



## Public Competition for Admission to Doctoral Research Programmes at the University of Milan a.y. 2020/2021.

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Dir. DF/FTLI

## **PUBLIC COMPETITION FOR ADMISSION TO DOCTORAL RESEARCH PROGRAMMES AT THE UNIVERSITY OF MILAN - A.Y. 2020/2021.**

### **THE RECTOR**

- having regard to Italian 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 Italian Law No. 210, dated 3 July 1998, as amended by art. 19, paragraph 1, of Italian Law No. 240 dated 30 December 2010;
- having regard to Italian 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 Italian Ministerial Decree No. 45 dated 8 February 2013, "Regulation containing the accreditation methods of the locations and doctoral programmes and the criteria for the institution of doctoral programmes by accredited bodies";
- having regard to the Statute of the University of Milan, issued through Rectoral decree on 15 March 2012, as amended;
- having regard to the University Regulations regarding research doctorates issued by Rector's decree of 5 June 2015, as amended;
- having regard to the Ministerial decrees protocol no. 004 of 10 January 2017, protocol no. 808 of 28 November 2018, and protocol no. 917 of 15 October 2019, whereby the Ministry of Education, Universities and Research (MIUR), pursuant to Ministerial Decree 45/2013, grants five-year accreditation to the doctoral research programmes proposed by the University of Milan, subject to compliance with the prescribed requirements;
- having regard to the fact that for the 2020/2021 academic year the University intends to institute a new cycle of doctoral programmes;
- having regard to the note of Ministry of Universities and Research (MUR) protocol no. 7757 of 11 March 2020;
- having regard to the decisions of the Academic Senate and of the Board of Directors in the session of 31 March 2020, concerning institution of the 36<sup>th</sup> doctoral cycle;

### **HEREBY DECREES**



## Art. 1 - Institution of Doctoral Research Programmes

The following doctoral research programmes, subject to accreditation by MUR and checks to verify that accreditation requirements have been maintained, are instituted at the University of Milan for academic year 2020/2021 (36th cycle)

- Agricoltura, ambiente e bioenergia - Agriculture, environment and bioenergy
- Biologia molecolare e cellulare - Molecular and cellular biology
- Chimica - Chemistry
- Chimica industriale - Industrial chemistry
- Diritto comparato, privato, processuale civile e dell'impresa - Comparative, private and civil procedural law
- Diritto pubblico, internazionale ed europeo - Public, international and European Union law
- Filosofia e scienze dell'uomo - Philosophy and human sciences
- Informatica - Computer science
- International and public law, ethics and economics for sustainable development - LEES
- Medicina sperimentale - Experimental medicine
- Medicina traslazionale - Translational medicine
- Mente, cervello e ragionamento - Mind, Brain and Reasoning
- Scienze ambientali - Environmental sciences
- Scienze del patrimonio letterario, artistico e ambientale - Literature, arts and environmental heritage
- Scienze della nutrizione - Nutritional sciences
- Scienze della terra - Earth sciences
- Scienze farmaceutiche - Pharmaceutical sciences
- Scienze farmacologiche biomolecolari, sperimentali e cliniche - Pharmacological biomolecular sciences, experimental and clinical
- Scienze per i sistemi alimentari - Food systems
- Scienze per la sanità pubblica - Public health sciences
- Scienze veterinarie e dell'allevamento - Veterinary and animal science
- Sociologia economica e studi del lavoro - Economic sociology and labour studies
- Studi linguistici, letterari e interculturali in ambito europeo ed extra-europeo - Linguistic, literary and intercultural studies in European and extra-European perspectives
- Studi storici - Historical studies



Public competitions for admission to the above doctoral research programmes, based on qualifications and exams, are hereby announced by the University of Milan; the tables annexed to this decree, which are an integral part of this document, contain a brief description of the programmes, the examination window and the links to the university website where the research topics identified by the academic board of each programme, in line with the objectives of the programme, its research and educational focus, can be found. The criteria on which the selection of research topics is based are indicated in art. 21 of the University Regulations for doctoral study.

The number of scholarships may be increased should external funding become available before the deadline of the call for submission of applications.

Foreign candidates 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**

In order to apply for a place in the doctoral research programmes, students must have a second cycle degree, an equivalent qualification, or an equivalent qualification by study level (*Master's Degree*) from a foreign University.

The suitability of the foreign academic qualifications in terms of content is appraised by the Examining Committee of each doctoral programme, in compliance with the regulations in force in Italy and in the country in which the academic qualification was issued, and the international treaties or agreements pertaining to the conferment of qualifications for the continuation of studies.

Those without a second cycle degree may also apply, but admission to the doctoral research programme is subject to completing the second cycle degree by 31 October 2020, failing which they will be excluded from the programme.

## **Art. 3 - Application for admission**

Applications must be submitted through the following procedure by no later than **2 pm on 14 September 2020**:

1. register onto the [the University portal](#). This operation is not required of those already registered on the portal or in possession of University access credentials (graduands or those who graduated from the University of Milan less than a year ago);
2. Login and submit an application for admission to the Doctoral programme admission services - [Servizio di ammissione dottorati di ricerca](#);
3. Pay a non-refundable fee of €50 for selection costs.

During the procedure applicants are required to **upload** the following **documents** as .pdf, .rtf or .jpg files, all under 10 MB:



- A. Diploma Supplement, issued by the University according to European Commission, Council of Europe and UNESCO/CEPES standards, or degree certificate in Italian or English from the University of provenance, indicating exams taken, corresponding grades and credits. This document is not required of graduates/undergraduates of the University of Milan since it will be acquired internally;
- B. CV, describing any professional experience and other qualifications held by the applicant;
- C. Research project (using Form 1 attached hereto);
- D. Copy of passport (foreign applicants only);
- E. Any publications;
- F. Annex A.

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

Self-certifications are accepted in the cases and in accordance with the methods provided for by the laws in force.

