



**RULES OF THE MASTER DEGREE**  
**Management Engineering**  
**(Class LM-31, LM-33)**  
**A.Y. 2023/24**

- Art. 1 General presentation of the study program: Content and Purpose
- Art. 2 Educational objectives and job opportunities
- Art. 3 Access and entry skills (Access requirements, Admission criteria, Reception activities for freshmen, Self-assessment of entry skills)
- Art. 4 Contents of the study Programme (List of exams, Schedule, Teachers, Individual study plan, Attendance obligations, Required prerequisites, Part-time commitment, Interruption of studies, Examination procedures, Examination committees, Internship, Language skills, Recognition of extra-university credits, Student mobility and studies completed abroad, Transfers and Passages from other study programs, Single Exams, Final Exam, Innovative Teaching)

**Art.1 General presentation of the study program: Content and Purpose**

School	Interdepartmental School of Science, Engineering and Health (SIS)
Code Reference Law	Engineering
Code	0326
Reference Law	D.M. 270/04
Class of Degree	L-31, LM-33
Level	Master degree
Official length of the programme	2 years
First activation A.Y. di	2011-2012
Location of the course	Napoli Isola C4 Centro Direzionale
Coordinator of the Study programme	Nicola Massarotti
Website of the School	<a href="http://www.sisis.uniparthenope.it">www.sisis.uniparthenope.it</a>
Website of the Department	<a href="http://www.ingegneria.uniparthenope.it">www.ingegneria.uniparthenope.it</a>
Website of the Study programme	<a href="https://orienta.uniparthenope.it/laurea-magistrale/ingegneria-gestionale/">https://orienta.uniparthenope.it/laurea-magistrale/ingegneria-gestionale/</a>

The Master of Science (MSc) in Management Engineering aims to prepare a high-profile professional figure capable of: i) operating in the industrial and services sector with a particular aptitude for solving problems related to their operational management, ii) responding to new challenges that companies face to be competitive nationally and internationally. The educational offer of the MSc in Management Engineering intends to respond to the growing demand for modern engineers, who have received multidisciplinary education and are capable of evaluating the impact of technologies on the socio-economic context.

The MSc aims at training a new generation of engineers with specific skills and high-profile education capable of effectively applying advanced management methodologies for the identification, formulation, and solution of problems related to conception, design, organization, and operational management of production systems for goods and services, taking into account also energy sustainability. On this basis and in line with the current technological scenario and the important transformation expected by the industrial sector and by society in the next few years due to the sustainable transition, distinctive skills on the methodologies and analysis tools used in the management of complex systems, such as technological innovations, strategic planning of industrial investments, plant services, safety management and the quality of production systems are developed.

The programme has been designed to ensure, in a balanced and adequate way, a complete set of skills and pre-professional experiences. Students can enroll in curricula in English, with the possibility of specific experiences abroad, at prestigious universities that cooperate with Parthenope University, and with recognized companies and organizations at national and international level. The first of these curricula gives the opportunity of a double degree with other foreign Universities, on the topics of technological innovation and its implications on sustainable transition. In the second curriculum in English, the 1<sup>st</sup> year is shared with the previous one. It focuses on the topic of entrepreneurship and aims to strengthen the knowledge and skills useful for increasing the creativity of students and their entrepreneurial orientation. It is an international curriculum enriched by the participation of colleagues from the Massachusetts Institute of Technology. Students will have the opportunity to spend a period of study at the prestigious US University. Students of the second curriculum may obtain, in addition

to the Master's degree in Management Engineering, the Master in Entrepreneurship and Innovation Management.

Overall, the student must acquire 120 educational credits (CFUs), which are uniformly distributed over the two years.

## **Art. 2 Learning objectives and job opportunities**

### **2.1 Learning objectives.**

The MSc in Management Engineering aims at preparing high-profile professional figures capable of combining tools and methods of planning, design, organization, and management. The job market and in particular SMEs require highly qualified technicians with adequate knowledge in the disciplines that concern both organizational and managerial activities as well as planning and production. Therefore, the figure of an engineer who combines fundamental skills of management engineering with those of mechanical engineering is becoming more and more attractive. The MSc in Management Engineering is therefore designed as an interclass course between the LM-31 class (Management Engineering) and the LM-33 class (Mechanical Engineering) and intends to respond to these needs by integrating adequate education in the disciplines that characterize Management Engineering with specific education in some disciplines that characterize Mechanical Engineering.

