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POLITECNICO DI MILANO

THE RECTOR

HAVING REGARD to Italian Law No 168 of 09.05.1989, "Establishment of the Ministry of Universities and Scientific and Technological Research" and subsequent amendments;

HAVING REGARD to Italian Presidential Decree No 382 of 11.07.1980 "Reorganization of university teaching, relative training band and organizational and teaching experimentation", and subsequent amendments;

HAVING REGARD to Italian Law No 476 of 13.08.1984 "Provisions on scholarships and PhD programmes in universities", and subsequent amendments;

HAVING REGARD to Italian Law No 241 of 07.08.1990, "New rules on administrative procedures and the right of access to administrative documents", and subsequent amendments;

HAVING REGARD to Italian Law No 210 of 03.07.1998 "Rules for the recruitment of researchers and full university professors", and subsequent amendments;

HAVING REGARD to Italian Decree-Law No 105 of 09.05.2003 "Urgent provisions for universities and research institutions", converted, with amendments, into Italian Law No 170 of 11 July 2003, and subsequent amendments;

HAVING REGARD to Italian Law No 296 of 27.12.2006, "Provisions for the formation of the annual and multi-annual State budget (2007 Budget Law)", and subsequent amendments;

HAVING REGARD to Italian Law No 240 of 30.12.2010, "Regulations on the organization of universities, academic staff and recruitment, as well as delegation to the Government to encourage the quality and efficiency of the university system", and subsequent amendments, and in particular Article 19 "Provisions on PhD programmes", and subsequent amendments;

HAVING REGARD TO Italian Leg. Decree No 33 of 03.14.2013, "Reorganization of the regulations concerning the right of civic access and the obligations of publicity, transparency and dissemination of information by public administrations", as amended by Italian Leg. Decree No 97 of 25.05.2016 "Revision and simplification of the provisions on prevention of corruption, publicity and transparency, correcting Italian Law No 190 of 6 November 2012 and Italian Legislative Decree No 33 of 14 March 2013, pursuant to Article 7 of Italian Law No 124 of 7 August 2015 on the reorganization of public administrations", and subsequent amendments; HAVING REGARD to the General Data Protection Regulation - Regulation (EU) 2016/679 of the European Parliament and of the Council of 27.04.2016;

HAVING REGARD to Italian Law No 76 of 20.05.2016 "Regulation of same-sex civil partnerships and regulation of cohabitation", and subsequent amendments;

HAVING REGARD to the Decree of the Ministry of Universities and Research No 226 of 14.12.2021 "Regulation on the procedures for the accreditation of PhD sites and courses and criteria for the establishment of PhD programmes by accredited bodies";

HAVING REGARD to the current Statute of the Politecnico di Milano;

HAVING REGARD to the current General University Regulations;

HAVING REGARD to Rector's Decree No 2210 of 12.05.2015 by which the Regulations on PhD Programmes at the Politecnico di Milano was issued, and subsequent amendments;

HAVING ACKNOWLEDGED the favourable opinions expressed by the Academic Senate and the Board of Governors in their respective meetings of 19 and 27 June 2023 concerning the amendments made to the Regulations on PhD Programmes at the Politecnico di Milano;

WHEREAS it is necessary to proceed with the enactment of the Regulations on PhD Programmes at the Politecnico di Milano with the approved amendments;

HEREBY DECREES

Article 1 1) For the reasons mentioned in the introduction, the Regulations on PhD Programmes at the Politecnico di Milano, issued by Rector's Decree No 2210 of 12.05.2015 and amended by Rector's Decree No 159 of 11 January 2018, is further amended as reported below in the regulatory text, which is an integra part of this decree. Changes made to the regulatory text are marked in bold italics .	

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Regulations on PhD Programmes at the Politecnico di Milano

TITLE I

General Rules

Article 1 Purpose and scope

- 1) The Politecnico di Milano adheres to the European Charter for Researchers, issued by the Commission of the European Communities with recommendation of 11.03.2005. The Charter is transposed by these Regulations for the aspects falling within its competence, and constitutes an annex thereto.
- 2) These Regulations govern the general criteria for the accreditation, activation and operation of the PhD programmes at the Politecnico di Milano, pursuant to Article 19 of Italian Law No 240 of 30.12.2010 and the relevant Ministerial Decrees for their implementation.
- 3) These Regulations also govern the organization and functioning of the PhD School of the Politecnico di Milano, access to PhD programmes, training pathways, the allocation and management of scholarships, and the career of PhD students, from enrolment to graduation.

TITLE II PhD Programmes

Article 2

Requirements for the accreditation of PhD programmes

- 1) PhD programmes are offered on the basis of the following general requirements:
 - a) no less than 3 scholarships for each PhD programme;
 - b) sufficiently broad scientific themes and related designations and with reference to the content of a scientific-disciplinary field or an aggregation of several fields;
 - c) presence in the PhD Faculty of an adequate number of professors and researchers in the scientific- disciplinary fields of reference of the programme;
 - d) availability of adequate financial resources and specific operational and scientific facilities for the programme and for the PhD students' study and research activities;
 - e) identification of a Coordinator responsible for organizing the programme and of a PhD Faculty meeting the scientific and curricular requirements laid down by the Ministry for Universities and Research (MUR) in Italian Ministerial Decree No 226 of 14.12.2021 and subsequent amendments and additions;
 - f) possible collaborations with public and private, Italian or foreign entities that allow PhD students to gain experience in the professional setting;
 - g) possible presence of a Reference Committee for each individual programme, composed of qualified individuals from the social, economic and cultural context;
 - h) the presence of training pathways oriented towards the pursuit of highly qualified research activities in private entities, public bodies and universities and which encourage study periods abroad;
 - i) promotion of internationalization;
 - j) organization of public seminars for the dissemination of PhD students' research results.
- 2) The evaluation of the requirements is carried out by the University Assessment Commission in collaboration with the PhD School and in consideration of the quality assurance process of the design and management of PhD training in accordance with the Standards for Quality Assurance in the European Higher Education Area (EHEA).