**Failure to submit any one of the above-mentioned documents (from A to C) will lead to exclusion from the competition.**

Qualifications and scientific publications may be submitted in Italian or English.

In addition to the above documentation, on request by the academic board and as specified in the programme tables, applicants must provide one or more reference letters, drafted according to Form 2 attached hereto, from qualified persons who have had a role in their education. The reference letters in .pdf must be e-mailed directly by said persons to the email address indicated in the section regarding the relevant doctoral programme by the competition deadline. In any case candidates may include reference letters written as indicated above with their application. Reference letters are considered part of the candidate's curriculum and no point score is assigned to them.

It is possible to apply for any number of doctoral programmes, provided that the applicant registers properly for each, as described above, including payment of the non-refundable fee of €50 for each application submitted.

#### **Art. 4 - Provisions for disabled applicants**

In compliance with Article 20 of Italian Law no. 104 dated 5 February 1992, if they deem it necessary, disabled applicants may request special aids and/or additional time for the competition exam. To this end, they must submit a specific declaration of disability or of Learning Disability (form available at the University webpage *Modulistica generale* - general forms), along with a medical certificate attesting to the validity of the request.



Scanned copies of the form and documentation must be uploaded during the online application procedure.

## Art. 5 - Admission exam

Admission to the doctoral programmes is through a public selection procedure involving the evaluation of qualifications and tests for the comparative assessment of candidates. An Examining Committee set up and appointed in compliance with current regulations will carry out the procedure.

The selection procedure aims to ascertain the qualifications, capacity and aptitudes of candidates for scientific research and their personal motivations. It is based on assessment of the **CV**, a **research project**, which may be inspired by the work of the second cycle degree thesis, and an **online interview**. The research project, which should be drafted using a standard model ([Form 1 attached hereto](#)), is only for selection purposes and does not limit the choice of doctoral thesis in the case of admission.

The CV and research project are assessed before the interview. The outcome of the assessment is available on the University portal.

The CV is evaluated on the basis of the candidate's university studies, publications, professional experience and other qualifications, if any. A **maximum score of 20 points** can be assigned to the **CV**. In assigning the points the committees consider the statistical distribution of exam grades for the study programme courses, as well as the conditions and the period over which the candidate has obtained his/her qualifications.

**A maximum of 10 points** can be assigned to the **research project**.

Candidates who obtain a score of at least 50% of the maximum points obtainable for the CV and the research project can be called for interview.

The interview is public; the date is indicated in the University portal. The aim is to verify the candidate's knowledge of the field of the doctorate. The interview includes a seminar-style presentation of the research project, followed by general discussion to verify the candidate's expertise, scientific qualities and motivations. A maximum of 70 points may be assigned to the interview.

The interview is conducted in the language indicated in the doctoral programme table, but candidates may ask to be interviewed in English. Anyway, English language proficiency will be assessed during the interview.

Before the interview, candidates for the doctoral programme in *Linguistic, literary and intercultural studies in European and extra-European perspectives* must sit for a test of their proficiency in the language of specialisation indicated in the research project. The test serves to determine whether or not the candidate is eligible to enrol in the programme.

To sit for the tests, candidates must show one of the following identity documents: identity card; passport; driving licence (Italian).



At the end of each interview session, the Committee makes a list of the candidates examined and their point scores. The outcome of the interviews will be notified at the end of each day.

At the end of the tests, the Committee draws up a general ranking list according to the total score assigned to the candidates for their CV, research project and interview. **Candidates must obtain a minimum score of 70/100 to pass the admission exam.**

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

The Committees must conclude their work no later than **1 October 2020**.

## **Art. 6 - Admission to the programmes**

Applicants are admitted to the programmes according to their position in the ranking list until the number of places available for each doctoral programme has been filled. Where applicants achieve the same score, preference will be given to the younger applicant, with the exception of the right of priority criterion for doctoral grants set forth in art. 8 of this call for applications. The rankings of eligible applicants will be published in the days following the interviews on the University website [Postgraduate admission rankings page](#).

**The ranking posted to the University website is equivalent to a notice. Therefore, admitted candidates will receive no written notice.**

Applicants admitted to the programmes lose their entitlement if they fail to enrol by the deadline. Their place is then given to the next applicant in the ranking list. This also applies if an admitted applicant withdraws within three months of the beginning of the programme. 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 Doctoral Students Administration Office (*Segreteria Dottorati*), which will provide instructions and deadlines for enrolment.

Applicants ranked in more than one list can only choose one doctoral programme.

Once the final rankings are published, non-EU citizens resident abroad who have been admitted to the doctoral programme will receive an e-mail (from [international.students@unimi.it](mailto:international.students@unimi.it)) with the admissions letter for obtaining a study visa.

## **Art. 7 - Enrolment**

Applicants admitted to doctoral programmes can enrol online **from 12 October 2020 to 2pm on 16 October 2020** using the [SIFA enrolment service](#) and following the procedures published on the [University website](#).

Candidates are admitted conditionally and may be excluded from the programme if they do not meet the requirements.

The annual tuition fee for a doctoral programme is €980.



Beneficiaries of doctoral scholarships granted by the University are exempted from payment of the fee.

Beneficiaries of scholarships from the Ministry of Foreign Affairs or from the regional education incentive programme (*Diritto allo Studio*), and applicants with invalidity greater than 66% and/or with recognised handicap according to Law 104/92, are exempted from payment of the doctoral programme admission and attendance fee and are only required to pay the sum of €156.00 covering the regional study tax, the accident insurance premium and stamp duty.

Students who withdraw from the doctoral programme are not entitled to reimbursement of enrolment fees already paid.

