



Public competition for admission to the doctoral research programme in Intersectoral Innovation of the University of Milan (industrial PhD pursuant to art. 10 of Ministerial Decree no. 226/2021) - a. y. 2024/2025

Public competition for admission to the DOCTORAL RESEARCH PROGRAMME IN INTERSECTORAL INNOVATION of the University of Milan - a. y. 2024/2025 2

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Dir. DF/FTLI

PUBLIC COMPETITION FOR ADMISSION TO THE DOCTORAL RESEARCH PROGRAMME IN INTERSECTORAL INNOVATION OF THE UNIVERSITY OF MILAN - A. Y. 2024/2025

THE RECTOR

- Having regard to Ministerial Decree no. 270, dated 22 October 2004, entitled “Amendments to Regulation no. 509 containing rules governing the educational autonomy of Universities, passed by a Decree of the Ministry for Universities and Scientific and Technological Research on 3 November 1999”;
- Having regard to article 4 of Law no. 210 dated 3 July 1998, as amended by art. 19, paragraph 1, of Law no. 240 dated 30 December 2010;
- Having regard to Regional Law no. 33, dated 13 December 2004, entitled “Rules governing regional measures to ensure the right to study at university”, which makes provisions for services in favour of students enrolled in doctoral programmes;
- Having regard to Ministerial Decree no. 226 dated 14 December 2021, entitled “Regulations concerning the accreditation methods of doctoral locations and programmes and the criteria for the institution of doctoral programmes by accredited bodies”;
- Having regard to Law no. 33 dated 12 April 2022, entitled “Provisions on simultaneous enrolment in two higher education programmes”, and in particular art. 4, paragraph 1;
- Having regard to Ministerial Decree no. 930 dated 29 July 2022, according to which “starting from the academic year 2022/2023, Universities shall include in their academic regulations general provisions to facilitate the simultaneous enrolment of students”;
- Having regard to the Statute of the University of Milan, issued by Rector’s Decree of 15 March 2012, as subsequently amended;
- Having regard to the University Regulation for PhD Programmes and Students, issued by Rector’s Decree of 5 June 2015, as subsequently amended;
- Having regard to Ministerial Decree protocol no. 1354 of 12 December 2022, whereby the Ministry of University and Research (MUR), pursuant to Ministerial Decree 226/2021, granted five-year accreditation to the doctoral research programmes proposed by the University of Milan, subject to ongoing compliance with the prescribed requirements;
- Having regard to the note of the Ministry of University and Research of 2 May 2024, protocol no. 8614;



- Having regard to the resolutions adopted by the Academic Senate and the Board of Directors during their meetings of 14 and 28 May 2024, concerning the institution of the 40th doctoral cycle;
- Having regard to Ministerial Decree no. 629 dated 24 April 2024, establishing provisions regarding the institution, for the academic year 2024/2025, of three-year doctoral scholarships to be funded under Italy's National Recovery and Resilience Plan (PNRR), Mission 4, Component 1 "Strengthening the provision of education services: from nurseries to universities" - Investment 3.4 "Advanced university education and skills" and Investment 4.1 "Extension of the number of doctorates and innovative doctorates for Public Administration and cultural heritage", for students attending doctoral programmes accredited pursuant to Ministerial Decree no. 226/2021;
- Having regard to Ministerial Decree no. 630 dated 24 April 2024, establishing provisions regarding the institution, for the academic year 2024/2025, of three-year doctoral scholarships to be funded under Italy's National Recovery and Resilience Plan (PNRR), Mission 4 "Education and research", Component 2 "From research to business" - Investment 3.3 "Introduction of innovative doctorates responding to the innovation needs of companies and promotion of recruiting researchers from businesses", for students attending doctoral programmes accredited pursuant to Ministerial Decree no. 226/2021;
- Without prejudice to the fact that, pending checks by the Ministry of University and Research (MUR) to verify that research projects are admissible for PNRR funding, the admission of applicants selected as recipients of scholarships established under Ministerial Decrees 630/2024 and 629/2024 is subject to the successful outcome of such admissibility checks, and to the actual allocation of ministerial funds;

HEREBY DECREES AS FOLLOWS:

Art. 1 - Institution of the industrial doctoral research programme "Intersectoral innovation"

Subject to accreditation by MUR, and checks to verify ongoing compliance with accreditation requirements, the industrial doctoral research programme "Intersectoral innovation" is instituted at the University of Milan for the academic year 2024/2025 (40th cycle - beginning 1 November 2024).

A public competition for admission to the above doctoral research programme, based on qualifications and exams, is hereby announced at the University of Milan. The programme specification attached to this decree, which is an integral part of this document, contains a brief description of the programme and a link to the page of the University website where applicants



can view the proposed research topics for the programme, as identified by the Faculty of Instructors based on the programme's objectives and its research and educational focus.

The number of scholarships may be increased, should external funding become available.

In accordance with Ministerial Decrees 629/2024 and 630/2024, the number of scholarships may also be increased if, at the end of the selection process, the Ministry issues an ad-hoc decree quantifying and redistributing any additional funds that have become available in the interim for the 40th doctoral cycle, as well as any residue funds from the 38th and 39th cycle.

PNRR scholarships are not awarded to applicants who have already accepted and foregone a PNRR scholarship for the 38th or 39th cycle (scholarships established under Ministerial Decrees 351/2022, 352/2022, 117/2023 and 118/2023).

Foreign applicants who are in receipt of scholarships issued by their country of origin may be admitted in excess of the enrolment quota, if they pass the admission exams set out in this decree.

