



**Politecnico
di Torino**

ACADEMIC REGULATIONS
Master's degree programme
in
SYSTEMIC DESIGN

Department of Architecture and Design
Collegio di Architettura e Design

Academic Year **2026/2027**

*The English translation of this document is provided as a support to the student community and has no legal effects.
The Italian version shall constitute the sole authentic text and will be referred to for any legal matters.*

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Art. 1 – Specific learning objectives and career prospects

1.1 Specific learning objectives

Educational Objectives

The educational objectives of the Master's degree programme are the following:

- to provide knowledge and foster interdisciplinary group work, coordinated by the faculty members of the individual laboratories, in order to define the system of relationships activated by a product—both in terms of the resources it requires and the outputs it generates;
- to train designers capable of shaping and managing the industrial product design process in full, with the aim of achieving “zero emissions”;
- to train designers who combine a strong interest in innovation with a systemic vision of the production context, placing people at the centre of the design process.

Graduates in Systemic Design considers ecological issues related to products and environmental protection as a priority. These issues are increasingly addressed by national and international regulations—as essential and cross-cutting, regardless of the specific design themes. Graduates can design both individual systems and overarching networks of interconnected systems operating within a given territory.

Thanks to this training, graduates are also equipped to engage with professionals from other fields (industrial production, marketing, economics, etc.) and contribute to the evolution of these sectors by promoting the development of open industrial systems as well as new sustainable products and product-service systems.

The programme is structured into four independent multidisciplinary thematic laboratories (corresponding to the first and second semesters of each academic year), each dedicated to a specific topic.

To earn the Master's degree in SYSTEMIC DESIGN, students are required to attend two core laboratories:

- PRODUCT COMPONENTS
- OPEN SYSTEMS

To complete the programme, students must also choose two additional laboratories:

- INNOVATION
- VIRTUAL DESIGN

1.2 Career prospects

The Master's degree programme aims to train a variety of professional profiles. The career prospects and the main functions and competencies associated to each profile are illustrated below.

Professional profile	Main functions and competencies
Systemic designer	Functions: Systemic designers are capable of working collaboratively with all the professionals involved in the comprehensive design of an open industrial system, from the initial concept to implementation. Competencies: They play an active role in innovation processes related to intermediate and final products, as well as the product life cycle, within a context of socio-cultural, production, consumption and market transformations. Systemic designers are able to fully shape and manage the design process with the goal of achieving "zero emissions". This means they can envision new production and consumption scenarios based on a systemic approach, where the outputs of one production chain become the inputs of another. Potential employers: They primarily work in design support roles within business consortia, private companies,

	and public institutions.
Complex product designer	Functions: They are able to independently manage aspects related to the sustainable design of complex industrial products, and to work within multidisciplinary teams to address issues of technical, economic, and production feasibility, as well as commercialisation. Competencies: They can fully shape and manage the industrial product design process, with particular focus on product eco-compatibility and environmental protection. They are also skilled in designing complex products aimed at sustainable development, supporting key and innovation-driven sectors. These competencies also extend to production, communication and distribution strategies that help define the company identity; design interventions on the physical contexts of product production and use; multimedia communication; the design and creation of communication artefacts and the development of physical models, prototypes, and animated virtual models. Potential employers: They typically work as freelance professionals, in the technical departments of manufacturing companies, in professional firms and in public institutions.

1.3 Professional profiles (ISTAT codes)

With reference to the list of professional profiles classified by ISTAT (Italian National Institute of Statistics, <https://www.istat.it/en/>), graduates from this Master's degree programme can work as:

ISTAT code	Description
2.5.5.1.4	Creatori artistici a fini commerciali (esclusa la moda)

Art. 2 – Admission requirements

Italian regulations on enrolment in Master's degree programmes require Italian universities to check that applicants meet the following requirements:

- have a **three-year Bachelor's degree or university diploma**, or **other educational qualification obtained outside Italy** and recognized as suitable for admission;
- meet specific curricular requirements;
- have an **academic performance considered suitable** for admission.

The provisions issued by the Academic Senate, along with the implementing regulations adopted by the competent academic bodies, establish that for students coming from certain academic backgrounds and with specific academic results, the curricular requirements and the academic performance considered suitable for admission are considered automatically fulfilled. For all other applicants, a detailed evaluation must be carried out by an appointed evaluator.