Article 3 Activation of PhD programmes

- 1) PhD programmes are activated subject to accreditation by the MUR, in accordance with Articles 3, 4 and 5 of Italian Ministerial Decree No 226 of 14.12.2021
- 2) The request to activate a PhD programme is made by a Department or a group of Departments and is approved by the PhD School Board, the Academic Senate, the Board of Governors, as far as they are concerned, and the Assessment Commission.
- 3) In the activation proposal, the proposing Departments must ensure that the programme is maintained for at least three consecutive cycles, with a commitment of at least 9 scholarships over the three cycles.
- 4) Newly-established PhD programmes do not participate in the allocation of scholarships financed from University funds in the first three years. In the case of special initiatives, in support of themes dedicated to interdisciplinarity or innovation, the University Bodies may depart from this limitation.
- 5) In the event of activation of an interdepartmental PhD programme, the Department which is the administrative base of the programme must be indicated.

Article 4

Teaching structure and educational content of PhD programmes

- 1) PhD programmes at the Politecnico di Milano last no less than three years. The duration of the programme may be increased in the case of international agreements, conventions with companies or organisations, or if the PhD Faculty deems it appropriate in view of the specific characteristics of the activities and/or the research topic. The educational activities must include at least 18 months at the Politecnico di Milano; this period may be reduced to 12 months in the case of a joint PhD. Any reduction in the minimum length of time spent at the Politecnico di Milano must be explicitly authorized by the PhD Faculty of the programme concerned, in view of the specific nature of individual PhD paths.
- 2) The training project for each PhD programme must include:
 - a) at least 20 ECTS credits of PhD level teaching;
 - b) at least 2 years of full-time activity to be devoted to research and development of the PhD thesis;
 - c) the presence of at least one training course entirely in English.
 - The PhD programme can be divided into Areas, defined as curricula pursuant to Article 6 para 2 of Italian Ministerial Decree 226/2021. ECTS credits acquired by attending courses at other universities, summer schools and cultural institutions are recognized by the PhD Faculty, which authorizes attendance and verifies and evaluates the results. Language training programmes (Italian language and culture, English or other languages) may be provided.
- 3) The PhD Faculty for each PhD programme defines the Training Project, establishes any increases in the minimum number of credits that each PhD student must acquire, the different types of teaching and cultural activities, of different value (lectures, seminars, project workshops, laboratories) of the PhD programme, and publishes them in advance.
 - The PhD Faculty may also request that individual PhD students acquire additional credits if the acquisition of such credits is necessary to complete their preparation in fields essential to their research projects.
 - PhD programmes must explicitly state in their training programmes the languages in which the activities are carried out.
- 4) The teaching activity, scientific or business tutoring and thesis supervision, certified and carried out by university professors and researchers as part of PhD programmes, contributes to the fulfilment of the institutional obligations referred to in Article 6 of Italian Law No 240 of 30.12.2010, according to the procedures established by the "Regulations for the conferral of teaching and teaching support positions" of the Politecnico di Milano.

TITLE III Organization of the PhD School

Article 5

Organization and functioning of the PhD School

- 1) The PhD School of the Politecnico di Milano has the task of coordinating courses and managing joint activities. The tasks of the PhD School are defined in Article 30 of the Statute of the Politecnico di Milano and in particular in Article 30 para 2). The School therefore:
 - a) defines the guidelines for the University's PhD programmes;
 - b) promotes and coordinates joint and representative activities;
 - c) defines common quality criteria and parameters, shared by the University, for the evaluation of PhD students.
- 2) The bodies of the PhD School of the Politecnico di Milano are: the School Director, the Council, the School Board and the Reference Committee. The PhD School makes use of Administrative Offices identified by specific resolution, in order to ensure the performance of administrative and management activities.
- 3) The Director is a full-time full professor of the Politecnico di Milano, elected by the PhD Programme Coordinators.

The Director:

- a) represents the School to the public and to the other bodies of the University;
- b) convenes and chairs the Council, the Faculty and the Reference Committee;
- c) promotes the policy for the quality and certification of PhD programmes, also through the Reference Committee and external auditors;
- d) handles communication and promotion of the PhD.

The Director may delegate specific tasks to members of the Council and may identify a Deputy Director to represent him/her in his/her absence or impediment.

The Director cannot be a PhD Programme Coordinator, a Director or Deputy Director of a Department, Dean or Vice Dean of a School, Coordinator of a Study Programme Board, or a Member of the Assessment Commission. The Director holds office for three years and may be re-elected once.

4) The Council is composed of the Director, who chairs it, four PhD programme coordinators (elected by the coordinators of all active programmes) and the heads of the relevant administrative offices. Secretary duties are assigned to one or more persons from the above-mentioned offices. The four elected Coordinators remain in office for three years and may be re-elected once.

The Council carries out the following tasks:

- a) supervises the conclusion of agreements with external parties and international cooperation agreements, subject to the approval of the School Board in the case of conventions and agreements of general interest;
- b) manages the calendar of PhD programmes (activation, calls for applications, admission examinations, passing from one year to the next, final examinations, opening ceremonies and awarding of qualifications);
- c) coordinates and promotes interdisciplinary initiatives between different PhD programmes;
- d) promotes the procurement of resources at a centralized level;
- e) supports PhD Programme Coordinators in preparing national and international projects;
- f) proposes the revision and updating of these Regulations;
- g) exercises any other functions assigned by the School Board.

5) The School Board is composed of the Director, who chairs it, the PhD programme coordinators, PhD student representatives enrolled in the active PhD programmes (up to a maximum of four), and the heads of the relevant administrative offices. Secretary duties are assigned to one or more persons from the above-mentioned offices.

PhD student representatives shall remain in office as long as they remain active PhD students at the Politecnico di Milano, and in any case for no longer than two years. Those entitled to vote and to stand as a candidate are all PhD students enrolled at the Politecnico di Milano. Elections for PhD student representatives are called by the Rector in conjunction with student elections. In the event that one of the four PhD student representatives should leave office, he or she shall be replaced by the first candidate not elected in the election results. In the event that there are no candidates not elected in the first round, the replacement will be elected by indirect election from among the PhD student representatives in the various PhD Programmes.

