



**Università
degli Studi
di Palermo**



**dipartimento
di ingegneria
unipa**

**Ingegneria
Palermo Gestionale**

MSc Degree in Management Engineering **General Regulation**

Approved by the CICS – October 27, 2023

The present document is written in accordance with the General Academic Regulations of the University of Palermo ("Regolamento Didattico di Ateneo" prot. n. 341/2019) and inherits any articles related to the functioning of master's degree courses.

Art 1

Learning Objective of the MSc in Management Engineering

The growing complexity and dynamism of the competitive system in the era of globalization and digitization requires new professionalism able to address the problems in an interdisciplinary, flexible and innovative way. The figure of the Management Engineer responds to the needs of today's markets and this is the reason why the Management Engineer is increasingly appreciated and required both in the business world and in the public administration.

The management engineer uses qualitative-quantitative tools, decision-making supports and methodological rigor typical of engineering sciences to understand multifaceted phenomena and solve complex problem related to business contexts. The engineering vision and method applied to management and organizational problems allow the achievement of higher levels of efficiency and effectiveness of solutions, contribute to a better understanding of business phenomena, facilitate the identification and control of the most significant decision variables in the various business processes, lay the foundation for continuous improvement of business results on measurable parameters and, finally, lend themselves to the construction of well-structured relationships between the various functions of the company and between companies.

While the preparation of a BSc management engineer is based on a solid basic training built on disciplines such as mathematics, physics, economics, statistics, operations research, computer science and design skills borrowed from the main engineering disciplines to which are added the characterizing disciplines, namely those relating to the fields of manufacturing technologies, industrial plants and economic-management engineering, **the learning objective of the master's degree focuses more on the management training of the management engineer.**

In particular, the learning objective of the master's degree program in management engineering, that is, to train an engineer-manager is translated into two specific sub-objectives:

The first specific learning objective is to transfer into the engineer student the so-called "hard" knowledge and skills of engineering-based management education, i.e., to provide in-depth, specialized, and scientific knowledge of managerial issues ranging from project management, innovation management, marketing, corporate finance, strategies, and supply chain management, as well as advanced technical skills for the "design" application of the acquired knowledge, for example, the skills of complex project management and quantitative and statistical analysis of business processes. Particular emphasis is also given to change management processes for the digitalization of the business and for the conversion towards the circular economy.

To achieve the first specific objective above, the training path is divided into 3 Learning Areas, which correspond to 3 blocks of disciplines:

- The Disciplines that constitute the methodological basis Management Engineer, i.e. the in-depth study of statistical methods for management engineering, the methodologies of analysis and modeling of business processes, the methodologies for project management;
- The Disciplines that constitute the managerial training of the Management Engineer or disciplines related to business functions such as marketing, finance, strategies, supply chain management and

operations and cross-functional disciplines such as management of technological innovation and the design and management of customer satisfaction and human resources.

- The in-depth disciplines on management issues, the so-called advanced management knowledge areas, i.e., disciplines related to the aspects and challenges of enterprise 4.0, environmental and social sustainability, digital transformation, innovation and organizational entrepreneurship, and data analytics for business.

The second specific learning objective is to increase in the student master management engineer transversal skills and abilities, the so-called "soft skills", extremely important for a complete management training. The ability to listen and communicate, teamwork, flexibility and leadership have always been an important requirement for those who aspire to become managers. Moreover, in our globalized and highly competitive economy, soft skills have become a fundamental competence.

Add to that the fact that digital transformation has made the role of soft skills even more relevant. Implementing the digital transformation projects of companies and productive sectors requires much more than technologies. The ability to relate to, negotiate, lead and sponsor change is even more crucial, because cultural transformation is the basis of digital transformation.

To address the second specific training objective, the teaching methodologies and content of individual lessons throughout the training are designed to stimulate:

- The development of soft-skills related to team working, self-entrepreneurship, and leadership. All courses include teaching activities of a "project" nature and use typical MBA teaching methodologies such as group-project, case study, flipped-classroom, in-class discussion precisely to stimulate these soft-skills.