This evaluation may result in admission, non-admission or conditional admission.

Admissions to the Master's degree programme under the responsibility of the Collegio di Architettura e Design is allowed in first semester and in second semester.

CURRICULAR REQUIREMENTS

As far as curricular requirements are concerned, applicants must have a Bachelor's degree or a three-year university diploma, or an educational qualification obtained outside Italy and recognized as suitable for admission. In addition, they must have gained specific knowledge and competencies during their previous academic path (credits in specific Scientific Disciplinary Fields).

In particular, applicants must have earned:

- minimum 40 credits earned in the following Scientific Disciplinary Fields (settori scientifico-disciplinari): CEAR-08/C (ICAR/12), CEAR-08/D (ICAR/13), CEAR-10/A (ICAR/17), CEAR-11/A (ICAR/18), CHEM-06/A (CHIM/07), CEAR-06/A (ICAR/08), IIND-07/B (ING-IND/11), IMAT-01/A (ING-IND/22);
- minimum 60 credits earned in the following specific Scientific Disciplinary Fields (settori scientifico-disciplinari): BIOS-05/A (BIO/07), BIOS-03/B (BIO/08), CEAR-08/D (ICAR/13), CEAR-09/A (ICAR/14), CEAR-09/C (ICAR/16), CEAR-10/A (ICAR/17), CEAR-11/A (ICAR/18), CEAR-03/C (ICAR/22), IIND-03/B (ING-IND/15), IIND-04/A (ING-IND/16), IIND-03/C (ING-IND/21), IMAT-01/A (ING-IND/22), IINF-03/A (ING-INF/03), IINF-04/A (ING-INF/04), IINF-05/A (ING-INF/05), ARTE-01/B (L-ART/02), ARTE-01/C (L-ART/03), PEMM-01/B (L-ART/06), MATH-03/A (MAT/05), MEDS-24/B (MED/42), PHIL-02/A (M-FIL/02), PSIC-01/A (M-PSI/01).

The credits of the Scientific Disciplinary Fields found both in the first group and in the second group are primarily counted for the first group. The remaining credits are counted for the second group. Therefore, the credits of a course can be counted partly to reach the minimum number of credits of both groups.

Applicants who lack less than 10 credits can be admitted to the programme by the Academic Advisor of the degree programme. For applicants who lack more than 10 credits, the evaluation will be subject to the final approval of the Coordinator or the Vice coordinator of the degree programme.

Applicants who do not meet the curricular requirements are required to make up for their unfulfilled curricular requirements (missing credits) before enrolment, by means of:

- **enrolment in single courses in order to make up for unfulfilled curricular requirements:** this is possible for students who need to earn up to a maximum of 60 credits. Students who enrol in single courses for this reason are allowed to include in their Personal Study Plan exclusively the courses assigned by the evaluator.
or else,
- **credit transfer at Bachelor's level:** this is possible for students who need to earn more than 60 credits. In this case, students need to enrol in the Bachelor's degree programme that offers the credits in the specific Scientific Disciplinary Fields (core subjects and commentary subjects) required for admission to this Master's degree programme.

SUITABLE ACADEMIC PERFORMANCE

Applicants must have a suitable academic performance and an English language certificate (B2 level or above, as defined by the Common European Framework of Reference for Languages: Learning, Teaching, Assessment - CEFR).

The academic performance will be assessed as follows.

1) Applicants from Politecnico di Torino

- a) Applicants can be admitted to the programme if they earned their Bachelor's degree in:
- less than or in 4 years ⁽¹⁾ and the weighted average grade ⁽²⁾ of exams is greater than or equal to 27/30;
 - more than 4 years but less than 5 years ⁽¹⁾ and the weighted average grade ⁽²⁾ of exams is greater than or equal to 28/30.

The weighted average grade is calculated on all accrued course credits (graded on a scale of 30) counting towards the achievement of the Bachelor's degree, after having subtracted the worst 28 credits.

The duration of the Bachelor's path is calculated on the basis of the number of academic years in which the applicant has been enrolled at the university, starting from the first enrolment in the Italian university system:

- for full-time students: the duration of the Bachelor's path is equivalent to the number of academic years of enrolment.
- for part-time students: each year of enrolment is counted as half-year.
- for full-time students taking part in the "Dual Career" programme: each year of enrolment is counted as half-year, as for part-time students.