The School Board carries out the following tasks:

- a) it acts as a link between the School, the Departments and the PhD Faculty;
- b) proposes the means of distribution of resources for scholarships and for the operation of PhD programmes to the Academic Senate;
- c) approves the conclusion of conventions with external parties and international cooperation agreements;
- d) approves the arrangements for coordinating the training activities of PhD programmes;
- e) defines and approves the manifesto for PhD-level transversal and transferable skills teaching, which is organized by the PhD School;
- f) approves the Training Projects of each PhD programme and proposes their activation to the Academic Senate:
- g) approves the calendar for PhD programmes (activation, calls for applications, admission examinations, passing from one year to the next, final examinations, opening ceremonies and awarding of qualifications);
- h) proposes any amendments to these Regulations;
- i) proposes the composition of the Reference Committee;
- i) exercises any other functions assigned by the University's academic bodies.
- 6) The Reference Committee, an advisory and supporting body of the PhD School, is made up of qualified individuals from the social, industrial, economic, cultural and academic context outside the Politecnico di Milano and plays the main role of liaison between the PhD School and the external national and international context.

The members are appointed by the Rector and approved by the Academic Senate, on the proposal of the PhD School Board. The Reference Committee is renewed or reconfirmed every three years.

Article 6

Teaching, administrative and coordination bodies for PhD programmes

- 1) The bodies of the PhD programme are the PhD Faculty and the Coordinator.
- 2) The PhD Faculty is responsible for the planning and implementation of the PhD programme. It must be composed, taking into account, where possible, gender balance, in accordance with Italian Ministerial Decree 226/2021, and must not in any case exceed 30 individuals.

The PhD Faculty is renewed or confirmed each year by the Board of the Department where the programme is run. The Faculty thus established monitors and coordinates the activities of PhD students of all active cycles during its term of office, taking over this task from the previous Faculties. The Departments identify the procedures for submitting and accepting applications from professors and researchers to the PhD Faculty and from PhD student representatives to the Faculty.

The PhD Faculty is responsible for the Training Project and the teaching and administrative activities relating to the PhD programme.

The Departments ensure that PhD students are represented on the PhD Faculty to deal with teaching problems.

- 3) The Coordinator chairs the PhD Faculty and has the following tasks:
 - a) coordinates the preparation of the annual Training Project and the teaching and cultural activities of the PhD programme;
 - b) organizes the general training activities of the PhD programme in agreement with the Directors of the Departments involved, with regard to the resources made available by the Departments themselves;
 - c) authorizes PhD students' off-site activities and the use of funds available in the Departments to support the PhD and PhD students' activities.

The Coordinator is elected by the PhD Faculty from among the full-time, full professors who are members of the Faculty; in the event of a lack of candidates from full professors, the eligibility to stand for election is extended to full-time, associate professors, provided they meet the requirements laid down by

Italian Ministerial Decree No 226 of 14.12.2021 and subsequent amendments and additions. The convening of the PhD Faculty for the election of the Coordinator is carried out by the outgoing Coordinator or, in case of absence or impediment, by the Dean of the Faculty. The Coordinator remains in office for a three-year term and may be re-elected for a further three-year term once. If a Coordinator does not complete a three-year period, a new Coordinator will be elected for the remainder of the term of office (residual period) in accordance with the University's General Regulations.

The Coordinator may appoint one or more Deputy Coordinators to replace him/her in case of absence or impediment.

TITLE IV Access to PhD programmes and scholarships

Article 7 Access to PhD programmes

- 1) Admission to PhD programmes at the Politecnico di Milano is by one of the following methods: Call for applications pursuant to Article 8 of Italian Ministerial Decree No 226 of 14.12.2021; additional calls; admissions outside the call; and transfers.
- 2) The call for applications for admission to PhD programmes pursuant to Article 8 of Italian Ministerial Decree No 226 of 14.12.2021 is issued on an annual basis to allocate places with general and thematic scholarships (i.e. linked to the development of a specific research topic). The call for applications, drawn up in Italian and English, is issued by the Rector of the Politecnico di Milano and advertised for at least 30 days electronically on the website of the PhD School, on the European website Euraxess and on that of the Ministry. It must indicate:
 - a) the PhD programmes activated, with an indication of the training courses covered in the cycle (if the course includes specific internal curricula, called Areas) and of the other subjects involved (if they are PhD programmes in agreement or in consortium);
 - b) the maximum number of applicants with and without scholarships to be admitted to each PhD programme;
 - c) the number and amount of the scholarships, the amount of the bonus for months abroad and the maximum number of months for which this bonus can be paid;
 - d) for each PhD programmes, any thematic scholarships and award criteria;
 - e) compulsory contributions to be paid by PhD students;
 - f) the deadline and methods for submitting applications;
 - g) the general and specific subjective requirements required;
 - h) the methods for evaluating applications for admission, qualifications and curriculum;
 - i) the procedures for enrolling in the programmes;
 - l) the procedures for graduating from the PhD.
- 3) The Politecnico di Milano issues additional calls for applications with different timing, deadlines and start dates from those provided for in Article 8 of Italian Ministerial Decree No 226 of 14.12.2021 for themed scholarships financed predominantly or entirely by Italian or foreign companies or research bodies, on the basis of agreements between departments and companies or bodies that envisage the effective sharing of training and research activities, the fair sharing of costs and the methods for regulating forms of financial support.

These calls are issued by the Rector and managed by the departments where the PhD programmes concerned are run. They must indicate:

- a) the number of scholarships, the number of positions with and without scholarship and the specific topics;
- b) fees to be paid by PhD students;
- c) the deadline and methods for submitting applications;
- d) the general and specific subjective requirements required;
- e) the methods for evaluating applications for admission, qualifications and curriculum;
- f) the procedures for enrolling in the programmes;
- g) the procedures for graduating from the PhD.
- 4) The committees responsible for the comparative assessment of the applicants for the calls for applications referred to in paragraphs 2) and
 - 3) 3) of this Article shall be appointed by the Rector, after consulting the PhD Faculty of the programmes concerned. These committees are composed of at least three members chosen from among full university professors and researchers, to which no more than two experts, including foreign ones, may be added. Experts can fill two types of roles:
 - can be full members of the committee and therefore participate in the assessment of all the applicants;
 - may only participate in the comparative assessment for one or more themed scholarships.
- 5) The Politecnico di Milano admits candidates outside the competitive procedures referred to in the two previous points in the following cases:
 - a) agreements with foreign bodies and institutions in accordance with the selection and management procedures set out in the agreements;
 - b) EU and international collaboration projects, with specific admission procedures and organizational arrangements that take account of the characteristics of the individual projects, provided they are carried out as part of accredited PhD programmes;
 - c) double PhD and incoming joint PhD agreements;
 - d) agreements with companies or institutions that envisage the admission of company or institution employees to the PhD programme, aimed at interaction and integration between university research and the business or public world (Executive PhD). This requires an agreement between the company or institution and the department to which the PhD programme belongs;
 - e) scholarships granted directly by institutions or companies, for PhD programmes at the Politecnico di Milano.