- The development of soft-skills related to the aptitude for internationalization and global vision of markets. In addition, the fact that the course is delivered in English means that there are international students in the classroom and that an international atmosphere is created that can stimulate discussion and group projects towards a spirit of globalization.

Art 2

The Study Plan (Manifesto)

Each year the Academic Council (CICS) updates and publish the Study Plan according to the learning objectives described in Art. 1. The study plan of each academic year, including eventual specialization curricula and each single subject's syllabus ("scheda di trasparenza") is published in the course website at the following link:

<https://www.unipa.it/dipartimenti/ingegneria/cds/managementengineering2255/?pagina=pianodistudi>

Every year, according to the Official Academic Calendar of the University of Palermo, students can submit an application via the UNIPA student portal for the approval of their individual study plan with the selected elective and free choice subjects. The students' study plans are evaluated by a specific Commission nominated by the Academic Coordinator. The approval is automatic if the students will select the free choice subjects pre-selected by the Course Council and published in the course website at the link:

<https://www.unipa.it/dipartimenti/ingegneria/cds/managementengineering2255/>

Art 3

Access Requirements

The MSc in Management Engineering is an International Program, it is entirely taught in English, and welcomes Italian and International students.

Students who want to enrol at the MSc in Management Engineering must hold a Bachelor Degree or comparable foreign qualification in accordance with the provisions of the Academic Regulations of the University, together with curricular requirements and educational background as specified in the

Regulations for accessing the MSc Degree in Management Engineering, available in the University of Palermo website at the following link:

<https://www.unipa.it/target/futuristudenti/iscriviti/corsi-accesso-libero/>

Instruction for enrolment and deadlines for international students are available at:

<https://www.unipa.it/mobilita/en/new-students/new-students---enrolment/enrolment-procedures-for-extra-eu-foreign-students/>

Access requirements assessment, eventual additional credits to be acquired before admission, potential ECTS granted from student coming from other MSc Degree courses, are evaluated by a specific Commission nominated by the Academic Coordinator.

Art 4 Student Mobility

The participation of the students at international mobility programs (Erasmus, Double Degree, etc.) is regulated by the General Regulation of Student Mobility of the University of Palermo and by the yearly Call for Student Mobility Application of the University of Palermo.

For mobility purposes, the student prepares the Learning Agreements (LA) which, as also the Transcript of Records (TOR), is evaluated and approved by the Erasmus Agreement Coordinator and the Academic Coordinator. The grades reported in the TOR is translated according to the following scale.

ECTS GRADE	A	B	C	D	E
Italian GRADE	30L-30	29-27	26-23	22-19	18

Other educational activities and master thesis preparation work can also be acknowledged in the TOR. Detailed information about student mobility general rules and call for applications of the University of Palermo are available in the website

<https://www.unipa.it/mobilita/>

Art 5 Teaching Methods

The teaching methods can be traditional (lectures and in-class exercises) and innovative for active learning (educational project, case studies, in-class discussion, flipped classroom, in-class presentation, business games, simulation, etc.). Teachers can also invite external speakers (academic and/or practitioner) for focused seminars. Other forms of teaching activities are: meeting with students, assistance with tutoring and orientation, company study visits, ongoing and final tests, master thesis preparation, internships, professional training, participation in conferences and study trips, participation in international student mobility (Erasmus, Double Degree programs, etc...).

The Academic Council (CICS) annually prepares the plan of teaching activities, splitting the subjects into two semesters, as well as identifying each subject's teacher from the teachers of the University of Palermo. If the CICS does not find any available teacher for a given subject, then it inform the Department of Engineering.

On average, in line with the other Courses of the Department of Engineering, each ECTS (CFU) corresponds to 25 hours of student study/work, out of which 9 hours have to correspond to in-class learning activities. In other words, each teacher should guarantee 9 hours of in-class teaching for 1 ECTS (CFU).