Art. 2 - Admission requirements

Applicants in possession of a second-cycle degree (*Laurea magistrale*), an equivalent qualification or a qualification equivalent to the level of studies (Master's Degree) awarded by a foreign university, may apply for admission to the doctoral research programme stated in the preceding article.

The suitability of foreign academic qualifications in terms of content is evaluated by the Admission Committee, in compliance with the regulations in force in Italy and in the country in which the academic qualification was issued, and with the international treaties or agreements on the recognition of qualifications for the continuation of studies.

Applicants who have not yet obtained their second-cycle degree (*Laurea magistrale*) may also apply, but they are required to earn the second-cycle degree by the programme starting date (1 November 2024), otherwise they will be excluded from the programme.

Art. 3 - Application for admission

Applications for admission must be submitted by **2 pm on 22 July 2024**, following the instructions below:

- 1) [Register on the University portal](#) (this step is not required for those already registered on the portal or in possession of UNIMI login credentials or a SPID identity);
- 2) Log in and submit an application for admission via the [Doctoral programme admission services](#);



- 3) At the end of the online application process, and in any case by the deadline for admission, pay a non-refundable €50.00 application fee;
- 4) Upload the following documents as .pdf, .rtf or .jpg files, all under 10 MB:
 - A. Diploma Supplement or Bachelor's and Master's diplomas (or equivalent qualification obtained in Italy or abroad), with transcript of records. Applicants who have yet to obtain their Master's degree are required to submit a certificate of enrolment in lieu of the diploma. All documents must be in Italian, English, French, German or Spanish.

Self-drafted affidavits are accepted as and where provided for by the laws in force.

Applicants who have completed or are about to complete their studies at the University of Milan do not need to upload any certificates/diplomas attesting to such studies, as these documents will be acquired internally;
 - B. CV, describing any professional experience and other qualifications held by the applicant;
 - C. motivation letter, drafted using [Form 1 attached hereto](#) and specifying at least one, and up to a maximum of five, codes for the research topics the student is interested in pursuing, as selected from the table contained in the attached programme specification;
 - D. copy of passport (foreign applicants only);
 - E. publications in Italian or English (if any);
 - F. [Annex A](#);
 - G. online interview request (if desired; please use [Form 3](#) attached).

Failure to provide even just one of the documents from A to C above will result in the applicant being excluded from the competition.

Non-EU applicants residing abroad are also required to submit an online application for pre-enrolment through [Univarsity](#), in order to obtain a student visa.

The online application cannot be modified or supplemented with further documentation once it has been confirmed.

It is possible to apply for any number of doctoral programmes, provided that the applicant registers properly for each programme, as described above, including payment of the non-refundable fee of €50.00 for each application submitted.



Art. 4 - Applicants with disabilities

In order to ensure equal treatment of applicants, those holding a certificate of disability (*invalidità civile*) and/or handicap pursuant to Law 104/1992 may apply for accommodations by writing to COSP Disability Services (ausili.ammissioni@unimi.it) at least 15 days before the interview, and attaching the certificate issued by the competent public health office. Applicants holding outdated certificates are required to apply for an updated certificate, to be submitted after enrolment for the purposes of using disability accommodations as offered by the University.

Art. 5 - Applicants with SLD

In order to ensure equal treatment of applicants, those holding a Specific Learning Disorders (SLD) certificate issued by the National Health Service, a private affiliated centre, or a private specialist (with a compliance certificate from the competent health authority) pursuant to Law 170/2010, are required to email their certificate to COSP SLD Services (ausili.ammissioni@unimi.it) at least 15 days before the interview. If the SLD was diagnosed in childhood, and the certificate is over three years old, students should apply for an updated certificate, to be submitted after enrolment for the purposes of using SLD accommodations as offered by the University.

Art. 6 - Admission exam

Admission to the doctoral programme is through a public selection procedure involving the evaluation of qualifications and tests for the comparative assessment of applicants. Applications are vetted by an Admission Committee appointed in compliance with current regulations. The Committee may be assisted by experts in the research areas listed in the attached programme specification, as well as by representatives of the sponsoring organisations, but solely to express an opinion on the applicant's aptitude for the research in question.

The Committee will grant admission and award the scholarships associated with each particular research topic based on the results of the selection procedure. The Committee will also take into account each applicant's preferred research topics, as identified in their application.

Selection stages:

- assessment of the CV (max. 30 points);
- interview (max. 70 points).

Only applicants who obtain at least 15 points for the CV are called for the interview.

The selection process aims to ascertain the applicant's prior knowledge, skills, aptitude for scientific research and personal motivations. It is based on the **assessment of the CV** and an **in-person or online interview**.



The applicant's CV is assessed before the interview. Applicants will be able to see the result of this assessment on the [University portal](#) on the programme webpage.

When assessing the CV, the Committee takes into account the applicant's university studies, publications, professional experience and other qualifications, if any. In assigning points for the CV, the Committee considers the statistical distribution of exam grades for the study programme courses, as well as the conditions and the period over which the applicant has obtained his/her qualifications.

The interview is public; interview dates will be posted on the University portal following the assessment of qualifications. The interview aims to verify the applicant's knowledge of topics germane to the educational and scientific contents of the doctoral programme, and will include a general discussion to verify the applicant's expertise, scientific qualities and motivations.

The interview can be in Italian or English, at the applicant's choice.

To take the interview, applicants must present one of the following identity documents:

- identity card;
- passport;
- (Italian) driving licence.

The outcome of the interview process will be communicated by the Committee at the end of the interviews.

At the end of the interviews, the Committee draws up a general ranking list according to the total score assigned to each applicant for their CV and interview.

The minimum pass score is 70/100.