In all the cases referred to in this paragraph, admission to the PhD programme, subject to verification by the Administrative Offices of the PhD School, is subject to the assessment of suitability by the PhD Faculty and is decided with an indication, if not already specified in the agreements or conventions, of the cycle, the duration of the PhD programme, the date of entry and any specific procedures for graduation.

- 6) PhD students who have attended a PhD programme at another university for at least one year, or another PhD programme at the Politecnico di Milano, may request a transfer in a PhD programme at the Politecnico di Milano under the following conditions:
 - the PhD programme applied for has similar training and research objectives;
 - PhD students document the programmes and activities carried out, and that these activities and/or programmes are fully or partially recognized by the PhD Faculty as equivalent to those required by the PhD programme for enrolment in the Politecnico di Milano;
 - PhD students successfully pass the assessment carried out by the PhD Faculty for admission to the following year's programme.

Admission to the PhD programme is decided by the PhD Faculty, indicating the cycle, the year of enrolment, the duration of the PhD programme, the date of entry and any specific procedures for graduating, also taking into account any documented activities carried out in the PhD programme of origin.

- 7) The title of Visiting PhD is awarded at the request of a University professor to PhD students from another University (Italian or foreign) who spend a research period of more than one month at the Politecnico di Milano, not covered by specific agreements. Visiting PhDs are not enrolled in PhD programmes at the Politecnico di Milano and do not receive the PhD qualification from the University. They will be provided with an ID card for access to general research support services provided by the University, including access to library services, the Internet and computer rooms, and will also be guaranteed basic insurance cover.
- 8) Specific access to training and research activities and the related organizational support defined by agreements and/or consortia with other Italian or foreign universities are managed according to the agreements made.
- 9) The Politecnico di Milano envisages the possibility, for those who request it and provide sufficient proof of proficiency, to enrol in individual PhD programmes. Enrolment, subject to authorization by the Coordinator (for specialist courses) or the School Director (for PhD School courses), may be against payment or free of charge, subject to fulfilment of the mandatory administrative and insurance obligations.
 - The maximum number of educational credits for courses that can be enrolled in is 10 per academic year, unless otherwise agreed in agreements or consortia with other universities. In the case of subsequent admission to a PhD programme, no more than 10 credits may be validated from individual courses.
- 10) Enrollment in a PhD programme is compatible with simultaneous enrollment in another higher education course, in the cases covered by current legislation; Simultaneous enrollment in two PhD programmes is not permitted, except where there are specific Double Doctoral and Joint Doctoral Agreements. Simultaneous enrollment between a PhD programme and a university Master's degree (I and II level) is permitted subject to a positive assessment by the PhD Faculty Board, who will verify its compatibility with the Research project. Where there is incompatibility, periods of suspension may be foreseen.

Article 8 Scholarships

- 1) Scholarships granted by the Politecnico di Milano are for one year and are renewed on condition that the PhD students have completed the programme of activities envisaged for the previous year, verified following the procedures established by these Regulations, subject to the obligation to grant the scholarship following the successful completion of the verification.
- 2) The amount of the scholarship, to be disbursed in monthly instalments, is determined in an amount not less than that laid down by the MUR. This amount is increased by 50% for a total period not exceeding 12 months, if PhD students are authorized by the PhD Faculty to carry out research activities abroad. This period may be extended up to a maximum total of eighteen months for PhD programmes in co- operation with foreign entities or in agreement or consortium.
- 3) In addition to the scholarship and within the framework of the financial resources available in the budget of the accredited bodies, PhD students are guaranteed a budget for research activities in Italy and abroad, appropriate to the type of programme and in any case not less than 10% of the amount of the scholarship.
- 4) If PhD students are not successful in renewing their scholarship, or if they renounce their scholarship, the unused amount remains with the Institution for the same purposes.
- 5) Scholarships granted by the Politecnico di Milano, or by other institutions through the Politecnico di Milano, are awarded following a comparative assessment of merit and in the order defined in a ranking list. In the event of equal merit, gender balance will be taken into account and, secondarily, lowerage.
- 6) In the event of withdrawal or if, during the programme, a beneficiary abandons his/her studies, the full or residual grant shall be awarded to the first eligible applicant or PhD student in the same cycle and PhD programme without a scholarship, according to the relevant ranking, taking into account any eligibility for themed scholarships.
- 7) For those enrolled with a scholarship, in the event of failure to carry out, or inadequate performance of, study and research activities on a continuous basis, the PhD Faculty may at any time order the revocation of the scholarship as follows:
 - The PhD Faculty appoints an investigating committee, which will include the Coordinator, the Supervisor, if any, and at least one further member of the Faculty the Committee thus appointed will assess the case after having summoned and heard the PhD student and other persons possibly involved.

- The Committee will report to the PhD Faculty which will decide on the possible revocation of the scholarship.
- The revocation may last for a minimum of one month and a maximum duration of up to the end of the PhD student's year of enrolment. Revocation of the scholarship does not result in loss of the post of PhD student.
- After the revocation period has ended, the PhD Faculty may decide in the same way as before to extend the revocation, or to reinstate the scholarship.
- 8) PhD students who have been awarded a themed scholarship may have their scholarship withdrawn in accordance with the procedures set out in the preceding paragraph if they no longer intend to devote themselves to the assigned theme and/or to collaborate with the research group and the assigned Supervisor.
- 9) Scholarships may not be combined with other scholarships of any kind, except with those granted by national or foreign institutions to supplement the training or research activities of the scholarship holders by means of stays abroad.
- 10) The provisions of paragraphs 4), 5), 6), 7) and 8) above shall not apply to scholarship holders from external bodies or beneficiaries of forms of financial support, provided that they receive such funding directly from their respective bodies.