**Applicants who hold a foreign academic qualification** must also show the originals (and provide a copy) of the following documents to the International Students office (Via Santa Sofia no. 9/1 - 20122 Milan) **by the enrolment date**:

- a) University qualification;
- b) Italian translation of the qualification, done by an official translator and certified in accordance with existing regulations;
- c) "Dichiarazione di valore in loco" (Statement of Validity) to be requested from the Italian diplomatic office in the country in which the qualification was awarded;
- d) Italian tax identification number (*codice fiscale*);
- e) residence permit (non-EU applicants only).

The documents in paragraph b) and c) may be replaced by a Diploma Supplement issued by the University in accordance with European Commission, Council of Europe and UNESCO/CEPES standards or by any other statement of validity issued by ENIC\_NARIC centres or by diplomatic offices in Italy. The University reserves the right to request the "certificate of equivalence of qualification" where any doubt arises regarding the validity of the qualification.

Verification of the validity of foreign qualifications is made on submission of the official documents.

## Art. 8 - Scholarships

The scholarship is granted, in accordance with and by the methods established by existing regulations, in line with the ranking list and consists of an annual gross sum of **€16,350.00**. The amount of the scholarship is exempt from IRPEF income tax in accordance with art. 4 of Italian Law no. 476 of 13 August 1984 but subject to social security contributions pursuant to article 2, paragraph 26 et seq., of Italian Law no. 335 of 8 August 1995 and subsequent amendments.

In the event of equal merit, the scholarships are assigned on the basis of the candidates' economic situation, as expressed by the indicator of equivalent economic situation (ISEE).



The regional study tax and an expenses charge will be deducted from the scholarship for a total sum of €156.00.

Scholarships have a yearly duration and are renewed if the Teaching Board promotes the doctoral student to the following year on the basis of yearly performance.

Starting from the second year, in addition to the scholarship and depending on the University's budgeted financial resources, each doctoral student is given an amount for research in Italy and abroad suited to the type of programme and in any case not less than 10% of the amount of the scholarship itself.

## **Art. 9 - Obligations of Doctoral Students**

The doctoral research programmes entail 1500 hours of training-education and research activities per year. The duties and rights of students are set out in art. 22 of the University Regulations on doctoral research.

## **Art. 10 - Awarding of Qualification**

The qualification of Doctor of Philosophy, abbreviated as "Dott. Ric" or "PhD", is awarded under the conditions indicated in art. 23 of the University Regulations on Doctoral Research.

## **Art. 11 - 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 EU Regulation no. 679/2016 (General Data Protection Regulation, GDPR) the University undertakes to safeguard the confidential nature of the information provided by applicants; all data provided is processed solely for purposes related to the competition and possibly for managing the applicant's relationship with the University, in compliance with current legislation.

## **Art. 12 - Relevant regulations**

Any items for which no specific provision has been made in this call for applications are regulated in accordance with Italian legislation and regulations governing doctoral research.

## **Art. 13 - Person in charge of the procedure and contacts**

Pursuant to Law no. 241 of 7 August 1990, the person in charge of the present competition is dott.ssa Monica Delù (Head of the Doctoral Students Administration Office).

For further information please use the [Infostudenti](#) service, selecting the category: Postgraduates/Doctoral research students.

Milan, 7 July 2020

THE RECTOR  
(Elio Franzini)



## Doctoral Programme in Agriculture, Environment and Bioenergy

### Learning objectives

Our planet is experiencing a decline in its non-renewable resources and is exposed to risks deriving from climate change. The agricultural sector must supply food, non-food products, ecosystem services and energy, whilst guaranteeing safety and food sovereignty. It is therefore essential to develop advanced training courses in order to achieve efficiency and sustainability in the agricultural sector and its various territorial contexts, taking into account the various elements of the production system and their organisation in agro-ecosystems. Reference will be made to:

- a) phenotypic and genotypic features and the valorisation of genetic resources;
- b) containment of biotic and abiotic adversities;
- c) implementation of predictive IT models;
- d) bioenergy production, use of residual substances, soil and water resource conservation;
- e) analysis and management of technical means, agricultural processes, multi-functionality of rural areas and of agrobiodiversity.

The programme will enable researchers to:

- a) develop autonomous research;
- b) prepare and propose public and private research projects on a local, national and international level;
- c) identify research needs and their scientific, social and economic relevance;
- d) transfer knowledge through teaching activities and the presentation of data and results;
- e) transfer research results to the public and private sphere.

The programme is entirely in English.

### Academic disciplines

05/A (Plant Biology)

07/A (Agricultural Economics and Rural Surveying)

07/B (Agricultural and Forestry Cultivation Systems)

07/C (Agricultural, Forestry and Biosystems Engineering)

07/D (Plant Pathology and Entomology)

07/E (Agricultural Chemistry and Genetics and Pedology)

07/G (Animal Science and Technology)



## Research topics

See the areas of research on the [University website](#)

## Duration

3 years

## Places available

7

## Scholarships

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## Doctoral programme coordinator

Prof. Daniele Bassi, full professor in scientific-disciplinary sector AGR/03, [daniele.bassi@unimi.it](mailto:daniele.bassi@unimi.it)

## Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

- LM-3 Landscape Architecture,
- LM-6 Biology,
- LM-7 Agricultural Biotechnology,
- LM-8 Industrial Biotechnology,
- LM-9 Medical, Veterinary and Pharmaceutical Biotechnology,
- LM-17 Physics,
- LM-18 Computer Science,
- LM-26 Security Engineering,
- LM-30 Energy and Nuclear Engineering,
- LM-32 Computer Engineering,
- LM-33 Mechanical Engineering,
- LM-35 Environmental and Land Engineering,
- LM-40 Mathematics,
- LM-42 Veterinary Medicine,
- LM-44 Mathematical-Physics Models for Engineering,
- LM-48 Regional, Urban and Environmental Planning,
- LM-56 Economics,
- LM-60 Natural Sciences,
- LM-69 Agricultural Science and Technology,
- LM-70 Food Science and Technology,
- LM-73 Forestry and Environmental Science and Technology,
- LM-74 Geological Science and Technology,
- LM-75 Environmental and Land Sciences and Technology,



LM-76 Environmental and Cultural Economics,  
LM-77 Economics and business,  
LM-81 Development cooperation,  
LM-82 Statistics,  
LM-86 Zootechnics and animal technology.