The general ranking is published on the [Postgraduate admission rankings page](#) in the days following the interviews.

The Committee must conclude their work by the day after the last interview.

Art. 7 - Admission to the doctoral programme

Applicants are admitted to the programme according to their position in the ranking list until the number of places available has been filled. Where applicants achieve the same score, preference will be given to the younger applicant, with the exception of the priority criterion for doctoral scholarships set forth in art. 9 of this call for applications. The ranking of eligible applicants will be published in the days following the interviews on the [Postgraduate admission rankings page](#) of the University website.



Such ranking posted on the University website constitutes notification to the interested parties, who will not receive any written notice.

Applicants admitted to the programme lose their entitlement if they fail to enrol by the deadline, as specified in art. 8 below. Their place is then given to the next applicant in the ranking list. This also applies if an admitted applicant withdraws from the programme during the first three months. If the withdrawing student has already received any monthly scholarship payments, he/she is required to return them. Takeover applicants will be contacted personally by email by the Student Office for PhD Programmes (*Segreteria Dottorati*), which will provide instructions and deadlines for enrolment.

Applicants who rank high enough for admission into multiple doctoral programmes may only matriculate into one.

Simultaneous enrolment in two academic programmes is allowed within the limitations provided for by current regulations, and must be assessed and approved by the competent bodies.

More specifically, simultaneous enrolment in a doctoral programme and a postgraduate medical school is subject to the provisions of Ministerial Decree no. 226 of 14 December 2021.

For information on how to apply for simultaneous enrolment in two programmes, please visit the following link: [Simultaneous enrolment in two higher education programmes | University of Milan \(unimi.it\)](https://www.unimi.it/it/segreteria-dottorati/segreteria-dottorati-simultanea).

Art. 8 - Enrolment

Applicants admitted to the doctoral programme can enrol online **between 13 and 17 September 2024 (2:00 pm)** using the [SIFA enrolment services](#) and following the instructions published on the [University website](#).

Those who have yet to obtain their Master's degree must notify this to the University by writing to [InformaStudenti](#) > Postgraduate > Doctoral research (PhD).

Applicants are admitted conditionally and may be excluded from the programme if they are found not to meet the requirements.

Those enrolled in doctoral programmes must pay the annual regional tax for the Education Incentive Programme in the amount of €140.00, plus a €16.00 stamp duty and a €15.50 insurance premium.

Students with a disability percentage at or above 66% and/or a recognised handicap pursuant to Law no. 104/92 will have the regional tax waived, provided that they submit an application for exemption; these students are only required to pay the €16.00 stamp duty.

Enrolment fees are non-refundable, even if a student withdraws from the doctoral programme.



Applicants holding a foreign qualification are required to upload the following documents when completing the online enrolment process:

- original degree certificate legalised by the competent authorities of the issuing country, with an official translation into Italian;
- Declaration of Value (*Dichiarazione di Valore in loco*) issued by the Italian Embassy in the country where the degree was obtained, or Statement of Comparability issued by the Italian ENIC-NARIC centre (CIMEA), or another ENIC-NARIC centre. Instead of the CIMEA Statement of Comparability, applicants may provide a Statement of Correspondence downloaded from ARDI (Automatic Recognition Database Italia) along with a CIMEA Statement of Verification.

During the online enrolment process, **non-Italian citizens** must also upload the following:

- Italian tax ID (*codice fiscale*, for both EU and non-EU citizens);
- valid residence permit (only for non-EU citizens);
- University pre-enrolment application receipt (only for non-EU citizens residing abroad);
- student visa (only for non-EU citizens residing abroad).

Applicants who are not in possession of one or more of these documents when enrolling online must produce the missing documents **by 28 November 2024**, via the [Enrolment documents integration service](#).

The validity of foreign qualifications is verified upon submission of the official documents. Until then, applicants are admitted to the programme conditionally, and may be excluded from the ranking if they are found not to meet the requirements.

Art. 9 - Scholarships

Scholarships are awarded in accordance with and by the methods established by the laws in force, based on the student's ranking. The gross amount of the scholarship is **€16,350.00** per year.

The scholarship is not subject to IRPEF (personal income tax) in accordance with art. 4 of Law no. 476 of 13 August 1984, and is subject to the social security provisions set forth in art. 2, paragraph 26 et seq., of Law no. 335 of 8 August 1995, as subsequently amended.

Working students falling into the categories appearing in art. 26 of the University Regulation for PhD Programmes and Students will be eligible to apply, provided their working income does not exceed the scholarship amount. Income under the limitation is defined as gross earnings during the year to which the scholarship is principally allocated.



In the event of applicants ranked equally, scholarships are awarded by assessing the applicant's economic situation according to the ISEE (Equivalent Economic Situation Indicator).

Scholarships have a yearly duration and are renewed if the Faculty of Instructors promotes the student to the following year, after ascertaining that he/she has correctly and successfully completed the programme of activities in the previous year.

Starting from the first year, in addition to the scholarship and depending on the University's financial resources, each doctoral student is given a budget for research activity in Italy and abroad suited for the type of programme, and in any case amounting to no less than 10% of the amount of the scholarship itself.

Art. 10 - Scholarships established under Ministerial Decree 629/2024

This call for applications provides for the allocation of scholarships established under Ministerial Decree 629/2024, to be funded under Italy's National Recovery and Resilience Plan (PNRR). These scholarships are instituted to facilitate the advancement of research on the following subjects: digital and environmental transition; PNRR topics (digitalisation, innovation, competitiveness, culture and tourism; green revolution and ecological transition; sustainable mobility; education and research; inclusion and cohesion; health); Public Administration; cultural heritage.