TITLE V Training pathway and graduation

Article 9 Training pathway

- 1) At the start of each year of the programme, PhD students must submit a regular application and pay any tuition fees. On this occasion, PhD students, starting in their second year, have to fill in questionnaires to evaluate the PhD programmes and to collect data for the project to promote and enhance the figure of the PhD holder.
- 2) At the end of each year of the programme, PhD students are required to undergo an assessment, submitting a detailed report on their training and research activities to the PhD Faculty, which, after assessing the students' attendance of the programmes and training activities, their commitment and progress, decides whether to admit them to the following year or to the final examination, depending on whether they are in their first, second or third year.

A negative assessment by the PhD Faculty leads alternatively to:

- repetition of the year with suspension of the scholarship where granted, and with payment of tuition fees. For each year of the programme, repetition is allowed only once;
- exclusion from the PhD programme, with loss of the scholarship where granted. This exclusion is ordered by Rector's decree, and prevents enrolment in the same PhD programme for the following 5 years.

In the event that the PhD Faculty deems it appropriate to directly decide on an exclusion without a previous year of repetition, the request must be adequately justified and validated by the PhD School. In the event of serious and unjustified non-compliance, the PhD Faculty Board may call for an interim evaluation to assess possible exclusion from the PhD programme, before the annual deadline. Also, in this case the request must be adequately justified and validated by the PhD School.

After the final year, applicants who have achieved sufficient results but need more time to write their thesis may be granted an extension of up to 12 months with the same implications as regards suspension of the scholarship and payment of the tuition fees specified in Italian Ministerial Decree No 226 of 14 December 2021 and any subsequent amendments and additions.

- 3) The PhD Faculty agrees with the PhD student on the research project to be carried out as the subject of the thesis, in compliance with any conventions and agreements entered into with external funding bodies.
- 4) The PhD Faculty appoints, with the agreement of the PhD student, a supervisor to support him/her in the design and conduct of the research and thesis. The Supervisor, who may not be a member of the PhD Faculty and may not belong to the Politecnico di Milano, undertakes to respect the indications of the PhD Faculty and the PhD Training Project. In addition to the Supervisor, who is responsible for administrative matters, the PhD Faculty may also appoint other supervisors to collaborate in the scientific supervision of the PhD student.

- 5) The PhD Faculty assigns each PhD student a tutor (co-supervisor), chosen from among the professors who make up the Faculty.
 - The tutor (co-supervisor) supports the PhD student in the overall training pathway.
- 6) PhD students may carry out training or internships in companies and public and private entities, other universities, research institutes, centres and laboratories, both Italian and foreign. Training periods abroad are especially encouraged.
- 7) In the event of withdrawal from the programme, PhD students are required to notify the Rector and/or the PhD Coordinator; from that date any scholarship will be suspended.
- 8) PhD students, for proven reasons provided for by law, may request suspension from their studies for a minimum of one month and a maximum of six months, renewable if necessary. The request for suspension is subject to the approval of the PhD Faculty. The period of suspension will be made up after the official end of the programme. During the period of suspension, payment of the scholarship is suspended. It will be paid again on resumption of activity and during the period of making up for the suspension until the monthly payments due have been completed.
- 9) PhD students are subject to the provisions in force for the protection of parenthood as set out in the Decree of the Italian Minister of Labour and Social Security of 12.07.2007, published in the Official Gazette 247 of 23.10.2007 and subsequent amendments and additions. In the event of maternity, it is mandatory that participation in the PhD activities is interrupted for a period of 5 months in accordance with the regulations in force. The arrangements for taking compulsory leave can be flexible, in line with current legislation and subject to authorisation by the NHS medical specialist. With regard to compulsory maternity leave, the allowance paid by the INPS (National Social Security Institute) is supplemented by the Politecnico di Milano up to the full amount of the PhD scholarship.
- 10) PhD students who fail to carry out the planned activities for one year without a justified reason shall be excluded from the PhD programme by decision of the PhD Faculty, unless a period of suspension from studies has been granted in the meantime. The exclusion is ordered by Rector's decree.

Article 10 Graduating from the PhD

- 1) The title of PhD holder is awarded following the successful evaluation of a research thesis that contributes to the advancement of knowledge or methodology in the chosen field of investigation.
- 2) The PhD thesis, accompanied by a summary in English, is written in Italian or English or in another language subject to approval by the PhD Faculty.
- 3) PhD students are admitted to the final assessment procedures by the PhD Faculty, normally in the second half of the third year, or as provided for in specific agreements and arrangements. In the event of an extension, admission to the final assessment procedures may be decided from the end of the sixth month of the additional year.
 - The PhD Faculty, having positively assessed the progress of the work and in view of the specific pathway undertaken by the PhD student, may allow the student to enrol in a further year of the programme. In this case, admission to the final assessment procedures may be decided from the end of the sixth month of the additional year.
 - If it is established that the thesis has been substantially plagiarized from the work of other authors, the PhD Faculty may decide to exclude the PhD student from both the final examination and the PhD programme. The exclusion is ordered by Rector's decree. The authenticity of the thesis can also be verified by computer applications.
- 4) The PhD thesis, which is accompanied by a report by the PhD student on the activities undertaken during the PhD and any publications, is assessed by an Examination Committee. The PhD Faculty sets the deadline for sending the thesis to the external assessors. The assessors, within the deadline set by the PhD Faculty, express a written analytical judgement on the thesis and propose its admission for public discussion or its postponement for a period not exceeding six months if they consider that significant additions or corrections are necessary. At the end of this period, the thesis is in any case admitted for public discussion, accompanied by a new written opinion from the same assessors, made in the light of any corrections or additions made.
- 5) In order to be admitted to the thesis discussion, PhD students must register for the final examination and submit their thesis in accordance with the procedures and deadlines indicated on the website of the PhD School. At the end of the discussion, the thesis is approved or rejected by a reasoned written faculty judgement. The committee may, by unanimous vote, award honours for particularly outstanding scientific achievements. If the thesis is judged to be inadequate, the final examination cannot be repeated and the PhD student is excluded from the PhD programme. The exclusion is ordered by Rector's decree.
- 6) The title of PhD holder is awarded on passing the final examination, and is issued by the Rector of the Politecnico di Milano. After graduation, the Politecnico di Milano sends a copy of each PhD thesis to

the National Libraries of Rome and Florence. The PhD Faculties of the PhD programmes encourage the dissemination of the results of the theses by organizing public seminars at the end of the course in which the PhD students present the results of their research to scientific, economic and social stakeholders. With the prior authorization of the PhD Faculty, parts of the thesis may be made unavailable in connection with the use of data protected under current legislation.