The study program to achieve the Master's Degree in Management Engineering includes activities distributed in a balanced way in the disciplines related to the areas characterizing Management Engineering and Mechanical Engineering, integrated with other related cultural areas. The disciplines included in the curriculum concern both the typical sectors of management engineering (management of industrial production, management and optimization of industrial services, economics and management control, industrial automation, logistics, industrial management of quality and safety) and those of mechanical engineering (industrial transformation processes, energy management, energy conversion systems, energy economics and renewable energy) as well as other related disciplines (electrical systems for energy and materials for engineering and industrial instrumentation). In particular, the MSc includes core courses and two curricula mainly characterized by the theme of entrepreneurship, connected to technological innovation and internationalization. In the 1<sup>st</sup> YEAR of the course, students acquire, through the core courses, knowledge related to energy management, industrial services management, supply chain management, automatic controls, energy systems management, and production and quality management. Therefore, the core courses in the 1<sup>st</sup> YEAR belong to the Italian scientific sectors of ING-IND/10, ING-IND/09, ING-IND/17, ING-IND/35, ING-INF/04. In particular, three of these courses are offered both in Italian and in English. However, students can follow some courses in a language different from that of the chosen curriculum. In the 2<sup>nd</sup> YEAR of the course, students acquire, through the core courses, knowledge related to electrical quality and safety, industrial automation, management of thermotechnical systems and sustainable energy technologies. Therefore, the core courses in the 2<sup>nd</sup> YEAR belong to the Italian scientific sectors of ING-IND/33, ING-IND/10, ING-IND/09, ING-INF/04. The educational program is completed with elective courses that can be selected according to the student's preference, IT skills, and the final exam that has to be integrated with an internship in a company or the laboratories of the Engineering Department. The internship involves an important project activity, in most cases related to the production of goods or services. This activity, in addition to demonstrating the knowledge of the topics and the ability to operate independently, highlights the communication and interpersonal skills, the ability to combine in a balanced way the technical aspects with the managerial, organizational, and economic ones. The other two curricula are offered in English and allow to achieve the same learning objectives, by focusing on the topics of entrepreneurship and technological innovation, and by strengthening the knowledge and skills useful for increasing the creativity of the students and their ability to operate in international contexts.

The first of these curricula gives the opportunity of a double degree with other foreign Universities, on the topics of technological innovation and its implications on sustainable transition. In the 1<sup>st</sup> YEAR of the course, students acquire the same knowledge as the basic curriculum through the core courses. In the 2<sup>nd</sup> YEAR of the MSc, students acquire, as part of core courses, knowledge related to supply chain management, facility planning and design, sustainable energy technologies and industrial automation. In the second curriculum in English, the 1<sup>st</sup> year is shared with the previous one. It is an international curriculum enriched by the participation of colleagues from the Massachusetts Institute of Technology. Students will have the opportunity to spend a period of study at the prestigious US University. Students of the second curriculum may obtain, in addition to the Master's degree in Management Engineering, the Master in Entrepreneurship and Innovation Management.

## 2.2 Job opportunities.

The job opportunities of management engineers with a Master's Degree are wide and diversified, confirming the attention that the job market has paid to this professional figure, enhancing their intrinsic flexibility. The international curricula of the MSc also allow them to approach the European and international job market. Thanks to the multidisciplinary technical and managerial knowledge, the management engineer can work in companies in the manufacturing, energy, logistics, transport, ICT, services and strategic consulting sectors, or as a project manager, plant designer, energy manager as well as in public administrations. The skills, acquired during the MSc, allow new graduates to apply for operational, managerial and managerial roles within SMEs and large players on the national and international scene, such as Safety Engineer, Energy Manager and the Project Manager. Master management engineers can work in all companies and sectors where, due to their complexity, technology and management represent a critic element and play an important role. Therefore there are multiple job opportunities due to their high-profile and qualified multidisciplinary educational program: they are present in industrial companies, but also in service companies, in utilities (communications, energy, transport, logistics, etc.), media companies, in hi-tech and provider of ICT solutions and services, in consulting companies (both strategic and applicative), in financial institutions, in authorities, in training, control / inspection / accreditation and certification bodies, in public and private research institutes (national and international), in the public administration and in the non-profit sector. Graduates in management engineering represent industrial engineers expert in process management, who can be enrolled, after passing the state exam, in the Italian register of engineers in the section A industrial sector.