## Doctoral programme selection phases - Agriculture, Environment and Bioenergy

<i>Qualification assessment date</i>	<p>The assessment will take place on 21 September 2020. The assessment outcome will be posted to the University website by the interview start date.</p>
<i>Interviews</i>	<p><b>Online interviews will be held from 24 to 30 September 2020.</b></p> <p>All candidates will have the interview in English.</p> <p>Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.</p> <p>Online posting is equivalent to a notice to the persons concerned.</p>



## Doctoral Programme in Molecular and Cell Biology

### Learning Objectives

The doctoral programme aims to:

- train scientific experts with excellent skills in the field of biomolecular sciences and biotechnology;
- promote a molecular approach to the study of complex biological problems in model organisms (prokaryotic and eukaryotic microorganisms, animals and plants);
- encourage collaboration between research institutes, advanced training schools and companies in the fields of biomolecular sciences and biotechnology;
- encourage internationalisation by promoting international scientific collaborations, involving foreign lecturers, recruiting postgraduate students from abroad, and organising co-tutored dissertations involving study periods abroad.

Training activities will be characterised by:

- a multidisciplinary approach;
- interactivity;
- links to the business world;
- internationalisation.

A key element of the programme is the direct involvement of doctoral students in experimental research activities. Students will work full-time on a research project, providing critical insight and suggestions, and thereby acquiring scientific and organisational independence.

The programme is entirely in English.

### Academic disciplines

01/B (Computer Science)

02/D (Applied physics, teaching and history of physics)

05/A (Plant Biology)

05/B (Animal Biology and Anthropology)

05/D (Physiology)

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

05/F (Applied Biology)

05/G (Experimental and Clinical Pharmaceutical Sciences)

05/H (Human Anatomy and Histology)

05/I (Genetics and Microbiology)

06/A (Pathology and Laboratory Diagnostics)



## Research topics

Research topics may be viewed on the [University website](#)

## Duration

3 years

## Places available

10

## Scholarships

8 University of Milan

2 for completing the Department of Biosciences project funded by MIUR as part of the *Bando Dipartimenti di Eccellenza 2018-2022*, pursuant to Law no. 232 dated 11 December 2016.

## Doctoral programme coordinator

Prof. Martin Kater, full professor in scientific-disciplinary sector BIO/18 [martin.kater@unimi.it](mailto:martin.kater@unimi.it)

## Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-6 Biology,

LM-7 Agricultural Biotechnology, LM-8 Industrial Biotechnology,

LM-8 Industrial Biotechnology,

LM-9 Medical, Veterinary and Pharmaceutical Biotechnology,

LM-11 Conservation and Restoration of Cultural Heritage,

LM-13 Pharmacy and Industrial Pharmacy,

LM-17 Physics,

LM-18 Computer Science,

LM-21 Biomedical Engineering,

LM-22 Chemical Engineering,

LM-25 Automation Engineering,

LM-26 Security Engineering,

LM-31 Engineering Management,

LM-32 Computer Engineering,

LM-35 Environmental and Land Engineering,

LM-40 Mathematics,



LM-41 Medicine and Surgery,  
LM-42 Veterinary Medicine,  
LM-44 Mathematical and Physical Modelling for Engineering,  
LM-46 Dentistry and Dental prosthetics,  
LM-47 Organisation and Management of Services for Sports and Exercise,  
LM-48 Regional, Urban and Environmental Planning,  
LM-51 Psychology,  
LM-52 International Relations,  
LM-53 Materials Science and Engineering,  
LM-54 Chemistry,  
LM-56 Economics,  
LM-58 Universe Sciences,  
LM-59 Public and Corporate and Advertising and Communication,  
LM-60 Natural Sciences,  
LM-61 Nutrition,  
LM-66 Informatics Security,  
LM-67 Science and Techniques of Preventive and Adapted Motor Activities,  
LM-68 Sports Sciences and Technology,  
LM-69 Agricultural Sciences and Technology,  
LM-70 Food Science and Technology,  
LM-71 Industrial Chemistry,  
LM-73 Forestry and Environmental Science and Technology,  
LM-74 Geological Sciences and Technology,  
LM-75 Environment and Land Science and Technology,  
LM-76 Environmental and Cultural Economics,  
LM-78 Philosophy,  
LM-79 Geophysics,  
LM-82 Statistics,  
LM-86 Zootechnics and animal technology,  
LM-91 Techniques and Methods for Information Society,  
LM-92 Communication Theory,  
LM-93 E-learning and Media Education Theories and Approaches,  
LM/SNT1 Nursing and Midwifery,  
LM/SNT2 Rehabilitation Professions,



LM/SNT3 Health Professions for Technical Assistance,  
LM/SNT4 Preventive Care Professions

## Doctoral programme selection phases - Molecular and Cell Biology

### *Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

All candidates will have the interview in English. The research project will be illustrated through a Powerpoint presentation. Each candidate will have a 10-minute slot.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Chemistry

### Learning objectives

The doctoral programme aims to train students in the critical analysis of scientific research problems in the field of chemistry, and to provide them with the skills required to identify and pursue important research objectives. The programme is designed to develop professionals who will be able to work in industry, in private and public institutions, and in academia.

Students will acquire all the knowledge and working methods necessary to carry out research activities to very high scientific standards in any of the numerous interdisciplinary fields of Chemistry. The central role of Chemistry in modern life is widely acknowledged today. This field of science intersects with several other scientific disciplines (such as physics and biology) and therefore finds application in many different fields, from medicine to nanomaterials, from agriculture to energy, from biology to electronics, from cultural heritage conservation to environmental protection. The input of advanced chemical research is essential in many other scientific disciplines and for the development of production in modern countries.