- 7) The Rector, having heard the opinion of the PhD Faculty, appoints by decree the three-member Examination Committees responsible for the final assessment of the degree. At least two assessors must be from outside the institution awarding the doctoral degree, including from foreign institutions, and highly qualified, at least one of whom must be a university lecturer, respecting gender balance, where possible. The Committee may be supplemented by no more than two experts from public or private research institutions, including foreign ones.
 - National or international inter-university cooperation agreements may provide for specific procedures for graduation. In particular, the number of full members may be increased if this is provided for in double PhD and joint PhD agreements.
- 8) The discussion of the thesis normally takes place in the semester following the completion of the PhD programme. Under special circumstances, and with the prior approval of the PhD Faculty, it may also be brought forward to the last term of the PhD programme. In this case, the PhD scholarship holder loses his/her entitlement to the amount corresponding to the period between graduation and the official end of the programme. In exceptional cases, at the request of the Supervisor and with the prior approval of the Coordinator, the thesis discussion may be conducted remotely via digital means.
- 9) The Politecnico di Milano PhD School grants the additional title of European Doctorate to PhD graduates who have completed their training in accordance with the requirements defined in the proceedings of the 45th Congress of the Confederation of European University Rectors in November 1991. These requirements are:
 - that the PhD thesis is also the result of a research period *abroad*, of at least three months, in one or more countries that are part of the Bologna Process;
 - the PhD student submits a favourable report drawn up by at least two professors belonging to universities established in countries that are part of the Bologna Process, *different from those of the thesis discussion;*
 - the Final Examination Committee includes at least one member from a university institution in a country that is part of the Bologna Process, other than the university at which the thesis was discussed.

TITLE VI PhD students' Rights and Obligations

Article 11 PhD students' Rights and Obligations

- 1) The PhD student follows a training pathway with a view to graduating, and as such has the rights and obligations of a student.
- 2) Those enrolled in PhD programmes are obliged to attend courses and continuously carry out study and research activities. The PhD student is involved in the departments' research activities and
 - is therefore to be regarded, also in view of European directives, as an early-stage researcher.
 - 3) During the first year of the PhD programme, PhD students sign the Doctoral Agreement each with their Supervisor and tutor (co-supervisor) as indicated in the "Doctoral *Manual*" attached to these Regulations.
 - 4) If PhD students intend to carry out work activities that are not included in their Training Project, they must seek prior approval from the PhD Faculty, after consulting their Supervisor. This approval is subject to checks that such activities do not conflict with the PhD students' own activities and do not jeopardize the smooth running of the PhD programme; the approval may be delegated to the PhD Programme Coordinator.
 - 5) Please refer to the guidelines issued by the University on the management of PhD students' dual affiliation.

Title VII Transitional and final provisions

Article 12 Transitional and final provisions

- 1) These Regulations enter into force on the day following the date of issue of the Rector's Decree and are published on the University's website http://www.normativa.polimi.it.
- 2) For anything not explicitly stated in these regulations, reference is made to the rules contained in Italian Ministerial Decree No 226 of 14.12.2021 and any subsequent amendments and additions, as well as to other provisions issued on the subject in current legislation.

THE RECTOR

Prof. Donatella Sciuto

Digitally signed in accordance with the Digital Administration Code.





Doctoral Manual

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This document serves as a practical guideline for doctoral candidates and their supervisors at Politecnico di Milano. The document describes the roles, the organization and the workflow associated with the supervision and training of doctoral candidates.

The document has been approved by the Academic Senate of Politecnico di Milano (resolution n. 19470 of 18/10/2021)

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Introduction

Politecnico di Milano aims at stimulating the personal and professional development of doctoral candidates, in order to streamline their doctoral studies and minimise dropouts. The *Doctoral* Manual has been drawn up in consultation with our university's academic community. It builds on existing rules and regulations currently active at Politecnico di Milano, notably the Doctoral Regulations, the Italian Ministry Decree *226/2021* and the Code of Ethics and Conduct of Politecnico di Milano. The *Manual* is framed within the European Charter for Researchers. The above regulations are leading, whereas the present Manual is intended as a point of reference that should be considered by all those who are involved.

The principles and motivation of the present Manual stem from the Discussion Paper "Innovative Doctoral Training at Universities of Science and Technology", the Salzburg Principles for the Doctoral Programmes for the European Knowledge Society, and the subsequent Salzburg II Recommendations. All the aforementioned documents are available on the PhD School website. The Faculty Boards of the individual PhD programmes can draw up specific and additional measures to adapt the workflow to the local organization.

Selecting the right doctoral candidate is an important first step in a successful PhD programme. The PhD selection complies with the Human Resources Strategy for Researchers (HRS4R) principles, as acknowledged by the "HR Excellence in Research" award granted to Politecnico di Milano.

Doctoral supervision

A successful partnership requires both doctoral candidates and their supervisors to fulfil certain roles and take the related responsibilities. As members of the Politecnico di Milano research community, both should adhere to the university's core values, which are Responsibility, Respect, Integrity, Professionalism, Fairness, Trust, and Transparency, as well as the norms generally agreed with, and shared principles of research conduct.

Doctoral candidates can expect regular advice and support from their supervisors; both reactive and proactive advice shall be given. Appropriate supervision and a readiness to grow are vital to the successful completion of a doctoral programme. This partnership is based on (scientific) integrity and mutual respect, which are beneficial to the research and careers of both the doctoral candidates and their supervisors.