In the event of credit transfer, the duration of the Bachelor's path must be increased proportionally to the number of credits that have been recognized by Politecnico (10-60 CFU =1 year, etc.). The worst 28 credits must be subtracted proportionally to the number of validated credits.

(1) Applicants must have graduated by the end of the December Graduation Period

(2) The weighted average is calculated as follows: $\sum(\text{grade} \times \text{credits}) / \sum \text{credits}$

- b) admissions by merit-based evaluation of the Evaluation Committee

Applicants who do not have the above-mentioned average must take and pass an admission test (merit-based evaluation). The details of this evaluation are available in the section below "Admission test and validity".

2) Applicants from other Italian universities

Applicants who have a Bachelor's degree awarded by another Italian university must have a weighted average grade of all the exams $\geq 24/30$. They must also take the admission test (merit-based evaluation) referred to in the next paragraph. The weighted average grade ($\sum(\text{grade} \times \text{credits}) / \sum \text{credits}$) is calculated on all accrued course credits (graded on a scale of 30) counting towards the achievement of the Bachelor's degree, after having subtracted the worst 28 credits.

Admission test and validity

Applicants are required to take a written test to demonstrate their ability to critically reflect on the work carried out in academic, corporate, or professional settings, as well as their knowledge and skills in the following thematic areas:

- Representation/Drawing
- Design Methodology and Environmental Sustainability
- Design Theory and History
- Digital Culture
- Production Technologies and Materials

Students who pass the admission test and need to make up for their unfulfilled academic requirements will be admitted to the following academic year—provided that they have fulfilled all the missing academic requirements and that the degree programme is activated.

3) Applicants with a non-Italian educational qualification

To be admitted to Politecnico Master's degree programmes, applicants must have an academic qualification awarded by an accredited/recognized foreign university, earned after completing at least 15 years of total education (including primary school, secondary school and university).

Applicants who have attended a university programme lasting five or six academic years (different from the 3+2 system) without completing it must still meet the minimum requirement of 15 years of total education (of which at least 3 years at

university level) and they must have earned at least 180 ECTS credits or equivalent. Pre-university courses or foundation years cannot be counted towards the minimum number of credits or the minimum numbers of years of total education mentioned above.

In addition to having an adequate academic background and certified knowledge of the English language (minimum B2 level), students applying to a degree programme delivered in Italian or partially taught in Italian must also have an Italian language certificate (minimum B2 level), as defined by the Common European Framework of Reference for Languages (CEFR), as an admission requirement.

The applicant's academic performance and the consistency between the degree programmes offered by Politecnico and the applicant's previous academic background are assessed by the professors designated by Coordinator of the Collegio. The evaluation is carried out on the Apply@polito platform under the section called "Applicants with a non-Italian qualification." A positive evaluation (offer of admission) allows applicants to enrol in the programme only in the academic year in which the application has been submitted. Admitted applicants who do not complete the enrolment process within the deadlines are required to apply again to the programme in the next academic years.

More information is available at <https://www.polito.it/en/education/applying-studying-graduating/admissions-and-enrolment/master-s-degree-programmes>

Art. 3 – Programme curriculum

3.1 Programme overview

The current production model is based on the extraction of resource at global level, on the identification of products and their continuing, on relentless competition and poor management of waste—a sequence of interconnected actions that defines a “linear” model of operation.

In the future, it will be essential to adopt a new approach to design and production processes in order to achieve sustainable products. The methodology of systemic design operates in harmony with nature, where the output of one system becomes the input of another system.

This means designing flows of materials and energy between systems that:

- aim for zero emissions,
- create a new economic and production model,
- foster a community that is strongly interconnected and consciously rooted in its territory.

Industries and organisations with a strong interest in these topics are actively involved in the educational activities.

Faculty members from different disciplines collaborate within the laboratories to achieve the shared learning objectives, alternating between discipline-specific sessions and collective design discussions.

The design exercise, which is jointly defined and agreed upon by all instructors involved in the laboratory, is subject to a shared evaluation process.