## Art. 3 Access and entry skills

Free access.

### 3.1 Access requirements

Enrollment in the MSc program is reserved for students with a Bachelor's Degree or a first-cycle degree equivalent to the Italian Laurea obtained abroad, recognized as suitable by the Programme Committee.

Minimum requirements include also linguistic skills consisting in the ability to use the English language fluently, in written and oral form, with reference also to disciplinary lexicons. These skills correspond to level B2 of the CEF (Common European Framework). This requirement can be verified through a certification issued by an authorized school or through an interview conducted on site.

Fulfilling the above criteria does not ensure application acceptance. Each application will be evaluated by a Committee to verify **curricular requirements** and the **adequacy of the student's preparation**.

### Curricular requirements





Fulfilling curricular requirements is automatic with a Bachelor's Degree in **Management Engineering, Mechanical Engineering or Energy Engineering**, or with a first-cycle degree equivalent to the Italian Laurea, also obtained abroad, recognized as suitable by the Programme Committee.

Students that do not meet the above requirements must have acquired (either in the three-year degree or through assessment of individual courses) before enrolling in the master's degree, the minimum number of credits (CFUs) for the Italian scientific sectors listed below:

- at least 33 CFUs in the Italian scientific sectors included in the basic fields (MAT/02; MAT/03; MAT/05; MAT/06; MAT/07; MAT/08; MAT/09; SECS-S/02; CHIM/07; ING-INF/05; FIS/01);
- at least 15 CFUs in at least two of the scientific sectors specific of the Master's Degree (ING-IND/16; ING-IND/17; ING-INF/04; ING-IND/35; ING-IND/08; ING-IND/09; ING-IND/10).

To fulfill the above requirements, also CFUs acquired in scientific sectors considered similar by the Programme Committee can be taken into account.

Applications by students who do not meet the criteria for automatic admission will be examined by the Committee for the evaluation of the Educational Activities Plan, which assesses the admissibility of the request, establishing any requirements to be fulfilled for admission to the Programme.

Students can proceed, depending on the extent and type of the requirements, with the following options:

- a. they can fulfill the requirements before enrollment, according to art. 6 paragraph 1 of the D.M. March 16, 2007, by enrolling in individual teaching courses activated by the University and passing the related exams (for a maximum of 18 CFUs);
- b. they can enroll in the Programme with a Plan of Educational Activities which allows fulfilling the curricula requirements, according to art. 6 paragraph 3 of the D.M. March 16, 2007.

For non-EU candidates, enrollment is subject to a preliminary assessment of the candidate's preparation based on his/her CV. The possession of the curricular requirements is assessed by a committee appointed by the Programme Committee based on the University Transcript. The minimum requirement consists of a Bachelor's Degree or a first-cycle degree equivalent to the Italian Laurea obtained at least with a "First Class" level, where required. Applicants can also provide up to two reference letters to support their application.

For non-EU candidates, enrollment is subject to the immigration rules defined by the Italian government. Detailed information is available on the "[Foreign Students](#)" website managed by the Ministry of University and Research and on the website of the Italian diplomatic missions (Embassies, Consulates or Cultural Institutes) in the applicant's country. Early application is strongly encouraged, as immigration regulations require a limited number of non-EU students to be enrolled in the program each year, so applications are processed on a first-come-first-served basis.

#### Adequacy of the student's preparation (for Italian students)

The adequacy of personal preparation is considered automatically verified if one of the following conditions is satisfied:

- a. the student has obtained his/her first-cycle degree in a number of years equal to the number of years established for the type of commitment (full-time, not full-time);
- b. the student has obtained his/her first-cycle degree with a final degree grade not lower than 105/110;
- c. the student has obtained his/her first-cycle degree with a degree score higher than or equal to 92/110 in a number of years not exceeding double the number of years established for the type of commitment (full-time, not full-time).

The adequacy of personal preparation is not verified when the first-cycle degree is obtained with a final degree score lower than 92/110 in a number of years higher than the number of years established for the type of commitment (full-time, not full-time). If the adequacy of personal preparation is not verified, it is required to pass an admission test in the form of an oral interview. After passing the admission test with a positive result, the student can enroll in the master's degree Programme with the approval of the Programme Committee.