Art 6

Other Educational Activities (AAF)

The Study Plan includes 6 ECTS (CFU) for Other Education Activities (according to the Art. 10, comma 5, lettera d) of the D.M. 270/2004)

The student can acquire these ECTS (CFU) s through:

- a) Internship and Stage
- b) Professional and work activities
- c) Seminars, labs, or any other educational activities useful for future job placement

a) Stages and Internships

Stages and Internships (“*Tirocini di formazione e orientamento*”) are regulated by the General Regulation for Internships and Stage of the University of Palermo, available at:

https://www.unipa.it/amministrazione/direzione generale/prevenzionedellacorruzione/.content/documenti/regolamenti_per aree tematiche di interesse/regolamenti di interesse generale/Regolamento-generale-dei-tirocini-di-formazione-e-di-orientamento---D.R. n. 2999-del-26.07.2021.pdf

b) Professional and job activities

The student can ask for accreditation of ECTS (CFU) from previous work or job experience which the CICS acknowledge as coherent with the learning objectives of the MSc in Management Engineering. For each 25 hours of work experience the CICS acknowledge 1 ECTS (CFU). The student should attach to the request: 1) a report on the work experience signed also by her/his company supervisor; 2) a declaration of the number of hours of work he/she did signed by the supervisor; 3) the job contract.

c) Seminars, labs, or any other educational activities useful for future job placement

The student can attend any other education activity (in the form of seminars, workshops, labs, conferences, technical courses, etc.) whose ECTS (CFU) accreditation has already been approved by the CICS.

According to the Art. 10, comma 5, lettera d) of the D.M. 270/2004), the CICS approves AAF aimed at the acquisition of foreign language knowledge, IT and digital skills, relational skills, and any other knowledge useful for entering the job market.

For each 25 hours of student work, out of which at least 8 hours of in-class activities, the CICS acknowledge 1 ECTS (CFU). To be “accredited”, the seminar (or Lab, workshop, etc.) must have an Academic Referent (selected from the University of Palermo professors, who can also be nominated by the CICS itself) who is responsible for the final exam that the student should take at the end of the educational activity.

Art 7

Free Choice Subjects

Every year, in respect to the deadlines of the Official Academic Calendar of the University of Palermo, students can apply via the UNIPA student portal for the approval of their individual study plan with the selected elective and free choice subjects. The students’ study plans are evaluated by a specific Commission nominated by the Academic Coordinator. The approval is automatic if the students will select the free choice subjects pre-selected by the Course Council and published in the course website at the link:

<https://www.unipa.it/dipartimenti/ingegneria/cds/managementengineering2255/>

The free choice subject should be also approved by the Academic Director of the BSc or MSc Program where the selected subject is taken.

Art 8

Mandatory preparatory subjects and class attendance obligations

There are no prerequisites required to attend a class or to take an exam. The student can take any exam without having already taken others. However, the syllabus (*schede di trasparenza*) of each subject indicates what knowledge background (even in terms of previous class taken) the student is expected to possess to be able to follow the subject effectively.

There are not obligations for students to attend the classes, but their participation in the class activities is strongly suggested.

Art 9

Exams

The evaluation methods adopted for each course are reported in the subjects' syllabus (*schede di trasparenza*). The Quality Assurance Commission of the CICS, also on the basis of the indications of the Joint Teacher-Student Commission (*Commissione Paritetica Docenti Studenti, CPDS*), evaluates the congruence of these methods with the expected learning objectives and the ability to distinguish the levels of achievement of the aforementioned results.

Assessments methods can include a written or oral exam, or both, but also in-class evaluation (presentations, case study discussion, business games, etc.) and group project evaluations. For part-time students, the exam methods are the same as for full-time students and the exam schedule is that established by the University Official Academic Calendar.

Precise information about exams rules and assessment methods for each course must be provided by the teacher during the first lesson.