Applicants selected as recipients of scholarships established under Ministerial Decree 629/2024 must comply with the obligations set forth in said decree, which requires them, *inter alia*, to:

- a) complete the entire PhD programme at the administrative and operational facilities of the University, except for any study and research stays at public administrations, companies or research centres and any periods abroad, all of which must be planned in accordance with the training and research activities scheduled at the University;
- b) study and conduct research at companies, research centres or public administrations, including museums, institutes and training institutions under the Ministry of Culture (e.g. *Fondazione scuola dei beni e delle attività culturali* and other schools for advanced studies), archives and libraries for a minimum of 6 months and up to 12 months (not necessarily in a row) during the three years of the programme;
- c) study and conduct research abroad for a minimum of 6 months (not necessarily in a row) and up to the maximum number of months specified in art. 9, paragraph 3, of Decree no. 226 of the Ministry of University and Research dated 14 December 2021, during the three years of the programme;
- d) produce a report detailing their time commitment (in terms of months spent at a company or research centre or public administration, at the home University and abroad) and a summary of the activities undertaken, along with a declaration that said activities comply with the "Do No Significant Harm" principle.



Those referred to under b) and c) are two separate types of study and research stays, and must be completed at different host organisations.

Art. 11 - Scholarships established under Ministerial Decree 630/2024

This call for applications provides for the allocation of scholarships established under Ministerial Decree 630/2024, to be funded under Italy's National Recovery and Resilience Plan (PNRR). These scholarships are instituted to facilitate the advancement of research on topics covered by innovative doctorates responding to the innovation needs of companies and promoting the recruitment of researchers by businesses.

Applicants selected as recipients of scholarships established under Ministerial Decree 630/2024 must comply with the obligations set forth in said decree, which requires them, *inter alia*, to:

- a) complete the entire PhD programme at the administrative and operational facilities of the University, except for the study and research periods to be completed at a company and abroad, all of which must be planned in accordance with the training and research activities scheduled at the University;
- b) study and conduct research at a company for a minimum of 6 months and up to 18 months (not necessarily in a row), during the three years of the programme;
- c) study and conduct research abroad for a minimum of 6 months (not necessarily in a row) and up to the maximum number of months specified in art. 9, paragraph 3, of Decree no. 226 of the Ministry of University and Research dated 14 December 2021, and in art. 8, paragraph 3, of Decree no. 470 of the Ministry of University and Research dated 21 February 2024, during the three years of the programme;
- d) produce a report detailing their time commitment (in terms of months spent at the company, at the home University and abroad) and a summary of the activities undertaken, along with a declaration that said activities comply with the "Do No Significant Harm" principle.

Those referred to under b) and c) are two separate types of study and research stays, and must be completed at different host organisations.

Art. 12 - Civil servants

Pursuant to art. 12, paragraph 5, of Ministerial Decree 226/21, civil servants admitted to the doctoral programme as scholarship recipients may be granted a leave as contemplated by the applicable collective agreement, or, for those employed under public law, an extraordinary leave for study purposes, for the standard duration of the programme – provided that such leave does



not conflict with the needs of the employing administration, as per art. 2 of Law no. 476 dated 13 August 1984 – but only if this is the first time that they enrol in a doctoral programme, independently of the programme subject area; the leave may be paid or unpaid, subject to the civil servant's right to explicitly forego the scholarship. This does not affect their right to receive a budget for research activities in Italy and abroad, as per art. 9, paragraph 4, of Ministerial Decree 226/21.

Art. 13 - Places reserved for employees of companies and institutions

Pursuant to art. 10 of Ministerial Decree no. 226/221, some of the places available for this industrial doctoral programme are reserved for employees of affiliated companies and institutions who are involved in highly-qualified activities. These applicants may be admitted to the programme only after successfully completing the selection process.

No scholarship is awarded to applicants selected for these positions.

The organisation of research activities to be carried out at the company/institution and the distribution of the total commitment expected from the employee are agreed in advance between the parties.

The affiliated companies/institutions and the places available are detailed in the attached programme specification.

For the purpose of this selection, the application and enrolment processes are subject to the provisions set out in articles 3 and 8 of this call.

Art. 14 - Obligations of doctoral students

The rights and obligations of doctoral students are regulated by **articles 26 and 27 of the [University Regulation for PhD Programmes and Students](#)**. Please bear in mind the following:

- Doctoral research programmes entail 1,500 hours of **training-education and research activities** per year. A full-time commitment is required of each student for the whole duration of the programme.
- In order to obtain their PhD, doctoral students **are required to demonstrate English proficiency at level B2** of the Common European Framework of Reference for Languages (CEFR).

To meet the language proficiency requirement, doctoral students must submit an English certificate from one of the certifying bodies recognised by the University (<https://www.unimi.it/en/study/language-proficiency/placement-tests-and-english-courses/accepted-language-certificates>), at B2 level or above, by the end of the first programme year.



An exemption from submission of a language certificate is granted only to:

- those who, by the starting date of the PhD programme, have earned a Master's degree featuring an English-language specialisation in one of the following Master's degree classes: LM-37 Modern American and European languages and literature, LM-38 Modern languages for communication and international cooperation, LM-39 Linguistics, LM-94 Interpreting and specialised translating, or equivalent Master's degree;
- those who, by the date of their enrolment, have earned a Master's degree in a programme taught entirely in English;
- those who, during their prior study programme, have earned a B2 English language statement issued by SLAM - University of Milan Language Centre.

No other exemptions will be granted.

Art. 15 - Award of the degree

The degree of Doctor of Philosophy, abbreviated to "Dott. Ric." or "Ph.D.", is awarded in accordance with the provisions of art. 27 of the University Regulation for PhD Programmes and Students.