### 3.2 How to enroll

Students can enroll in a Programme of the Department of Engineering by February 28 of each year, unless it is extended. Instructions for completing the application can be found at the link:

<https://orienta.uniparthenope.it/modalita-immatricolazione/>

The evaluation for admission is assigned to a Committee that will examine the curriculum of candidates according to the methods indicated in this document.

Candidates with a non-Italian first level degree and/or that require a visa must submit an online application through the University portal (<https://www.university.it/>) to verify eligibility for admission, providing the following documents:

1. passport
2. provisional certificate
3. University transcript
4. curriculum vitae
5. cover letter
6. certification of the English language proficiency
7. n. 2 reference letters (optional).

### 3.3 Reception activities for freshmen

Just before the start of the courses, a welcome event for new students is organized to introduce them to the new cycle of university studies and the organization of teaching, services as well as the various opportunities offered by the Programme.

### 3.4 Assessment of entry skills

Applications to the Programme will be examined by the Committee for the evaluation of the Educational Activities Plan which will assess the admissibility of candidates with unquestionable judgment, establishing any requirements that have to be fulfilled to be admitted to the Programme.

The Committee for the evaluation of the Educational Activities Plan may examine the curriculum of candidates, also taking into account the scores obtained in specific courses or other courses of particular relevance for successful completion of the MSc Programme, or, following an interview, adopting the methods a) and b) indicated in section 3.4.1.

#### 3.4.1 Additional educational requirements

If the minimum curricular requirements, specified in this regulation in point 3.1, are not fulfilled, enrollment in the MSc can be carried out through additional educational requirements. The Committee for the evaluation of the Educational Activities Plan evaluates the curricular requirements of the candidates and establishes the methods by which the student can integrate his/her preparation by selecting it, based on the extent and type of the additions requested, from the following options:

- a. students can fulfill the requirements before enrollment, according to art. 6 paragraph 1 of the D.M. March 16, 2007, by enrolling in individual teaching courses activated by the University and passing the related exams (for a maximum of 18 CFUs);

- b. students can enroll in the MSc with a Plan of Educational Activities which allows fulfilling the curricula requirements, according to art. 6 paragraph 3 of the D.M. March 16, 2007. This option allows considering integration for a total number of credits higher than 120.

A similar procedure can be taken into account by the Committee appointed by the Study programme Committee for the evaluation of non-EU candidates.

#### **Art. 4 Contents of the Study Programme**

The MSc in Management Engineering consists of activities distributed in a balanced way in the disciplines aimed at obtaining a specific preparation in the areas of Management Engineering and Mechanical Engineering, integrating some other related cultural areas. The disciplines included in the programme concern the typical sectors of Management Engineering (management of industrial production, management and optimization of industrial service technologies, economics and management control, industrial automation, logistics, industrial quality and safety management) as well as those of Mechanical Engineering (industrial transformation processes, energy, energy conversion systems, energy economics and renewable energies) and disciplines of correlated areas (electrical systems for energy, databases, corporate information networks, industrial instrumentation). The Study Programme ends with an important project activity, in most cases carried out in the context of a productive reality of goods or services. This activity, in addition to demonstrating the knowledge of the topics and the ability to operate independently, highlights the communication and interpersonal skills, the ability to combine in a balanced way the technical aspects with the managerial, organizational and economic ones.

The course includes a curriculum in Italian and two international curricula in English.

The first international curriculum enriches the degree of internationalization of the Programme by adding Double Degree opportunities with other foreign universities on the issues of technological innovation and its implications on sustainable transition. For students participating in Double Degree courses, the activities to be carried out abroad and their recognition are established in the agreements with the Partner Universities and are reported in the call specifically issued by the Department for their selection.

Students that follow the second of the two international curricula (Entrepreneurship and Innovation Management) have the opportunity to obtain, in addition to the degree, the Master's degree in Entrepreneurship and Innovation Management, developed as part of the MIT-Parthenope Global Program. To achieve the double degree, students must complete the activities included in the agreement and spend two weeks abroad. Once the activities have been completed, undergraduates or graduates who have earned the CFUs of the Master, can complete the activities and internships and achieve, in addition to the Master's Degree, also the Master's Diploma. The selection for the Master takes place in September and the selected students will continue on this curriculum; the others will continue on the first international curriculum.