The Doctoral Candidate

Doctoral candidates are the most important actors in the PhD process. They are expected:

- TO PUT FORWARD innovative research and show ownership of the design, organization and execution of the research work;
- TO DELIVER agreed work packages on time;
- TO CONDUCT the research with care and in line with the professional academic standard of the field.
 Reporting must be complete and clear, and results must be appropriately documented. Research data must be well managed and shared according to the requirements suggested by Politecnico di Milano in the Code of Ethics and Conduct, and the funding parties of the research;
- TO STUDY the relevant work of others;





- TO PROPERLY acknowledge this foreground work and NEVER present work done by others as one's own work;
- TO CONDUCT research and disseminate results in accordance with all applicable codes and regulations, including those regarding, e.g., experiments with humans and animals, hazardous materials and substances, and (if any) agreements made with the funding parties of the research;
- TO AGREE with their supervisory team the publication and dissemination of the research results related to their PhD thesis. To this aim, written agreement must be obtained (an email is considered appropriate) from a member of the supervisory team before submitting the results for possible publication or dissemination in journals and/or conferences. Candidates who do not receive a reply to their publication/dissemination requests within 1 month may address their demand to the Head (Coordinator) of the PhD programme, who will provide prompt feedback;
- TO UPLOAD (or to ascertain that a coauthor uploads) on the Politecnico di Milano database (presently, the IRIS platform) all the papers published during the PhD career, and TO COMPLAIN with the Politecnico di Milano policy on open access
- TO WRITE a dissertation that shows the candidate's ability to conduct independent and original scientific research (not biased towards an outcome in the interest of any funding party), to master their research topic, and to discuss further research lines and/or applications;
- TO CONTACT the tutor or the PhD programme Head if difficulties occur in the relationship with the
 supervisor and seek professional assistance in the event of personal problems. For the same issues,
 and for others related to any serious professional or personal aspect arising during the doctoral
 studies, the candidates may refer to the Students' Advocate (*Difensore degli Studenti*), who will
 interact with the appropriate institutional bodies while ensuring privacy and discretion.
- TO REQUEST prior authorisation to the Faculty Board before undertaking any professional activity not envisaged by their Programme Plan. The authorisation will be secured upon ascertainment that such activities do not conflict with the good outcome of the doctoral programme.

The Supervisor(s)

The supervisors are expected:

- TO MAKE sure that there is a commitment to provide the candidate with an adequate supervisory team for the entire duration of the PhD career (at least 3 years);
- TO STIMULATE and support the doctoral candidates in conducting their research and to guide them towards becoming independent junior researchers;
- TO HELP the candidates develop a critical mindset, be able to handle critical comments, and enact effective scientific communication;
- TO PROVIDE feedback and assist the candidates at regular meetings (at least once a month) to define short- and medium-term goals, to reflect on the progress of the workplan, and to help define their doctoral training and research path;
- TO INFORM in advance (or as soon as possible) the candidates whether Non-Disclosure Agreements apply on the research to be conducted and/or whether other contractual duties apply;
- TO INTRODUCE and guide the candidates into the relevant academic and scientific communities;
- TO STAY up to date with Politecnico di Milano policies with regard to doctoral supervision, regulations and quality assessment;





- TO HELP monitor the research and work progress;
- TO AIM for completion of the (draft) dissertations within the expected time frame;
- TO CONTACT the tutor or the Head of the PhD programme about non-conformity issues and concerns.

The Supervisory Team

The doctoral candidate is supported by a supervisory team consisting of the supervisor, and possibly one or more additional members.

The supervisor is responsible for the proper guidance given by each supervisory team member, who should be an expert in the field of research and have experience with coaching doctoral candidates or students.

The supervisory team members (possibly, but not necessarily, co-supervisors) may also be post-docs or junior faculty members of the research group. They support and guide the candidate in the day-by-day research part, in agreement with the research plan drafted by the supervisor.

Team members may be affiliated with academic or non-academic organizations different from Politecnico di Milano. At least one member of the supervisory team is a faculty member of Politecnico di Milano.

The Tutor

Every doctoral candidate is assigned a tutor belonging to the Faculty Board of the PhD programme. Tutors should belong to a different research group than that of the supervisor. They support and advise the doctoral candidate on issues related to the organization and planning of research and doctoral education.

Tutors can anticipate possible bottlenecks and, if necessary, refer the doctoral candidate to the relevant colleagues in the organization. In the unfortunate case that doctoral candidates experience doubts or problems regarding the progress of their Doctoral Programme, tutors refer the candidates to the Head of the PhD programme, who has the responsibility to inquire into the interpersonal relations with the supervisor and supervisory team, and put forward possible solutions.

The doctoral candidate and tutor meet at least once a year, though more frequent periodic meetings are encouraged.

Project planning and formal arrangements

Different procedures and associated workflows and formalities apply to different phases of the doctoral trajectory.

Three main phases are identified: the introductory phase, the research phase, and the preparation of the dissertation and defence phase. Formal requirements are laid down in the Politecnico di Milano Doctoral Regulations and the Italian Ministry Decree **226/2021**.

¹ Particular cases in which the entire supervisory team is external to Politecnico di Milano must be explicitly approved by the PhD Programme Faculty Board.





The project start (months 0 – 6)

Once the candidate selection procedure is completed, the candidates proceed by completing their enrolment as Politecnico di Milano PhD candidates.

On behalf of the Faculty Board, **the Head of the PhD programme** sets up a *Welcome Meeting* in order to introduce the common rules which apply to all doctoral candidates, including doctoral education requirements, availability of research funds, and information on office space. In occasion of the Welcome Meeting, the present *Manual* and the related documents are presented to the incoming PhD students.

The potential supervisor(s) organise meetings with the doctoral candidate. Whenever the project is subject to a research agreement with third parties, they provide a comprehensive and specific project description, including the assignment and funding conditions. When thematic scholarships are offered, the requirements regarding the research topic and the research plan shall be specified in the scholarship description distributed with the call. The potential supervisors introduce the candidates to the supervisory teams. They all agree with the candidate and draft the content of the PhD Agreement Form, which is then submitted to the Faculty Board once all aspects are settled.

The supervisory team takes the cultural background of the doctoral candidate into account in setting up the proper supervision form. It is appropriate to inform the candidates, in particular those not having had a previous study or work experience in Italy, about the work-culture at Politecnico di Milano, and to discuss the expectations and critical success factors that a PhD project completed in time should possess.

