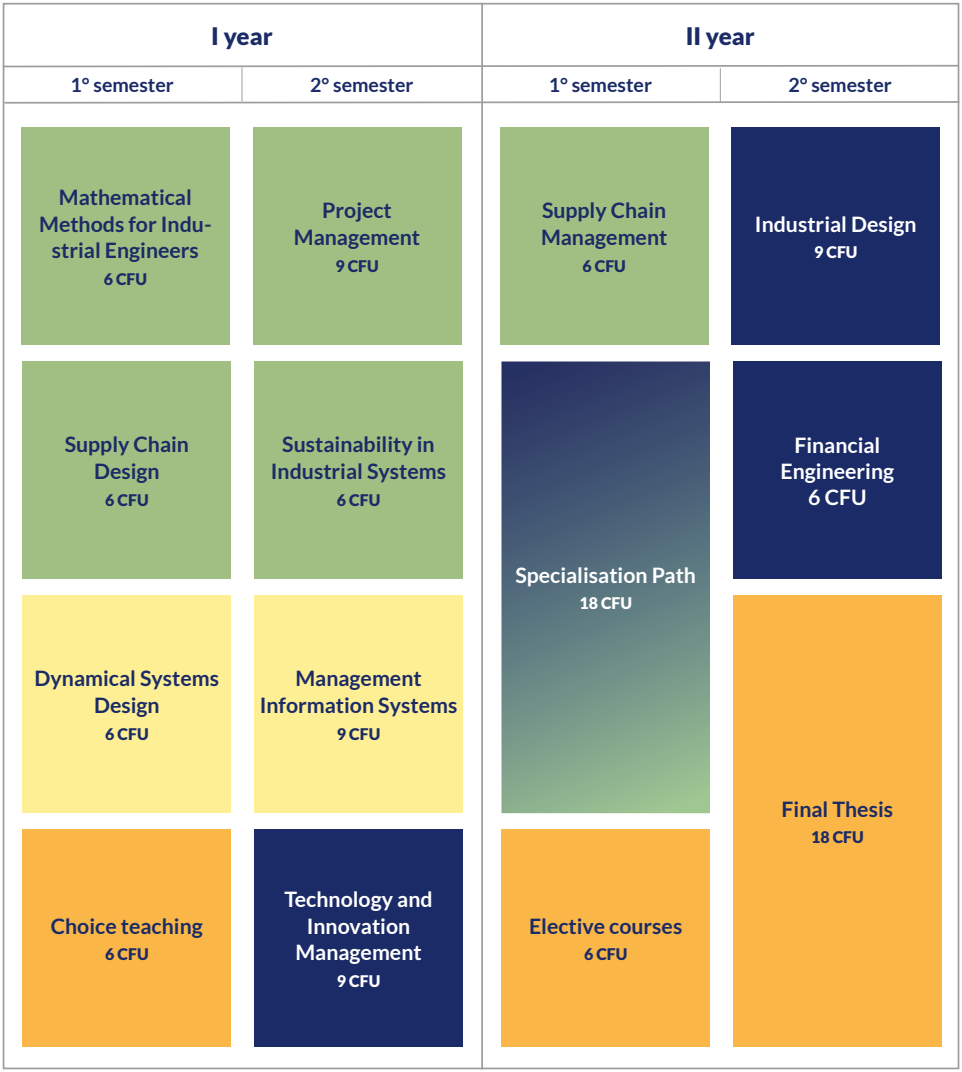
Study plan **English Course** - Master's Degree



Industrial plant engineering area disciplines

Economic and management or industrial plant engineering area disciplines

Cross-disciplines

Economic and management

Management area and IT

N.B: *See the website for further details and updates www.liuc.it*

MANUFACTURING STRATEGY

This specialisation, with a curriculum taught entirely in English from the first to the second year, is an opportunity to get close to the prevailing manufacturing strategies (lean management and industry 4.0), extending the concept of lean beyond its classic manufacturing application, and to experience the world of the smart factory, both from the point of view of technological tools and of their impact on business processes.

Objectives

To train management engineers capable of introducing predominant industrial strategies into enterprises with the support of engineering tools and to deal with the management of logistic-production processes in enterprises where such strategies are already being applied.

Employment opportunities

Graduates will be able to fill roles within continuous improvement and digital transformation teams in operations and carry out consultancy work, especially with regard to lean and industry 4.0.

Double degree

After having been selected through a call for applications and having successfully attended the first year at LIUC and the second year at the Management Centre Innsbruck (MCI), students obtain both a LIUC Master's degree in Management Engineering, specialising in Manufacturing Strategy, and a Master of Sciences degree in 'Management Engineering and Management' at the MCI.

Teaching

Most of the course takes place within the i-FAB, a simulated factory designed according to lean logic and applying the pillars of the Industry 4.0 paradigm (Internet of Things, collaborative robots, data analytics, simulation, virtual reality and additive manufacturing).

The course is composed of three modules:

- Smart factory
- Lean management
- Systems engineering

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SUSTAINABILITY AND THE CIRCULAR ECONOMY

A real opportunity to approach the principles of sustainability and circular economy strategies, extending the concept of sustainable development traditionally conceived in linear economies to more circular economies, where materials and resources never become waste - as they are kept in circulation through practices such as maintenance, reuse, reconditioning and redesign - and natural regeneration. The topics will be addressed from the perspective of business models, business processes and technological and digital innovation.

Objectives

To train management engineers to introduce sustainability principles and circularity strategies in enterprises with the support of engineering tools and to address resource scarcity management, process redesign and product servitization in business organisations.