Art. 16 - Processing of personal data

Pursuant to Legislative Decree no. 196 of 30 June 2003, as amended by Legislative Decree no. 101 of 10 August 2018, as well as Regulation (EU) 2016/679 (General Data Protection Regulation, GDPR), the University undertakes to respect the confidential nature of the information provided by applicants. All data provided will be processed solely for purposes related and instrumental to the competition and to manage the applicant's relationship with the University, where necessary, in compliance with current laws.

Art. 17 - Applicable laws and regulations

Any items for which no specific provision has been made in this call for applications shall be regulated in accordance with the Italian laws and regulations governing doctoral programmes.

Art. 18 - Person in charge of the procedure and contacts

Pursuant to Law no. 241 of 7 August 1990, the person in charge of the procedure set forth in this call for applications is Ms Monica Delù (Head of the Post-Graduate Programmes and International Students Services Sector).



UNIVERSITÀ
DEGLI STUDI
DI MILANO

MISSIONE 4
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For further information or clarifications please use the [InformaStudenti](#) service, selecting the category: Postgraduate > Doctoral research (PhD).

Milan, 21 June 2024

THE RECTOR
(signed Elio Franzini)

Filed as record no. 4210/2024 of 21 June 2024



Programme specification – Doctoral research programme in Intersectoral innovation

Learning objectives

The PhD programme in INTERSECTORAL INNOVATION intends to develop a cadre of professionals equipped with the field-specific and interdisciplinary skill set needed to access, both during their doctoral programme and in their professional career thereafter, entirely novel professional opportunities. This decidedly intersectoral training will pave the way for a career in academia or in business or industry, facilitating the transfer of knowledge and techniques intrinsic to the academic sphere to the world of manufacturing and production. These professionals are expected to become a driving force for an increasingly connected and effective cooperation between business and academia. Students will be specifically trained to be able to take on research responsibilities and approaches in those knowledge fields where processes are characterised by a high degree of scientific, technological and societal innovation. The multidisciplinary nature of UniMi allows the institution to develop high-level, field-specific and interdisciplinary doctoral learning pathways, newly customised to the needs of the businesses partnering with our doctoral programme, and of the manufacturing and public sector at large. Students will have access to a broad network of research institutions and have the chance to conduct research in Europe's most sophisticated facilities, thanks to the national and international projects in which our instructors participate. This level of international exposure is ensured by UniMi's status as the sole Italian member of LERU (League of European Research Universities), and, since 2019, as member of the 4EU+ Alliance, along with seven other major Universities, i.e. the Sorbonne University in Paris, Charles University in Prague, Paris-Panthéon-Assas University and the Universities of Heidelberg, Warsaw, Copenhagen and Geneva, whose mission is to create a European university campus marked by the international mobility of its students, instructors and staff, and by an organic synergy between the classroom and the research laboratory. At present, the University of Milan offers 33 PhD programmes, which are grouped in five areas:

- exact sciences
- humanities
- legal, political, economic and social sciences
- medical sciences
- life sciences

Over the past few years, there has been a major push within each doctoral programme to draw top instructors and experts in their respective domains, both from the University's own faculty and from other institutions and organisations. The INTERSECTORAL INNOVATION faculty will be made up of business leaders, University instructors possessing a high level of scientific knowledge and specific experience in liaising with both the business world and the public sector, and finally of the coordinators of UniMi's current doctoral programmes (or their deputies).



The broad range of research topics explored within the University's 33 PhD programmes will allow students to identify the best educational pathway to reach their research goals, with the active support of the programmes' business partners, not to mention the manufacturing and institutional infrastructure for which Milan, and the Region of Lombardy more generally, are renowned. To this end, each student will have the support of two supervisors, one from within the University, and one business leader. These ad-hoc programmes will be developed in sync with the company and the PhD programme's faculty, and will require both University coursework as well as research activities.

Research topics

Research topics are also available on the [University portal](#).

Code	Research title	Scientific Director	Type of position (scholarship-based or reserved place)
1	Modeling Plasmon Nanocatalysis	Giovanni Onida	Scholarship funded under Ministerial Decree 629/24 - Public Administration
2	Evaluation of the distribution and management of contaminants in high mountain environments	Roberto Ambrosini	Scholarship funded under Ministerial Decree 629/24 - Public Administration
3	Understanding the impacts of glacier retreat on biodiversity using museum data	Francesco Ficotola	Scholarship funded under Ministerial Decree 629/24 - Public Administration
4	Digitalization in healthcare sector: sustainability governance, management and evaluation	Marta Marsilio	Scholarship funded under Ministerial Decree 629/24 - Digital Transition
5	Bill AS 0165 Pending Approval in the Chamber of Deputies. Regional Implementation of the Law Enacting	Lorenza Violini	Scholarship funded under Ministerial Decree 629/24 - Public Administration



	Article 116, Paragraph III, of the Constitution		
6	Public Policies between Co- Planning and Co- Design (collaboration between Local Authorities and Third Sector Organizations in the Lombardy Region)	Benedetta Vimercati	Scholarship funded under Ministerial Decree 629/24 - Public Administration
7	The impact of artificial intelligence on companies: economic analysis and legal aspects	Maria Elisa D'Amico	Scholarship funded under Ministerial Decree 629/24 - Public Administration
8	Pricing ecosystem services in high elevation remote areas	Guglielmina Diolaiuti Antonella Senese	Scholarship funded under Ministerial Decree 629/24 - Public Administration
9	Validation of a Methodology for the Reduction of Microplastics in Civil and Industrial Wastewater	Andrea Binelli	Scholarship funded under Ministerial Decree 629/24 - Public Administration
10	Increasing farm sustainability in viticulture through a biodiversity- friendly vineyard management	Mattia Brambilla	Scholarship funded under Ministerial Decree 629/24 - Public Administration
11	Significance of data in developing Artificial	Lorenza Violini	Scholarship co-funded by Moxoff S.p.A. under Ministerial Decree 630/24