Doctoral programmes in Chemistry are offered in the following lines of research:

1. Synthesis, reactivity, reaction mechanisms, catalysis;
2. Structural chemistry, spectroscopic analysis;
3. Theoretical and computational chemistry;
4. Solid-state, interphase and electrolyte chemistry,
5. Chemistry of biologically active compounds, food and natural substances, biocatalysis;
6. Chemistry of the environment and of cultural heritage;
7. Chemistry of materials, chemistry for nanotechnologies, supramolecular chemistry, chemistry for energy.

An important aspect of the programme is that students meet foreign researchers and come into contact with internationally renowned research institutes. To this end, a significant part of teaching activities is assigned to foreign lecturers and students are given the opportunity to spend time in research institutions abroad.

The doctoral programme is entirely in English.

### Academic disciplines

03/A (Analytical, chemical-physical)

03/B (Inorganic, technological)

03/C (Organic, industrial)

03/D (Pharmaceutics, Technology, Food)



## Research topics

Research topics may be viewed on the [University website](#)

## Duration

3 years

## Places available

11

## Scholarships

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1 funded by the Chemistry Department for the programme “Implementation of semiclassical theories for spectroscopy”

1 funded by the Italian Social Security Institute (Istituto Nazionale della Previdenza Sociale, INPS) as part of the public competition: *“Dottorati di ricerca in materia di industria 4.0; sviluppo sostenibile; welfare e benessere, per l’erogazione di borse di studio in favore dei figli e orfani di: dipendenti e pensionati della pubblica amministrazione iscritti alla Gestione Unitaria delle Prestazioni creditizie e sociali; pensionati utenti della Gestione Dipendenti Pubblici” [PhDs in industry 4.0; sustainable development; welfare and well-being. Call for applications for scholarships for the children and orphans of: employees and pensioners of the public administration registered in Gestione Unitaria delle Prestazioni creditizie e sociali; retired users of Gestione Dipendenti Pubblici]*

## Doctoral programme coordinator

Prof. Emanuela Licandro, full professor in scientific-disciplinary sector CHIM/06  
[emanuela.licandro@unimi.it](mailto:emanuela.licandro@unimi.it)

## Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-6 Biology,

LM-7 Agricultural Biotechnology,

LM-8 Industrial Biotechnology,

LM-9 Medical, Veterinary and Pharmaceutical Biotechnology,

LM-10 Conservation of Architectural and Environmental Heritage,

LM-11 Cultural Heritage Conservation Sciences,

LM-13 Pharmacy and Industrial Pharmacy,



LM-17 Physics,  
LM-18 Computer Science,  
LM-21 Biomedical Engineering,  
LM-22 Chemical Engineering,  
LM-30 Energy and Nuclear Engineering,  
LM-32 Computer Engineering,  
LM-40 Mathematics,  
LM-53 Materials Science and Engineering,  
LM-54 Chemistry,  
LM-58 Universe Sciences,  
LM-60 Natural Sciences,  
LM-61 Nutrition,  
LM-69 Agricultural Science and Technology,  
LM-70 Food Science and Technology,  
LM-71 Industrial Chemistry,  
LM-74 Geological Sciences and Technology,  
LM-75 Environment and Land Sciences and Technology,  
LM-76 Environmental and Cultural Economics,  
LM-79 Geophysical Sciences.

### Reference letters

The academic board requires that two reference letters, drawn up according to [Form 2](#) attached hereto, be sent by email to the doctoral programme coordinator.

### Doctoral programme selection phases - Chemistry

#### *Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

#### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**  
The interview can be in Italian or English, at the candidate's choice. English language proficiency will be assessed anyway.



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Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Industrial Chemistry

### Learning objectives

The general theme of the doctoral programme relates to the extensive field of application of chemistry to industrial processes. It aims to train students in understanding theoretical and practical problems, as well as economic, environmental and safety issues. Graduates will possess considerable scientific expertise and be able to organise and manage research activities, as well as analyse the aspects pertaining to variations in scale. The main research areas are: physical chemistry and catalysis in industrial processes; industrial electrochemistry and corrosion; synthesis, properties and structure of polymers; synthesis and processes of fine chemistry; synthesis, processes and control in primary chemistry; chemical biotechnology; innovative chemical processes; new structural and functional materials; innovative energy technologies; nanotechnologies.

An important aspect of the programme is that students meet foreign researchers and come into contact with internationally renowned research institutes. To this end, some teaching activities are assigned to foreign lecturers and students are given the opportunity to spend time in research institutions abroad.

The programme is entirely in English.

### Academic disciplines

03/A (Analytical, chemical-physical)

03/B (Inorganic, technological)

03/C (Organic, industrial)

09/D (Chemical and Material Engineering)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

6

### Scholarships

5 University of Milan

1 funded by Istituto di Scienze e Tecnologie Chimiche (SCITEC), part of the Italian National Research Council (CNR), for the programme "Study, development and application of innovative



catalytic systems for the detection and decontamination of aggressive chemicals and explosive substances”.

### Doctoral programme coordinator

Prof. Dominique Roberto, full professor in scientific-disciplinary sector CHIM/03  
[dominique.roberto@unimi.it](mailto:dominique.roberto@unimi.it)

### Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-7 Agricultural Biotechnology,

LM-8 Industrial Biotechnology,

LM-9 Medical, Veterinary and Pharmaceutical Biotechnology,

LM-13 Pharmacy and Industrial Pharmacy,

LM-17 Physics,

LM-21 Biomedical Engineering,

LM-22 Chemical Engineering,

LM-30 Energy and Nuclear Engineering,

LM-53 Materials Science and Engineering,

LM-54 Chemistry,

LM-70 Food Science and Technology,

LM-71 Industrial Chemistry,

LM-75 Environmental and Land Sciences and Technology.

### Reference letters

The academic board requires that two reference letters, drawn up according to [Form 2](#) attached hereto, be sent by email to the doctoral programme coordinator.