Doctoral candidates ensure that individual formalities (registration, visa, permits, etc.) are in order, and complete the bureaucratic steps specified by the PhD School Secretary. They are expected to carry out their studies and research while explicitly complying with the Code of Ethics and Conduct and the content of the present Manual. They complete and submit the PhD Agreement Form in due time.

The PhD Agreement

The PhD agreement is a comprehensive project plan and framework for the doctoral career. The PhD Agreement is submitted through the online services as soon as possible, and in all cases within the first PhD year. It becomes effective once approved by the Faculty Board of the PhD programme.

The agreements are made between the doctoral candidate and the supervisor(s). The form includes a research description and plan, a description of the supervisory team, a preliminary agreement on the courses the candidate is expected to attend, and a preliminary agreement on the teaching activities the candidate is allowed/required to conduct. If the project receives external funding, the agreements made with the funding body must be mentioned in the research plan. In general, doctoral candidates can expect to be asked to spend about 10 to 15% of their time on educational or other activities not directly related to their own project. The time plan of these activities should be envisioned in such a manner that the resulting delay in the research progress of the PhD candidate is minimised.

If/when needed, the PhD Agreement can be modified/updated. When this is the case, a new Agreement is filled in and submitted, and it is subject to a new approval by the Faculty Board of the PhD Programme. Whenever the modification of the *PhD* Agreement requires a new supervisor to be identified, the Head of the PhD programme assists the candidate in identifying a new guidance and, if a new supervisor cannot be identified, takes personally care of guiding the candidate's research.





When a modification of the *PhD* Agreement is requested in the presence of a thematic scholarship, the Faculty Board must assess whether the new Agreement complies with the requests specified in the description of the scholarship. In case the Agreement is found not to be compliant with the scholarship description, the Faculty Board can suspend the thematic scholarship, taking also into account the opinion of the supervisor and of the company possibly funding the scholarship.

The Doctoral Education programme and the Study Plan

Each doctoral candidate is expected to attend a certain number of courses and take some exams at Politecnico di Milano (or external partners whenever authorised).

The PhD School of Politecnico di Milano offers courses and educational activities aimed at reinforcing the PhD candidates' curricula with soft and transferable skills. Every PhD candidate is expected to earn at least 10 ECTS from courses organised by the PhD School.

Each PhD programme complements the doctoral education with discipline-related courses. The minimum number of credits that must be earned through these courses depends on the PhD programme. It is stated in the Programme Plan, and quoted in the PhD Agreement.

First-year doctoral candidates ascertain which courses are available and submit a Study Plan that is examined and approved by the Head of the PhD programme. The tutor may support the candidate in checking whether the courses chosen for the Study Plan comply with the PhD programme regulations. In the first year, the study plan can contain a number of courses which is less than the total number of required credits.

The research phase (months 6 – 30)

Research meetings between doctoral candidates and members of the supervisory team are a crucial success factor. Formal meetings may include milestones in which the research progress is analysed, and possible modifications of the research plan are discussed. More frequent regular meetings must also be scheduled to assess the progress of the planned research.

All required courses should be completed by the end of the second year.

Yearly milestones with the Faculty Board

All PhD programmes at Politecnico di Milano organise a yearly milestone in which all PhD activities carried out by the candidates are discussed with and assessed by the Faculty Board of the PhD programme.

Before the meeting, PhD candidates are asked to submit a report of the research and educational activities conducted during the year. Presenting the research activity to the Faculty Board is a unique opportunity to train and strengthen the public communication and scientific communication skills. Possible outcomes of the yearly evaluation are:

- Go (with an A/B/C/D grade), which secures access to the next PhD year;
- Er (No Go | Repeat), which requires a repetition of the PhD year. The PhD scholarship, if any, is suspended during the repeated year, and is restored only after a "Go" result in the next yearly milestone;
- Ei (No Go | Exclusion), which ends the candidate's PhD career. Two consecutive Er (repeat) evaluations automatically determine an Ei (exclude).





Supervisors and/or PhD programme Heads provide feedback on the development status of the PhD research project. In particular, as soon as they understand that the candidates are at risk of receiving non-positive feedback (Er or Ei) in their following yearly milestones, they make this risk explicit to the candidate. If at all possible, the resulting critical feedback should be provided by email or in any written form, possibly by keeping the tutor and/or the Head in copy. The overall expectation of the PhD School is that "No Go" evaluations should not come as a surprise.

Further intermediate milestones meetings with the Faculty Board might be prescribed by the single PhD programmes.

At the end of the last year of the expected PhD duration, the Faculty Board may award an extra year to complete the PhD thesis. In case the PhD candidate is granted a scholarship, the extra year does not extend the scholarship duration. The Faculty Board may also accept a candidate's request to submit the PhD thesis before the end of the extra year.

The PhD School promotes and encourages interaction among doctoral candidates to foster interdisciplinarity and networking during the PhD career. Such initiatives can be addressed to the PhD representatives at the PhD School Council.

Politecnico di Milano supports the career development of its PhD graduates through the Career Service. More specifically, Career Service offers a personalised programme that supports the PhD candidates in:

- finding out sectors and positions in the labour market in Italy and abroad that are most suitable to their personal ambitions and chosen PhD route;
- building an effective CV and personal statement;
- evaluating the PhD candidates' profile to ensure the best presentation to the corporate world improving their interview technique by having a mock interview with experts.

The doctoral dissertation (months 30+)

The doctoral dissertation is a publication that describes the candidate's original scientific research.

The dissertation includes a clear introduction, a complete research description, and extensive discussion, reflection and prospects of the results. The thesis is pre-evaluated by the Faculty Board, which establishes the admission of the doctoral candidate to the defence. It is further assessed by two external referees following the Politecnico di Milano and national regulations. The candidate is allowed up to six months to implement modifications and improvements in the thesis, in response to the referees' reports.

The final defence (months 36+)

A public defence of the thesis follows. Possible outcomes of the final discussion are: degree awarded *cum laude*; degree awarded; degree not awarded.

After a successful defence, candidates receive a degree and a Diploma Supplement, in which their doctoral activities are specified. Doctoral graduates are valued alumni of Politecnico di Milano – as a matter of fact, each Doctor represents a new, long-term extension of Politecnico di Milano academic network.

Further conditions on the doctoral dissertation and/or the public defence could be present in double/joint doctoral agreements, in case the PhD candidates enter one such path.