	Intelligence Models: legal issues		
12	Optimizing Personal Data in Healthcare and Integrated E-Health Systems: a Legal and Constitutional Perspective	Lorenza Violini	Scholarship co-funded by Technology for Edge Applications under Ministerial Decree 630/24
13	Quantum computing for aerospace	Enrico Prati	Scholarship co-funded by Thales Alenia Space Italia S.p.A. under Ministerial Decree 630/24
14	Extended Producer Responsibility: a comparative and European legal analysis	Antonia Baraggia	Scholarship co-funded by Erion Compliance Organization under Ministerial Decree 630/24
15	Analysis of national and local European programmes in favour of the new social economy, social innovation, technology transfer between research and the third sector specifically on issues such as social inclusion, sustainability, protection of rights	Maria Elisa D'Amico	Scholarship co-funded by Fondazione Triulza under Ministerial Decree 630/24
16	The impact of the EU Artificial Intelligence act (AIA) in the world of Italian companies in	Cecilia Siccardi	Scholarship co-funded by A2A S.p.A. under Ministerial Decree 630/24



	order to comply with its provisions		
17	Assessing AI compliance in light of the new European regulatory framework	Paolo Ceravolo	Scholarship co-funded by A2A S.p.A. under Ministerial Decree 630/24
18	Quantum error correction for edge and distributed quantum computing	Enrico Prati	Scholarship co-funded by Leonardo S.p.A. under Ministerial Decree 630/24
19	Artificial intelligence for network orchestration and edge cloud continuum	Ernesto Damiani	Scholarship funded by TIM S.p.A.
20	Agile methodology: a comprehensive study of the real benefits	Francesca Biondi	Scholarship funded by A2A S.p.A.
21	Epidemiological study and innovative clinical management of clostridioides difficile infections in frail patients admitted to internal medicine wards	Gianmarco Podda	Place reserved (as per art. 13 of this call) for employees of: ASST Santi Paolo e Carlo
22	Multi-omics analysis of ocular fluids and serum from retinitis pigmentosa patients: potential	Luca Rossetti	Place reserved (as per art. 13 of this call) for employees of: ASST Santi Paolo e Carlo



	biomarkers of the disease		
23	Clinical-instrumental assessment of the diaphragm and peripheral muscles in subject with respiratory disease	Alessandro Palleschi	Place reserved (as per art. 13 of this call) for employees of: IRCCS Ca' Granda Ospedale Maggiore Policlinico
24	Preservation of liver grafts from marginal donors: the role of ex-situ perfusion	Alberto Zanella	Place reserved (as per art. 13 of this call) for employees of: IRCCS Ca' Granda Ospedale Maggiore Policlinico
25	Audiology in Aerospace Medicine: Tools for Clinical, Genetic, and Otoneurological Diagnosis	Federica Di Berardino	Place reserved (as per art. 13 of this call) for employees of: IRCCS Ca' Granda Ospedale Maggiore Policlinico
26	New multidisciplinary approaches in public health for the management and specialized counseling of patients with early diagnosis of autism spectrum disorder (ASD): focus on the prevention of oral cavity diseases	Massimo Del Fabbro	Place reserved (as per art. 13 of this call) for employees of: ASST Valle Olona
27	Fiscal policy analysis and distributive effects on income of individuals and families	Carlo Fiorio	Place reserved (as per art. 13 of this call) for employees of: PoliS-Lombardia – Regional Institute for Lombardy Policy Support



28	Application of modelling and data collection assisted by unmanned aerial vehicles (UAVs) to glacier risk monitoring and management	Antonella Senese	Place reserved (as per art. 13 of this call) for employees of: Fondazione Montagna sicura-Montagne sûre
29	ARTs as avant-garde tools to improve the efficiency of livestock breeding: investigation of the equine embryos morphokinetics using a timelapse monitoring system and artificial intelligence	Alberto Maria Luciano	Place reserved (as per art. 13 of this call) for employees of: Avantea srl
30	Climate changes and slope stability in Alpine environment	Tiziana Apuani	Place reserved (as per art. 13 of this call) for employees of: MUSE — Science Museum
31	New technologies and perspectives of change in cities	Maria Elisa D'Amico	Place reserved (as per art. 13 of this call) for employees of: Municipality of Milan
32	Development of novel tumor-targeted small molecule therapeutics	Giulio Vistoli	Place reserved (as per art. 13 of this call) for employees of: Philochem AG
33	New actors and new sectors of activity of mafia organised crime. National and EU	Fabio Basile	Place reserved (as per art. 13 of this call) for employees of: Arma dei Carabinieri



	law enforcement tools		
34	Future of Work: the impact and prospects of Artificial Intelligence on work in the public sector	Maria Elisa D'Amico	Place reserved (as per art. 13 of this call) for employees of: Deloitte Risk Advisory s.r.l. SB

Duration

3 years

Starting date

1 November 2024

Places available

38

Places reserved for employees of companies and institutions pursuant to art. 13 of this call for applications, and to art. 10 of Ministerial Decree no. 226/2021:

1 for employees of ASST Santi Paolo e Carlo for the research project:

- Epidemiological study and innovative clinical management of clostridioides difficile infections in frail patients admitted to internal medicine wards. Scientific Director: Prof. Gianmarco Podda