Employment opportunities

Graduates will be able to fill corporate roles at both strategic and operational levels, having acquired solid skills and knowledge in the subject areas of sustainability and the circular economy. The aim of the course is to train graduates capable of holding the roles of Sustainability Manager, Circular Economy Manager, Process/Product Designer, or serving as consultants supporting corporate strategy and operations.

Teaching

This specialisation consists of three subjects:

- Sustainability, ESG principles, and the circular economy
- Methods, tools, and measurement of sustainability and circular economy practices
- Sustainability and circular economy transition lab

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Interdisciplinary Courses

From the first year, you can customise your study plan by choosing subjects and activities within the following **interdisciplinary courses**:

- **Sustainability (SOS),** devoted to sustainable, environmental and social development issues and their bearing on a management engineer's decisions;
- **Science, Technology and Society (STS)**, dedicated to bridging the divide between humanistic and scientific cultures by promoting interdisciplinary integration, civic engagement and critical thinking;
- **Professional and personal skills development (PRO)**, dedicated to the development of cognitive and meta-cognitive and social skills.

FINTECH ORIENTATION

Orientation project focusing on the topic of the changing financial market in the light of digital technologies and the resulting effects on corporate finance. The orientation stems from close cooperation with leading Italian banks and exponents of new technology finance.

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Enrolling at LIUC

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ADMISSIONS

Admission to the Master's Degree courses requires a Bachelor's Degree or a suitable degree obtained abroad.

Students who are completing a Bachelor's Degree may also apply for a career evaluation, and subsequently enrolment, provided they have passed examinations for a minimum of 140 CFU.

Enrolment is only finalised once the bachelor's degree has been obtained by the deadline set by LIUC.

* For admissions from a bachelor's degree not in management engineering see www.liuc.it

BURSARIES

Various support measures are envisaged: bursaries based on income and merit (with an I.S.E.E. certificate); scholarships based on merit alone; accommodation and canteen contributions awarded to students eligible for the Lombardy Region fund; internship contributions from Varese Chamber of Commerce funds or private funds. It is possible to obtain total exemption from paying university fees by applying for the competition for regional funding. The requirements for applying for a bursary are available in the notices published on the website.

For information contact: *dirstud@liuc.it*

Scholarships e Economic benefits

Discover more

N.B: *See the website for further details and updates www.liuc.it*


“Never consider study as a duty, but as an enviable opportunity.”
Albert Einstein

Campus and Study

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STUDYING ABROAD

Internationalisation is one of the central aspects of LIUC's mission and activities. Thanks to **partnerships with 153 universities in 44 European and non-European countries**, all students can enjoy an international mobility experience (Erasmus, Exchange, Double Degree), representing added value for their professional and personal training. LIUC is an examination centre for the TOEFL and Cambridge Language Certificates.

CAREER SERVICE

Classroom training is complemented with the possibility of internships facilitated by the Career Service. Thanks to its relationships with 6,500 companies, the Career Service contributes to a quick and satisfying job placement, with **employment times of around two months after graduation**. From experiential activities to the personal career advisor, from simulated job interviews to internships, in Italy or abroad, and the Career Opportunity Day, contact with the world of work is a pillar of LIUC.

UNIVERSITY RESIDENCE

The Carlo Pomini University Residence is the ideal place to live the LIUC experience in the heart of the University. Away from the chaos and just a stone's throw from Milan. It has **250 rooms** (single and double), offers numerous recreational and social opportunities and allows Italian and international students to enjoy all the comforts of a structure designed on the model of a traditional Anglo-Saxon campus.

LIBRARY

The Mario Rostoni Library plays an active role in **supporting research and teaching** and in promoting the cultural growth of the university community and the region. Through numerous courses, the library offers students the opportunity to learn how to carry out research and make effective use of the available documentation.

TUTORING

Highly appreciated by students, tutoring is a **support** that involves individual or group meetings to clarify key concepts and refine study method.

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I-FAB LABORATORY

LIUC's i-FAB is a **1.1-scale simulated factory** designed according to "lean production" logic and applying the pillars of the industry 4.0 paradigm (Internet of Things, mobile and collaborative robots, data analytics, simulation, virtual reality and additive manufacturing). Through i-FAB, LIUC students can learn how to apply new concepts of industrial production to improve a company's operational performance.

DEBATE, critical thinking

Useful for developing the critical, argumentative and communicative skills that are fundamental for dealing with complex organisational contexts such as companies, debate is a didactic interaction between several people on a given topic, the reasons for argumentation must be supported through speaking skills and robust documentation.

LIUC Sport

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C.LAB
POWERED BY ComoNExT

C.LAB by ComoNExT – Innovation Hub with LIUC - Università Cattaneo

This meeting place between universities and businesses is a project and a physical space. It is aimed at students in order to stimulate, collect, evaluate and select innovative ideas with an entrepreneurial vocation to be developed through a mentoring process with ComoNExT, an incubator certified by the Ministry of Economic Development.

WORKSHOPS WITH COMPANIES

Initiatives co-designed and co-managed by university and companies on topics that are an integral part of the curriculum. Classroom hours alternate with experiential activities in LIUC laboratories (computer or i-FAB) and in companies, working in groups on projects proposed by the companies.

LANGUAGE CENTRE

The centre coordinates and promotes training in foreign languages which are increasingly indispensable for operating in the world on both a personal and professional level.

The teachers are native speakers (French, English, Spanish and German). LIUC is an examination venue for some of the major accredited certifications.

INCLUSION AND WELL-BEING

The Counselling and Well-Being Department is an innovation that aims to help students acquire market responsive skills, looking at 'knowing how to be' and not just 'knowing how to do'.

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LIUC Alumni

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LIUC
Business University

032024

CONTATTI

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