##### **4.1 List of exams**

The list of exams can be found at the following link:

<https://international.uniparthenope.it/all-courses/management-engineering/>

##### **4.2 Calendar**

The Academic Calendar is updated every six months, in September and February of each year, and can be found at the following link:

<https://sisis.uniparthenope.it/calendario-delle-lezioni-area-cds-ingegneria-2/>

##### **4.3 Professors**

The list of professors is updated annually, in September, and can be consulted at the following link:

<https://www.ingegneria.uniparthenope.it>



#### *4.4 Individual study plan*

Each student can prepare an individual study plan, as long as it is consistent with the didactic organization of the degree program. The individual study plan has to be assessed and approved by the Programme Committee.

#### *4.5 Attendance obligations*

The course is full-time and includes participation in lectures, exercises, and laboratory activities. Attendance is not mandatory, but it is highly recommended to allow continuous interaction with teachers and facilitate learning.

#### *4.6 Required prerequisites*

There are no required prerequisites, although for each course some suggestions are given to easily proceed with the studies and pass the exams.

#### *4.7 Part-time commitment*

Students who, for work or other reasons, believe that they are unable to continuously attend the educational activities included in the Program and that they cannot take the related exams and tests within the time limits set by the didactic regulations, can ask for part-time enrollment. Part-time enrollment involves the division into two consecutive academic years (between a minimum of 26 credits and a maximum of 34 credits have to be collected) of the total credits established by the Didactic Regulations for each full-time year.

Part-time enrollment is permitted only for students who are enrolling in the first year or that are not outside the prescribed time.

For further detailed information, please contact the Student Secretariat and/or refer to the University Regulations available in the section "Students" at the link:

<https://www.uniparthenope.it/Portale-Ateneo/statuto>

#### *4.8 Interruption of studies*

For information on how to interrupt studies, please refer to the University Didactic Regulations available in the section "Students" at the link:

<https://www.uniparthenope.it/Portale-Ateneo/statuto>

#### *4.9 Examination procedures*

Assessment of learning can be carried out by the teacher through written and/or oral tests, as indicated in the course sheets.

The examination procedure is at the discretion of the teacher of the individual course. Detailed information on the individual courses can be found at the following link:

<https://uniparthenope.coursecatalogue.cineca.it/cerca-insegnamenti>

#### *4.10 Examination committees*

Examination committees include at least two members, one of whom (acting president) is the holder of the course. The other members are teachers and researchers of the scientific sector of the course or similar scientific sectors and, only in the absence of teachers who fulfill these criteria, of the same Macrosector or, at least, of the same Area of the course. Lecturers nominated for the specific teaching by the Department Board can also be part of the committees.

#### *4.11 Internship*

The internship is prescribed by the Ministerial Decree 509/99 and by the Didactic Regulations of the Degree



Programs and can be carried out at internal or extra-university structures. It consists of the participation of the student in the activity of the host structure based on the internship program aimed at providing knowledge of the labor market. The internship is a training experience aimed at alternating moments of study and work and at facilitating professional choices through direct knowledge of the labor market.

The program of the MSc in Management Engineering of the Engineering Department of the University of Naples Parthenope establishes that the students during the last year of the programme complete their training through a curricular internship, in an internal structure of the University or an external structure.

The internship has an explicit educational purpose, it is part of the educational path and involves the acquisition of CFUs as established in the degree program.

The duration of the activities must normally be no lower than a month. To define the total number of days to carry out the internship according to the CFUs of the Study Plan, it is assumed that 1 CFU is equivalent to 25 hours of student commitment.

To access the internship, the student must have already acquired at least 60 CFUs. It is possible to access this activity from the beginning of the second semester of the last year of the programme and, later, at any time.

To carry out the internship both in an internal structure of the University and in an external structure, the student has to arrange the subject of the internship with a teacher holding a course present in the study plan of the MSc in Management Engineering and then submit a request to the Programme Committee. The teacher will be the student's academic tutor.