3.2 Organization of educational activities

The list of courses (compulsory and optional), curricula, possible organization of courses into modules, any pre-requisites and exclusions and the list of the faculty members responsible for the courses are available at: https://didattica.polito.it/pls/portal30/sviluppo.offerta_formativa_2019.vis?p_a_acc=2026&p_sdu=81&p_cds=472

The list of the Scientific Disciplinary Fields (Settori Scientifico Disciplinari) for each activity (specific subjects and complementary subjects) is available in Annex 1 to the present Regulations.

Art. 4 - Student career

The Student Guide is published on the Teaching Portal every year before the beginning of the academic year. There is a specific Student Guide for each Master's degree programme. The Student Guide is available on the [web site](#) of the degree programme.

It contains information and deadlines on:

- academic calendar;
- Personal Study Plan and Annual Personal Study Plan;
- free choice credits;
- internships;
- tuition fees;
- dual career;
- classes and exams;
- class delivery;
- foreign language learning;
- studying abroad/mobility programmes;
- exam rules;
- transfers in/out and internal transfers;
- interruption, suspension, withdrawal, forfeiture;
- credit transfer.

Art. 5 - Final Examination

For the final examination students must develop an original and interdisciplinary research project under the supervision of a faculty member (it is recommended to involve co-supervisors from other disciplinary fields), and they must present it to the Graduation Examining Committee.

The final examination represents an educational milestone of the Master's degree programme. It involves the development of a thesis, which must be independently produced by the student under the guidance of a Supervisor. The thesis work typically requires the application of knowledge acquired in multiple courses and laboratories, the integration of additional elements, and the ability to propose innovative perspectives. The thesis topic and related activities are agreed upon with a faculty member of Politecnico di Torino (Thesis Supervisor). Students can work at their thesis project at Politecnico departments and laboratories, at other Italian or international universities, external research centres, as well as companies or professional firms with which cooperation agreements are in place.

Students are required to present and defend their thesis before a Graduation Examining Committee. Students must demonstrate their ability to work independently, mastery of the subject matter and the capacity to clearly and concisely communicate the content and engage in discussion.

The thesis may be written and presented in English.

The workload for the thesis corresponds to 24 ECTS credits.

Objectives

- The thesis serves as a liaison between Politecnico, students and the world of work.
- The thesis is an evolving process: the topic should be framed within broader research projects, allowing students to identify their own area of work and enabling supervisors to further develop research themes through thesis activities.
- Guiding students in choosing the thesis topic: students are recommended to examine and discuss multiple topics with their supervisor, chosen either from a list of topics proposed by the supervisor or suggested by the student. The supervisor may be selected from among the professors and researchers teaching in the Master's degree programme in Systemic Design or the external instructors who teach courses in the same programme. Professors and researchers from other degree programmes within the Department of Architecture and Design at Politecnico di Torino may also be chosen as Supervisors.

Students must submit their thesis application and request the thesis topic online through a dedicated procedure available in their personal page on the Teaching Portal, under the section entitled "Thesis," in compliance with the Graduation Periods deadlines published in the Student Guide – Thematic Calendar Section.

For each proposed topic, it is advisable to assess:

- a) the nature of the thesis, whether research-based or design-oriented;
- b) the opportunity or need for a co-supervisor (in the case of interdisciplinary theses).

Characteristics

- originality;
- methodological development;
- relevance as a design-driven project output.

Evaluation Criteria

Assessment is based on several key factors, including (but not limited to):

- consistency with the learning objectives of the degree programme;
- methodological soundness of the research;
- depth of analysis of the thematic context;
- advancement in disciplinary research and/or design development;
- potential practical impact and real-world applications;
- ability to synthesise and present effectively within the allotted time for discussion.

The final grade is determined by the Graduation Examining Committee, which will consider the overall weighted average of all exam grades on a 110-point scale, considering:

- quality of the thesis work (commitment, autonomy, methodological rigor, relevance of results achieved, etc.);
- thesis oral defence (clarity in presentation, etc.);
- outstanding results achieved during the academic path (number of honours, experience at foreign universities or research centres, extracurricular activities, participation in Student Team, etc.).

Honours (“cum laude”) may be awarded upon reaching a score of 110, at the committee’s discretion and by a qualified majority, i.e., at least two-thirds of the committee members.

The committee may grant the dignity of publication (dignità di stampa) only if the final grade is 110 with honours and the committee’s decision is unanimous.