### Doctoral programme selection phases - Industrial Chemistry

*Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

*Interviews*

**Online interviews will be held from 24 to 30 September 2020.**



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

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Comparative, Private, Civil Procedural and Business Law

### Learning objectives

The programme aims to promote scientific debate among experts who give the programme an interdisciplinary character while (given the links between the scientific sectors involved) providing a common perspective, so that discussion among jurists of differing competencies is fruitful and rich. Its main objective is that of adequately structuring and linking research training activities, focusing on comparative law with the aim of intensifying scientific debate among those studying private law, business law (in its two forms, commercial/industrial and occupational) and civil procedural law. Special attention is given to the formation of students in the methodological aspects of scientific research. The affinities among the various areas of legal studies addressed by the programme will allow for in-depth discussion during lecture series on cross-sector topics. As in the past, authorities in the field will be involved and collaborations with universities and foreign researchers will be intensified.

### Academic disciplines

12/A (Private law)

12/B (Commercial and labour law)

12/E (International, European Union, comparative, economic, market and maritime law)

12/F (Civil procedural law)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

6

### Scholarships

6 University of Milan

### Doctoral programme coordinator

Prof. Maria Teresa Carinci, full professor in scientific-disciplinary sector IUS/07  
[mariateresa.carinci@unimi.it](mailto:mariateresa.carinci@unimi.it)

### Curricula

1. Private Law
2. Comparative Law



3. Commercial and industrial Law
4. Labour Law
5. Civil procedural Law

## Admission requirements

Academic qualifications awarded in class LMG/01 Law (under Ministerial Decree 270/2004) or in one of the corresponding classes under Ministerial Decree 509/99.

## Doctoral programme selection phases - Comparative, Private, Civil Procedural and Business Law

### *Qualification assessment date*

The assessment will take place on 25 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

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

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Public, International and European Law

### Learning objectives

The doctoral programme contributes to the scientific and methodological development of topics addressed by integrating the various areas of research. Topics of study (and comparative study) include the foundations of constitutional law (nature and transformation of political representation, relationships among institutions, role of judges, protection of rights), as well as the complexity of modern administrative law. The latter increasingly involves cooperation among national, European and international administrations in a complex web of duties and responsibilities.

The programme aims to provide in-depth knowledge of research methodologies in the various areas of International Law, International Private and Procedural Law and European Union Law, from the perspective of both institutional profiles and material rights. The profound ongoing changes in the international community, the increase in transnational relations between individuals and businesses, and the increasing competencies of the European Union are such that the different aspects of legal research must be placed in an international and European context.

There are essentially three lines of study: a) protection of rights; b) the functioning of single institutions; c) the bases of rights from the perspective of the different areas of law addressed by the programme.

### Academic disciplines

12/C (Constitutional and ecclesiastical law)

12/D (Administrative and tax law)

12/E (International, European Union, comparative, economic, market and maritime law)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

7

### Scholarships

7 University of Milan



## Doctoral programme coordinator

Prof. Diana Urania Galetta, full professor in scientific-disciplinary sector IUS/10  
[dianaurania.galetta@unimi.it](mailto:dianaurania.galetta@unimi.it)

## Curricula

1. International and European Law
2. Constitutional and Administrative Law

## Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-19 Information and publishing systems,

LM-38 Modern languages for communication and international cooperation,

LM-48 Regional, urban and environmental planning,

LM-52 International Relations,

LM-59 Public and Corporate and Advertising and Communication,

LM-62 Political science,

LM-63 Public administration,

LM-77 Economics and business,

LM-78 Philosophy,

LM-81 Development Cooperation,

LM-87 Social services and policies,

LM-90 European studies,

LM-91 Techniques and methods for information society,

LMG/01 Law.

## Doctoral programme selection phases - International and European Public Law

### *Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**  
The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English



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language proficiency, and international students for Italian language proficiency.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Philosophy and Human Sciences

### Learning objectives

The doctoral programme in Philosophy and Human Sciences is a new higher education programme which integrates the skills required for theoretical and experimental research in disciplines such as anthropology, geography, linguistics, theory and history of political institutions, art theory and criticism, with the findings of philosophical research, both theoretical and historical. The multidisciplinary skills of the academic board will provide students with extensive knowledge in specific sectors of basic and applied research. It promotes innovative and cutting-edge research in areas requiring the ability to master theories, methods and techniques from various fields. In particular, the programme aims to provide students with a solid philosophical and scientific grounding in one of the following research areas: (i) History of Philosophical and Scientific Thought, (ii) Ethics and Politics, (iii) Image Theory and Phenomenology of Experience, (iv) Language Theory, (v) Anthropology and Regional Studies.

### Academic disciplines

10/G (Glottology and linguistics)

10/M (Germanic and Slavic Languages, Literature and Culture)

11/A (History)

11/B (Geography)

11/C (Philosophy)

11/D (Pedagogy)

14/A (Political Theory)

14/B (Political History)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

6

### Scholarships

3 University of Milan



2 scholarships for the “Piero Martinetti” Department of Philosophy project funded by the MIUR as part of the *Bando Dipartimenti di Eccellenza 2018-2022*, pursuant to Law no. 232 dated 11 December 2016.

1 funded by the “Piero Martinetti” Department of for the programme: “Aesthetics (1): Image and Visual Culture Theories; Media Studies; Cultural Studies; Virtual and Augmented Reality”

## Doctoral programme coordinator

Prof. Andrea Pinotti, full professor in scientific-disciplinary sector M-Fil/04  
[andrea.pinotti@unimi.it](mailto:andrea.pinotti@unimi.it)

## Admission requirements

All classes of master's degrees

## Reference letters

The academic board requires that one reference letter, drawn up according to [Form 2](#) attached hereto, be sent by email to [phd.filosofiaescienzedelluomo@unimi.it](mailto:phd.filosofiaescienzedelluomo@unimi.it).