To activate an external internship, an agreement has to be stipulated between the University (promoter) and the company that will host the intern (host). The host structure will have to assign a company tutor to the student, who will work alongside the academic tutor. The objectives and methods of carrying out each internship agreed between the academic tutor, the company tutor and the student, are defined by the training project containing: the references of the intern and the host company, the indication of the time spent in the company, the duration of the internship, the names of the academic tutor and the company tutor, the identification details of Inail and civil liability insurance. The training project will be signed in duplicate by the Coordinator of the Programme Committee and by the legal representative of the host organization. A copy of the training project must be delivered by the student to the academic tutor.

For internship activities at an internal structure of the University, the training project is not needed. The activities must be preparatory to the final exam, therefore the student will have to carry out an internship on a topic connected with the thesis and the thesis supervisor will also be the academic tutor. The contents of the internship and thesis must in any case be independently assessable, since, even if aimed at preparing the thesis, the curricular internship provides for the allocation of specific training credits not included among those of the final exam.

At the end of the internship, the student must produce a final report that describes in detail the activities carried out during the period; projects, studies, and analyses carried out during the internship may be the subject of the report to be submitted for the final evaluation.

For the internship associated with the thesis, the report will document the contents of the preparatory activity for the final exam.

In the case of an external internship, the student must attach to the report at the end of the internship a certificate of the company tutor, indicating the hours completed. Based on this documentation, the Coordinator of the Programme Committee and the academic tutor assign the training credits for the internship. There is no vote for the internship activity carried out. The approval and consequent assignment of credits are communicated by the Coordinator of the Programme Committee to the Student Secretariat.

More details are reported on the website of the University at the following link:

<https://orienta.uniparthenope.it/placement/studenti/>.

#### 4.12 Language skills

To be admitted to the master's degree, the student must have a level of knowledge of the English language equal to B2 (CEFR level). This requirement can be verified through a certification attesting the knowledge of the English language issued by an authorized school or through an interview conducted on site before enrollment.

#### 4.13 Recognition of extra-university credits

For previous knowledge and professional activities, according to art. 14 of Law no. 240/2010, a maximum number of credits equal to 12 can be recognized. The recognition and the number of any educational credits will be at the discretion of the Programme Committee.

#### 4.14 Student mobility and studies completed abroad

Students have the opportunity to spend periods of study abroad to experience different cultures and improve their language skills. As part of the Erasmus+ mobility program, the Degree Program has numerous active bidirectional agreements with foreign, European and non-EU universities (USA, China) aimed at international (bidirectional) mobility of students enrolled in the two universities.

Detailed information on exchange programs, international relations, methods and regulations regarding international mobility can be found at the following link:

<https://internazionalelingue.uniparthenope.it/>.

#### 4.15 Transfers and Passages from other study programs

Requests for transfer from another Degree Program or transfer from another University are evaluated by the Committee for the evaluation of the Educational Activities Plan and approved by the Programme Committee, indicating the recognized credits and the year of the course to which the student is admitted. Only the CFUs attributed to the Scientific Sectors included in the study plan of the MSc and which have been acquired on courses referable to the teachings of the study plan of the MSc are recognizable. If the CFUs acquired on a course are lower than those of the corresponding course in the MSc, the missing CFUs must be acquired through an additional interview to be carried out as for the exam. For the recognition of CFUs acquired at other universities, in addition to those of the European Union, the equivalence between the passed exams and the ones included in the study plan of the MSc will be assessed on a case-by-case basis. Students will be enrolled in:

- 1<sup>st</sup> year, if the number of credits recognized is lower than 30
- 2<sup>nd</sup> year, if the number of credits recognized is equal to or higher than 30.

#### 4.16 Single Exams

Students that have at least a Bachelor's Degree or a first-cycle degree equivalent to the Italian Laurea obtained abroad can enroll in single educational training activities, take single exams and have regular certification.

Enrollment in single educational activities cannot take place simultaneously at several universities, nor can it be simultaneous with enrollment in other types of study courses activated at any university, including the Parthenope University of Naples, under penalty of forfeiture from both.

Enrollment takes place by submitting a specific application with stamp duty to the Secretariat of the MSc where the chosen course is activated from September 1<sup>st</sup> to March 31<sup>st</sup> of each academic year.

Exams can be taken for any course activated for the academic year of reference.

The MSc in Management Engineering recognizes at most 18 CFUs earned in the same academic year.