Should the Committee consider the thesis particularly valuable in terms of subject matter, content, and design implications, it may propose its publication on the website of the degree programme in a reduced format (abstract of no less than three A4 pages).

More Information and Deadlines:

- Student Regulations
- Student Guide

Diploma Supplement:

In compliance with article 11, paragraph 8, of Ministerial Decrees No. 509/1999 and 270/2004. Politecnico di Torino issues the Diploma Supplement, a document that can be attached to a higher education qualification. It is designed to improve the transparency of international qualifications, as it provides the description of the curriculum successfully completed by the student. This certificate follows the European model developed by the European Commission, the Council of Europe and UNESCO – CEPES: it is issued in two languages (Italian-English) and it is composed of approximately 10 pages.

More information at <https://www.polito.it/en/education/applying-studying-graduating/academic-experience/certificates-and-other-documents>

Art. 6 - References

6.1 Student Regulations

The [Student Regulations](#) define the rights and responsibilities of students and set out the administrative and disciplinary rules that all students enrolled in a degree programme or in a single learning activity at Politecnico must abide by.

6.2 Other Regulations

Particular aspects of students' academic progress are governed by specific Regulations or Calls for Applications published on its website.

In particular:

- The [Tuition Fee Regulations](#) specify the annual tuition fees that students must pay. The procedure for requesting a tuition fee reduction is explained in a dedicated guide.
- The University Regulations on Funds for Student Mobility Abroad outline the principles and rules for awarding and disbursing mobility grants. Standard procedures apply to all types of mobility programmes with unified Calls for Applications published twice a year at <https://www.polito.it/en/education/applying-studying-graduating/studying-abroad>
- The [Code of Ethical Conduct](#) also applies to students.

Annex 1 – Tabella delle Attività Formative

Attività	Ambito Disciplinare	Settore	SSD corrisp	cfu	
				min	max
Attività caratterizzanti	Culture, metodologie e pratiche del design	CEAR-08/D - Design	ICAR/13	30	42
	Discipline tecnologiche e ingegneristiche	CEAR-08/C - Progettazione tecnologica e ambientale dell'architettura CEAR-09/C - Architettura degli interni e allestimento CEAR-10/A - Disegno IIND-02/A - Meccanica applicata alle macchine IINF-05/A - Sistemi di elaborazione delle informazioni	ICAR/12 ICAR/16 ICAR/17 ING-IND/13 ING-INF/05	6	12
	Scienze umane, sociali, psicologiche ed economiche	ARTE-01/C - Storia dell'arte contemporanea CEAR-03/C - Estimo e valutazione CEAR-11/A - Storia dell'architettura ECON-06/A - Economia aziendale ECON-07/A - Economia e gestione delle imprese GSPS-06/A - Sociologia dei processi culturali e comunicativi PHIL-04/B - Filosofia e teoria dei linguaggi	L-ART/03 ICAR/22 ICAR/18 SECS-P/07 SECS-P/08 SPS/08 M-FIL/05	12	24
Attività affini	Attività formative affini o integrative	AGRI-06/B - Chimica agraria AGRI-07/A - Scienze e tecnologie alimentari BIOS-05/A - Ecologia CEAR-02/A - Ingegneria sanitaria- ambientale CEAR-09/A - Composizione architettonica e urbana CEAR-09/B - Architettura del paesaggio GSPS-08/B - Sociologia dell'ambiente e del territorio IBIO-01/A - Bioingegneria ICHI-02/B - Chimica industriale tecnologica PSIC-03/B - Psicologia del lavoro e delle organizzazioni	AGR/13 AGR/15 BIO/07 ICAR/03 ICAR/14 ICAR/15 SPS/10 ING-INF/06 ING-IND/27 M-PSI/06	12	18
Altre attività	A scelta dello studente	-	-	12	18
	Per la prova finale	-	-	18	30
	Abilità informatiche e telematiche	-	-	-	-
	Altre conoscenze utili per l'inserimento nel mondo del lavoro	-	-	-	-
	Tirocini formativi e di orientamento	-	-	0	12
	Ulteriori conoscenze linguistiche	-	-	0	6
	Per stages e tirocini presso imprese, enti pubblici o privati, ordini professionali	-	-	-	-