1 for employees of ASST Santi Paolo e Carlo for the research project:

- Multi-omics analysis of ocular fluids and serum from retinitis pigmentosa patients: potential biomarkers of the disease. Scientific Director: Prof. Luca Rossetti

2 for employees of IRCCS Ca' Granda Ospedale Maggiore Policlinico for the research project:

- Audiology in Aerospace Medicine: Tools for Clinical, Genetic, and Otoneurological Diagnosis. Scientific Director: Prof. Federica Di Berardino

1 for employees of IRCCS Ca' Granda Ospedale Maggiore Policlinico for the research project:

- Clinical-instrumental assessment of the diaphragm and peripheral muscles in subject with respiratory disease. Scientific Director: Prof. Alessandro Palleschi



1 for employees of IRCCS Ca' Granda Ospedale Maggiore Policlinico for the research project:

- Preservation of liver grafts from marginal donors: the role of ex-situ perfusion. Scientific Director: Prof. Alberto Zanella

2 for employees of ASST Valle Olona for the research project:

- New multidisciplinary approaches in public health for the management and specialized counseling of patients with early diagnosis of autism spectrum disorder (ASD): focus on the prevention of oral cavity diseases. Scientific Director: Prof. Massimo Del Fabbro

1 for employees of Polis-Lombardia – Regional Institute for Lombardy Policy Support for the research project:

- Fiscal policy analysis and distributive effects on income of individuals and families. Scientific Director: Prof. Carlo Fiorio

1 for employees of Fondazione Montagna sicura-Montagne sûre for the research project:

- Application of modelling and data collection assisted by unmanned aerial vehicles (UAVs) to glacier risk monitoring and management. Scientific Director: Prof. Antonella Senese

1 for employees of Avantea srl for the research project:

- ARTs as avant-garde tools to improve the efficiency of livestock breeding: investigation of the equine embryos morphokinetics using a timelapse monitoring system and artificial intelligence. Scientific Director: Prof. Alberto Maria Luciano

1 for employees of MUSE – Science Museum for the research project:

- Climate changes and slope stability in Alpine environment. Scientific Director: Prof. Tiziana Apuani

3 for employees of the Municipality of Milan for the research project:

- New technologies and perspectives of change in cities. Scientific Director: Prof. Maria Elisa D'Amico

1 for employees of Philochem AG for the research project:



- Development of novel tumor-targeted small molecule therapeutics. Scientific Director: Prof. Giulio Vistoli

1 for employees of the *Arma dei Carabinieri* for the research project:

- New actors and new sectors of activity of mafia organised crime. National and EU law enforcement tools. Scientific Director: Prof. Fabio Basile

1 for employees of Deloitte Risk Advisory s.r.l. SB for the research project:

- Future of Work: the impact and prospects of Artificial Intelligence on work in the public sector: Prof. Maria Elisa D'Amico

Scholarships

9 Ministerial Decree 629/24 - Public Administration (CUP G43C24001100006)

1 Ministerial Decree 629/24 - Digital Transition (CUP G43C24001110006)

8 Ministerial Decree 630/24 (CUP G43C24001090006)

1 scholarship funded by TIM S.p.A. for the research project: "Artificial intelligence for network orchestration and edge cloud continuum"

1 scholarship funded by A2A S.p.A for the research project: "Agile methodology: a comprehensive study of the real benefits"

Doctoral programme coordinator

Prof. Ernesto Damiani, full professor in scientific-disciplinary sector INF/01

ernesto.damiani@unimi.it

Admission requirements

Master's degree of any class

Selection stages - Doctoral programme in Intersectoral Innovation

Submission of applications

By 2 pm on 22 July 2024

Qualification assessment

Qualifications will be assessed starting from 1 August 2024.



The assessment outcome will be posted on the [University website](#), on the programme webpage, before the start date of the interviews.

Interviews

Interviews will be held starting from 3 September 2024.

The interview schedule – specifying the place, date and time of the interview for each applicant and the interview mode (in person or online) – will be posted on the [University website](#), on the programme webpage.

The interview can be in Italian or English, at the applicant's choice. English proficiency will be assessed anyway.

The above-mentioned posting constitutes notification to the interested parties.



Annex A

DICHIARAZIONE SOSTITUTIVA DI ATTO NOTORIO

Self drafted affidavit (art. 47 del DPR n° 445/2000)
(art. 47 Presidential Decree n. 445/2000)

Il sottoscritto/the undersigned

cognome/surname _____ nome/name _____

nato a/born in _____ il/on _____

consapevole delle sanzioni penali richiamate dall'articolo 76 del Dpr 445/2000 in caso di dichiarazioni non veritiere e falsità in atti

aware that providing false data and using fake documents are crimes punishable by law (art. 75 and 76 of the Presidential Decree no. 445/2000)

**dichiara sotto la propria personale responsabilità
declares under his/her own responsibility**

che le pubblicazioni/ i titoli sotto elencati, prodotti in copia tramite upload, sono conformi all'originale.

that the publications and the qualifications listed below, produced as copies, comply with the originals.

Milano, _____

Data/date

Firma/Signature

Ai sensi dell'art. 3 del DPR 445/2000 l'autocertificazione può essere utilizzata solo dai cittadini appartenenti all'Unione europea. I cittadini non europei devono produrre documenti originali o in copia autenticata secondo la normativa vigente.

According to the art. 3 of the Presidential Decree no. 445/2000, only Eu citizens are entitled to use this form. Non Eu citizens must submit the original documentation or photocopies authenticated in compliance with the law in force.