## Doctoral programme selection phases - Philosophy and Human Sciences

### *Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Computer Science

### Learning objectives

The doctoral programme in Computer Science aims to provide students with advanced scientific, methodological and technological knowledge in computer science and related sectors and their corresponding fields of application. This knowledge will prepare students and introduce them to theoretical and applied research, with particular attention to interdisciplinarity and internationalisation, developing research skills so that they are able to produce original independent research of interest to the international scientific community and businesses.

The doctoral programme aims to provide students with:

- solid wide-ranging knowledge on the basics of science and methodologies and technologies pertinent to IT and related fields;
- advanced and in-depth skills in specific areas;
- interdisciplinary skills necessary to promote cultural and methodological synergies,
- sound knowledge of research methodologies and of how to organise and manage research and disseminate results;
- opportunities to train internationally;
- better training and placement within academic research groups and companies.

The programme is entirely in English.

### Academic disciplines

01/B (Computer science)

09/H (Computer engineering)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

12

### Scholarships

8 University of Milan

3 funded by TIM S.p.A. for the following programmes: “5G Edge-Cloud Architectures for Intensive Mobile & IoT Data Analytics”; “Smart Campaign Agent”; “Security in IoT: security of 5G-enabled ‘massive’ IoT”.



1 funded by the Istituto Italiano di Tecnologia (IIT) Foundation for the programme “Study of online learning algorithms”.

## Doctoral programme coordinator

Prof. Paolo Boldi, full professor in scientific-disciplinary sector INF/01 [paolo.boldi@unimi.it](mailto:paolo.boldi@unimi.it)

## Admission requirements

All classes of master's degrees

## Reference letters

The academic board requires that from 1 to 3 reference letters, drawn up according to [Form 2](#) attached hereto, be sent by email to [phdcomputerscience@di.unimi.it](mailto:phdcomputerscience@di.unimi.it)

## Doctoral programme selection phases - Computer Science

### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview will be in English.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral programme in International and Public Law, Ethics and Economics for Sustainable Development (LEES)

### Learning Objectives

Despite the urgency of the Sustainable Development Goals integrated into the 2030 Agenda for Sustainable Development, some of the most influential global actors continue to disclaim their responsibility to contribute to them. The magnitude of the problem justifies a multidisciplinary research program on the institutions for sustainability based on putting to work together law, ethics and economics - and to which the LEES doctorate is dedicated.

The legal system defines the rule of law limits to the political balance between fundamental rights and economic stability, and indicates the intolerability of phenomena of marginalization and inequality. However, new ideas of justice are needed: after redefining the concept social well-being, these ideas need to reconceive and understand distributive justice from both an inter-generational and intra-generational perspective.

Comparative studies, as well as *de jure condendo* ones, will design multi-level institutions for sustainable development, finally questioning that various private institutions can be sheltered from the claims of social justice, such as the access to innovation, the fair distribution of decision-making rights to stakeholders within enterprises, the democratic self-government of common goods.

Strategic litigation will be studied in order to promote institutional change and respect for human rights inside and outside the courts.

Economic analysis will set the condition to verify when institutional change is supported by collective rational choice models and if it corresponds, thanks also to plasticity of preferences, to the emergence of game theoretical equilibria eliciting conformity (social norms).

The doctoral programme will be in English.

### Academic disciplines

12/C (Constitutional and ecclesiastical law)

12/D (Administrative and tax law)

12/E (International, European Union, comparative, economic, market and maritime law)

12/H (Roman law, history of medieval and modern law, and philosophy of law)

13/A (Economics)

13/B (Business Economics)



## Partner Universities

University of Milan (administrative centre)

University of Maastricht

University of Rijeka

At the end of the programme, each partner University will grant the student the PhD qualification pursuant to Ministerial Decree no. 45 of 8 February 2013.

## Research Topics

Research topics may be viewed on the [University website](#)

## Duration

3 years

## Places available

6

## Scholarships

6 scholarships for completing the Department of Italian and Supranational Public Law project funded by MIUR as part of the *Bando Dipartimenti di Eccellenza 2018-2022*, pursuant to Law no. 232 dated 11 December 2016.

## Doctoral programme coordinator

Prof. Lorenzo Sacconi, full professor of economic policy in the SECS-P/02 scientific-disciplinary [lorenzo.sacconi@unimi.it](mailto:lorenzo.sacconi@unimi.it)

## Admission requirements

LM-1 Cultural anthropology and ethnology,

LM-16 Finance,

LM-48 Regional, Urban and Environmental Planning,

LM-49 Design and Management of Tourist Systems,

LM-50 Planning and Management of Educational Services,

LM-51 Psychology,

LM-52 International Relations,

LM-55 Cognitive science,

LM-56 Economics,

LM-59 Public and Corporate and Advertising and Communication,

LM-62 Political Sciences,



LM-63 Public Administration,  
LM-64 Religious Studies,  
LM-69 Agricultural Sciences and Technology,  
LM-70 Food Science and Technology,  
LM-73 Forestry and Environmental Science and Technology,  
LM-75 Environment and Land Science and Technology,  
LM-76 Environmental and Cultural Economics,  
LM-77 Economics and business,  
LM-78 Philosophy,  
LM-81 Development Cooperation,  
LM-84 History,  
LM-87 Social services and policies,  
LM-88 Sociology and social research,  
LM-90 European studies,  
LM-92 Communication Theory,  
LM/SC Legal Sciences,  
LMG/01 Law.