#### 4.17 Final exam

##### 4.17.1 Objectives and Characteristics of the Final Exam

The final exam consists in the discussion in front of a commission composed of at least seven teachers of a

written paper (thesis) that focuses on the contents of at least one of the educational activities included in the study plan. The thesis is written by the student in an original way under the guidance of a supervisor. For theses having as supervisor a non-permanent professor in the Department, who has taught a course per assignment, a co-supervisor who is a professor of the Department is mandatory.

The request for assignment of the thesis must be submitted by the student directly to the teacher chosen as Supervisor through the esse3 site and submitted for the approval of the teacher himself. The request for assignment of the thesis subject of the final exam must be submitted by the student not before having acquired 60 credits.

Considering the required commitment (9 CFUs), the master's degree thesis can be:

- a. Review thesis: literature review work with critical bibliographic presentation;
- b. Project based thesis: work including a literature review part and a personal work of the candidate (theoretical, numerical and/or experimental), whose results are critically compared with the literature.

The thesis work must demonstrate the candidate's ability to deal with a topic of the chosen course of study with autonomy, synthesis and concreteness.

The evaluation criteria of the final exam take into account the complexity of the paper, the knowledge on the topic and the public speaking ability during the final exam.

The Supervisor supervises the drafting of the thesis from a methodological and scientific point of view and ensures that the activity carried out in the preparation of the thesis corresponds to the number of credits awarded.

For further details, see the "Regulations for the preparation of degree and master's degree theses" at the following link:

<https://www.ingegneria.uniparthenope.it/ingegneria/Reg-did>

#### 4.17.2 How the degree examination takes place

The final exam to obtain the degree is public.

A total time of at least 15 minutes is reserved for the presentation of each dissertation and the subsequent discussion.

The degree is assigned by the Committee in a confidential session at the end of the presentation of all candidates.

The final exam grade to achieve the degree and its proclamation are formalized by each Committee at the end of each session.

The degree grade is established by the Committee, which, in formulating it, will take into account the criteria formulated below.

The degree score is expressed using a 110-point scale and is formed by the sum of the basic grade expressed using a 110-point scale and the final exam grade expressed by the Committee, as indicated below.

The degree's minimum score is 66/110. The maximum grade is 110/110; the Committee may also award, only unanimously, honours.

The basic grade takes into account the average score obtained in the coursework (weighted on the educational credits). For the calculation of the basic grade, only courses that, within the student's educational path, require the verification of profit with a mark expressed on a 30-point scale.

The maximum number of points that can be attributed by the Commission of selection for the final exam is 8. A further possible increment of 3 points, with an overall maximum not exceeding 11, is considered to recognize the activities carried out within the ERASMUS program, as specified in point c).

The final exam grade must take into account both the student's career and the thesis.



The student's career is assessed according to the following criteria: quality of the course of study, duration of the university course, participation in further activities, as specified below.

- a. With reference to the quality of the study path, the scores that can be attributed are:
  - average score obtained in the coursework higher than or equal to 105 min 2 - max 4 points;
  - average score obtained in the coursework between 99 and 104 min 1 - max 3 points;
  - average score obtained in the coursework between 92 and 98 min 1 - max 2 points;
  - three or more honors 1 point.
- b. With reference to the duration of the training course, the scores that can be attributed are:
  - 2 points if the student has completed his studies the duration established by the resent rules.  
To award the relative bonuses, the duration of the Degree Course can be fictitiously increased by 6 months in the case of curricular internships carried out at structures outside the University and which have a corresponding number of credits not lower than 6. Similarly, considering the same reward, the duration of the Degree Course can be fictitiously increased by 6 months in the case of active participation to 80% of the meetings of the collegial bodies, of the advisory bodies, and of the University control and guarantee bodies as student representative (Academic Senate, Board of Directors, Department Board, Study Program Board, Department Joint Commission, Student Council, Evaluation Unit).  
The duration of the Degree Program for part-time students is double for each year of enrollment in this mode.
- c. With reference to participation in further activities, in the case of 12 CFUs earned abroad with the ERASMUS program, including CFUs earned for curricular internships carried out abroad, the maximum score that can be attributed is 3 points.
- d. Finally, the maximum scores attributable to the thesis are:
  - for a review thesis: max 2 points;
  - for an project based thesis: max 4 points.