Form 1

TEMA DI RICERCA - LETTERA DI MOTIVAZIONI

RESEARCH THEME - MOTIVATION LETTER

Cognome: Surname:	
Nome: Name:	
Firma del/la candidato/a: Applicant's signature:	

a) Selezione dei temi di ricerca

Le posizioni del dottorato industriale "Intersectoral Innovation - dottorato intersettoriale per l'innovazione" sono tutte vincolate alle linee di ricerca riportate nel bando. Il/la candidato/a deve compilare la sottostante tabella con almeno un tema di ricerca, fino ad un massimo di 5, indicando i codici delle linee di ricerca riportati nel bando.

I codici dal n. 21 al n. 34 sono riservati ai dipendenti delle imprese e degli enti convenzionati, ai sensi dell'art. 13 del presente bando.

a) Research themes selection

The places available of the "Intersectoral Innovation" PhD course are all bounded to the research themes reported in the call. In the table below, the applicant must indicate at least one research theme up to a maximum of 5 indicating the research title's code reported in the call.

Codes from n. 21 to n. 34 are reserved for employees of affiliated companies, in accordance with article 13 of this call.

Codici delle linee di interesse del/la candidato/a Vedi scheda del corso Codes of the themes of interest to the candidate Refer to PhD description sheet	Indicare almeno uno e fino ad un massimo di 5 codici Insert at least 1 and up to 5 codes you are interested in	
	1.	
	2.	
	3.	
	4.	
	5.	

b) Lettera di motivazioni

Il/la candidato/a scriva una lettera (lunga almeno 3500 caratteri, spazi inclusi) nella quale illustri i motivi della sua partecipazione al concorso di ammissione al dottorato Intersectoral Innovation. In particolare:

1. illustri, facendo riferimento ad almeno uno dei temi di ricerca selezionati, come le sue competenze e conoscenze precedenti potrebbero essere utili al progetto di ricerca;

2. illustri, sempre facendo riferimento ad almeno uno dei temi di ricerca selezionati, quali conoscenze e quali competenze pensa che potrà acquisire alla fine del triennio del dottorato;
3. illustri perché ritiene utile intraprendere un corso di studi di dottorato;
4. altri elementi che ritiene possano essere utili alla commissione esaminatrice per l'ammissione.

b) Motivation letter

The applicant must provide a letter (of at least 3500 characters, including spaces) explaining the reasons of her/his participation to the selection of the PhD course "Intersectoral Innovation". In particular:

1. With reference to at least one of the research themes selected, how her/his previous competences and knowledge could be useful to the research project;
2. Always with reference to at least one of the research themes selected, which competences and knowledge she/he thinks will acquire at the end of the three-years PhD course;
3. Explain why she/he considers useful to participate in a PhD course;
4. Other elements she/he thinks could be useful to the selection committee.

c) DA COMPILARSI SOLO SE SI PRESENTA DOMANDA DI AMMISSIONE PER POSTI RISERVATI / THIS FORM MUST BE FILLED ONLY BY THOSE APPLYING FOR RESERVED POSITIONS

AUTOCERTIFICAZIONE

Self-drafted affidavit art. 47 del DPR n° 445/2000/art. 47 Presidential Decree n. 445/2000

Il sottoscritto/the undersigned

cognome/surname _____ nome/name _____

nato a/born in _____ il/on _____

consapevole delle sanzioni penali richiamate dall'articolo 76 del Dpr 445/2000 in caso di dichiarazioni non veritiere e falsità in atti

aware that providing false data and using fake documents are crimes punishable by law (art. 75 and 76 of the Presidential Decree no. 445/2000)

**dichiara sotto la propria personale responsabilità
declares under his/her own responsibility**

- che al momento della presentazione della domanda di ammissione al presente bando risulta essere dipendente dell'Impresa/Ente

that at the time of submitting the application for admission to this call for applications, he/she is an employee of the Company

Milano, _____

Data/date

_____ Firma/Signature

Ai sensi dell'art. 3 del DPR 445/2000 l'autocertificazione può essere utilizzata solo dai cittadini appartenenti all'Unione europea. I cittadini non europei devono produrre documenti originali o in copia autenticata secondo la normativa vigente. According to the art. 3 of the Presidential Decree no. 445/2000, only Eu citizens are entitled to use this form. Non Eu citizens must submit the original documentation or photocopies authenticated in compliance with the law in force.

Form 3

RICHIESTA COLLOQUIO TELEMATICO - ONLINE INTERVIEW

DA COMPILARSI SOLO SE IL COLLOQUIO PER L'AMMISSIONE È PREVISTO IN PRESENZA DAL BANDO E IL CANDIDATO È IMPOSSIBILITATO A PRESENTARSI

THIS FORM MUST BE FILLED ONLY BY APPLICANTS WHO ARE UNABLE TO SIT THE INTERVIEW ON THE UNIVERSITY PREMISES AS REQUIRED BY THE PHD ADMISSION CALL

IL/LA SOTTOSCRITTO/A - THE UNDERSIGNED

(COGNOME/SURNAME) _____

(NOME/NAME) _____

PASSAPORTO O CARTA D'IDENTITÀ/PASSPORT OR IDENTIY CARD n° _____

EMAIL _____

RICHIEDE DI SOSTENERE L'ESAME DI AMMISSIONE AL DOTTORATO IN MODALITÀ TELEMATICA/

REQUESTS TO TAKE THE PHD ADMISSION EXAM REMOTELY

PER I SEGUENTI MOTIVI /FOR THE FOLLOWING REASONS:

DATA/DATE

FIRMA DEL RICEDENTE /
SIGNATURE OF THE APPLICANT