Students' evaluation (through the exams) is performed by an examination commission which is composed by at least two members, one of which is the teacher in charge of the course (the President of the examination commission). The Commission (included the substitute members) is appointed by the Academic Coordinator. The replacement is communicated by the president of the commission to the Academic Coordinator, who will appoint the substitute member.

Art 10

Teachers

The list of the teachers of MSc in Management Engineering is reported in the course webpage at:

<https://www.unipa.it/dipartimenti/ingegneria/cds/managementengineering2255/?pagina=docenti>

Art 11

Master Thesis, Final Examination, Graduation Ceremony

Each student before graduation should write the master thesis and defend it during the final exam. The final exam count for 15 ECTS (CFU). The instructions on how to write a master thesis, how to apply for final exam, how the final exam grade is calculated, and everything related to master thesis and final exam matters are regulated by a specific Regulation for the final examination of the MSc In Management Engineering, available at:

<https://www.unipa.it/dipartimenti/ingegneria/cds/managementengineering2255/regolamenti.html>

Art 12

Joint Teachers-Students Commission (*Commissione Paritetica Docenti Studenti, CPDS*)

The MSc Degree in Management Engineering participates in the composition of the Joint Teacher-Student Commission of the Department of Engineering with a Teacher (professor or researcher, excluding the CICS Coordinator) and a student. They are both elected by the CICS.

The CPDS verifies that the teaching activities respect the all the Regulations of the University of Palermo and the Official Academic Calendar. The internal regulation of the CPDS of the Department of Engineering as well as its composition is available at the Department of Engineering website at: <https://www.unipa.it/dipartimenti/ingegneria/qualita/cpds.html>

Art 13

Commission for Quality Assurance of MSc in Management Engineering

The commission, appointed by CICS, is composed by the CICS Coordinator, who will act as President of the commission, two teachers of the master's degree course, a unit of technical-administrative staff and a student. The student is chosen from among the student representatives within the CICS and cannot coincide with the student who is a member of a Joint Teacher-Student Commission. The commission has the task of preparing the Cyclic Review Report (Rapporto di Riesame Ciclico, RRC) of the master's degree course, of evaluating the Syllabus (schede di trasparenza) of each course, of drafting the comments on the indicators of the Annual Monitoring Sheet (Scheda di Monitoraggio Annuale, SMA). The commission guarantees the monitoring of the quality of educational services and the evaluation of interventions aimed at improvement.

Art 14

Assessment of educational quality performance

The CICS collects students' opinions on the quality of teaching through the official University of Palermo survey for teaching. Each student is asked to assess the quality of each subject, including teaching ability of the teacher, the logistics and organization of the teaching, as well as the student's interest in the topics covered. The survey is conducted through an IT procedure. The questionnaire is accessible from the Student Portal of the University website. The results of the survey are reported in annual master degree report (Scheda Unica Annuale, SUA), and together with evaluation of the survey by the Nucleo di Valutazione (NdV) and the CPDS they are analyzed annually in appropriate sessions of the CICS.

Art 15

Tutoring

The tutoring activity is carried out by CICS tutor teachers in relation to the needs of the students during their study course. It mainly concerns aspects of student satisfaction, internships, student's mobility, and master theses. The Academic Coordinator and the Secretary of the Master Degree are the main referents for any question or doubt the student may have: admission requirements, curriculum selection, free choice subjects, elective courses, , transfer from other master degree programs. The names and contact details of the tutor teachers are shown on the master program website.

<https://www.unipa.it/dipartimenti/ingegneria/cds/managementengineering2255/didattica/tutorato.html>

Art 16

Regulation updates and website

CICS ensures the periodic review of this regulation. The regulation, approved by the CICS, applies immediately. This regulation, as well as any other information relating to the functioning of the master degree program not included in the regulation, can be found on the master program website.

<https://www.unipa.it/dipartimenti/ingegneria/cds/managementengineering2255/regolamenti.html>