The student who reaches 110/110 as an overall assessment can be awarded with honors. Honors are given unanimously by the Commission on a proposal from the tutor.

#### 4.18 Innovative Teaching

The Degree Program organizes specific moments to enhance synergy with companies, associations and professional orders, such as training in communication skills, soft-skills and linguistic skills.





## Study plan for students enrolled in the A.Y. 2023-2024

## Ingegneria Gestionale / Classe LM-31 | LM-33 / 2023-2024

YEAR	TEACHING	SSD	CFU	SEMESTER	TAF
------	----------	-----	-----	----------	-----

## ALL CURRICULA

I	Gestione dell'Energia	ING-IND/10	9	I	C   B
I	Energy Management	ING-IND/10	9	I	C   B
I	Controlli Automatici	ING-INF/04	9	II	B   C
I	Automatic Control Systems	ING-INF/04	9	II	B   C

Students can choose the language of the course (Italian or English)

## Italian Curriculum

I	Supply Chain Management	ING-IND/35	9	I	B   C
I	Qualità e sicurezza elettrica	ING-IND/33	12	I	C
I	Gestione della Produzione e della Qualità	ING-IND/17	9	II	B
I	Gestione dei sistemi energetici	ING-IND/09	9	II	C   B
II	Produzione Avanzata Sostenibile	ING-IND/17	9	I	B
II	Gestione degli Impianti Termotecnici	ING-IND/10	12	I	C   B
II	Tecnologie Energetiche Sostenibili	ING-IND/09	9	II	C   B
II	Automazione Industriale	ING-INF/04	9	II	C   B
II	Esame a scelta		6	I	D
II	Esame a scelta		6	II	D
II	Prova Finale + Tirocinio		9 + 3	II	E + F

## ELECTIVE COURSES – Italian Curriculum

II	Gestione della sicurezza industriale	ING-IND/22	6	I	D
II	Misure energetiche per l'industria	ING-IND/10	6	II	D
II	Sicurezza e Gestione dei Rischi dei Sistemi Industriali	ING-IND/17	6	II	D
II	Modelli Numerici per l'Ingegneria	ING-IND/10	9	I	D
II	Motori a combustione interna	ING-IND/09	6	I	D

Elective courses that are automatically approved – they can vary up to the beginning of the academic year

## Curriculum in English

I	Operations Management	ING-IND/17	9	I	B
I	Markets and Regulation of the Electric Power Systems	ING-IND/33	9	I	C
I	Supply Chain Management	ING-IND/35	9	II	B   C

I	Low carbon power plants economics and management	ING-IND/09	6	II	C   B
I	Environmental Control Techniques	ING-IND/10	9	II	C   B
II	Advanced and Sustainable Manufacturing	ING-IND/17	9	I	B
II	Entrepreneurship and innovation	ING-IND/35	9	I	B   C
II	Sustainable energy technologies	ING-IND/09	9	II	C   B
II	Industrial Automation	ING-INF/04	9	II	B
II	Elective Course*		9	I	D
II	Final Thesis + Internship		12 + 3	II	E + F

\* Each academic year elective courses are proposed by the scientific committee

### Enterprenurship and Innovation Management\*\*

I	Operations Management	ING-IND/17	9	I	B
I	Markets and Regulation of the Electric Power Systems	ING-IND/33	9	I	C
I	Supply Chain Management	ING-IND/35	9	II	B   C
I	Low carbon power plants economics and management	ING-IND/09	6	II	C   B
I	Environmental Control Techniques	ING-IND/10	9	II	C   B
II	Facility Management	ING-IND/17	9	I	B
II	Entrepreneurship lab	ING-IND/35	9	I	B   C
II	Green Tech Management	ING-IND/09	9	II	C   B
II	Automation Lab	ING-INF/04	9	II	B
II	Elective Course		9	I	D
II	Final Thesis + Internship		12 + 3	II	E + F

\*\* Access to this curriculum is based on a competitive examination

### ELECTIVE COURSES – English and Enterprenurship and Innovation Management Curricula

II	Electrotechnics for sustainable energy and mobility	ING-IND/31	9	I	B
II	Numerical Methods for Engineering	ING-IND/10	9	I	D

Elective courses that are automatically approved – they can vary up to the beginning of the academic year

### PREREQUISITES

The program does not provide prerequisites, however each course specifies the necessary competences to adequately follow it