### Reference letters

The academic board requires the presentation of two reference letters, to be drafted according to Form 2 attached hereto, to be sent by e-mail to [lees@unimi.it](mailto:lees@unimi.it)

### Doctoral programme selection phases - International and Public Law, Ethics and Economics for Sustainable Development (LEES)

#### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

#### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview will be in English.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Experimental Medicine

### Learning objectives

Experimental medicine develops and applies technology and biological models for studying pathogenic mechanisms in human disease. It involves various disciplines (biochemistry, biology, molecular biology, anatomy, physiology, pathology, immunology, genetics and microbiology/virology) that are providing a rapidly growing understanding of the mechanisms that enable the development of pathological processes. The course aims to acquaint students with the technologies and research methodologies in the area of biomedicine and biotechnology based on *in vitro* and *in vivo* experimental models and '-omic' approaches, and on their application to the study of cellular and molecular mechanisms involved in the pathogenesis of human disease. The final objective is the formation of high-level scientists able to combine an understanding of biological processes and pathogenic mechanisms through the application of advanced experimental techniques. The programme's specific objectives are:

- 1) develop the ability to define problems and devise experiments to solve them in accordance with scientific standards;
- 2) study biochemical, molecular and cellular mechanisms in physiopathology using advanced technologies;
- 3) develop the ability to critically assess scientific literature;
- 4) provide solid, up-to-date knowledge in the specific field;
- 5) teach how to conduct independent research, and inform on related ethical implications.

The doctoral programme is conducted entirely in English.

### Academic disciplines

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

05/F (Applied Biology)

05/G (Experimental and Clinical Pharmacological science)

06/A (Pathology and Laboratory Diagnostics)

06/D (Specialised Clinical Medicine)

06/N (Healthcare, applied medical technology, physical exercise and sports science professions)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years



## Places available

10

## Scholarships

9 University of Milan

1 funded by the Department of Medical Biotechnology and Translational Medicine for the project "Metastasis as mechanodisease - METAMECH Id.22759"

## Doctoral programme coordinator

Prof. Massimo Locati, full professor in scientific-disciplinary sector MED/04  
[massimo.locati@unimi.it](mailto:massimo.locati@unimi.it)

## Admission requirements

All classes of master's degrees

## Doctoral programme selection phases - Experimental Medicine

### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview will be in English.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Translational Medicine

### Learning objectives

The doctoral programme aims to train researchers who are able to develop research projects that bridge the gap between laboratory activity and clinical sciences, facilitating the translational process in both directions.

Aims:

1. understand and study biological structures in the different levels of organisation, their physiological and pathological modifications in the framework of interactions between people and the environment, exploring diagnostic and therapeutic interventions and facilitating their application in clinical practice;
2. learn a scientific translational research approach which can favour points of contact between biological and clinical-behavioural discoveries and preventive, therapeutic and rehabilitation practices in order to improve di health and lifestyle, also considering the global increase in life expectancy;
3. acquire a solid grounding in the methodological disciplines required to formulate correct experimental hypotheses, define experimental designs and critically interpret results;
4. promote communication between biological and clinical-behavioural research, particularly in relation to movement and physical activity in the area of prevention, mental-physical wellbeing, sport and professional performance, in conditions of health, illness and disability, in a unified perspective;
5. understand the ethical implications of clinical and biological research.

The doctoral programme is conducted entirely in English.

### Academic disciplines

02/D (Applied physics, teaching and history of physics)

05/D (Physiology)

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

05/F (Applied biology)

05/H (Human anatomy and histology)

06/A (Pathology and Laboratory Diagnostics)

06/B (General Clinical Medicine)

06/C (General Clinical Surgery)

06/D (Specialised Clinical Medicine)

06/E (Specialised Clinical surgery)



06/F (Integrated Clinical Surgery)

06/G (Clinical Paediatrics)

06/I (Clinical radiology)

06/L (Clinical anaesthesiology)

06/N (Healthcare, applied medical technology, physical exercise and sports science professions)

09/G (Systems engineering and bioengineering)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

18

### Scholarships

15 University of Milan

1 funded by the “Luigi Sacco” Department of Biomedical and Clinical Sciences for the programme “Nanotechnology approaches for cancer diagnosis, treatment and management”

1 funded by I.R.C.C.S. Policlinico San Donato for the programme “Artificial intelligence for cardiovascular imaging biomarkers”

1 funded by Novystem S.p.A. for the programme “The role of immunity in muscle homeostasis”

### Doctoral programme coordinator

Prof. Chiarella Sforza, full professor in scientific-disciplinary sector BIO/16  
[chiarella.sforza@unimi.it](mailto:chiarella.sforza@unimi.it)

### Admission requirements

All classes of master's degrees

### Doctoral programme selection phases - Translational Medicine

#### *Qualification assessment date*

The assessment will take place on 21 September 2020.

The assessment outcome will be posted to the University website by the interview start date.

#### *Interviews*

Online interviews will be held from 24 to 30 September 2020.



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The interview will be in English.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral programme in Mind, Brain and Reasoning

### Learning objectives

Over the past decade, the University of Milan has developed significant skills and produced world-class research in related disciplines, ranging from philosophy of mind, and theories of reasoning to cognitive sciences. Today more than ever, frontier research requires the ability to integrate these types of skills. For this reason, we propose a new doctoral programme offering a strong analytical and epistemological background, and combining theoretical reflection and experimental practice, so as to attract young researchers who intend to study the foundations of human cognition using a multidisciplinary approach. This doctoral programme is currently unparalleled nationally, and will hopefully set a benchmark at a European level.

The doctoral programme is entirely in English.

### Academic disciplines

11/C (Philosophy)

11/E (Psychology)

13/A (Economics)

05/D (Physiology)

06/E (Specialty Clinical Surgery)

### Research topics

Research topics are available on the [University website](#)

### Duration

3 years

### Places available

4

### Scholarships

3 University of Milan

1 funded by the "Luigi Sacco" Department of Biomedical and Clinical Sciences for the programme "Measuring consciousness: from theory to practice"

### Doctoral Programme Coordinator

Prof. Francesco Guala, full professor in scientific-disciplinary sector SECS-P/01

[francesco.guala@unimi.it](mailto:francesco.guala@unimi.it)



## Admission requirements

All master's degree classes

## Reference letters

The Academic Board requires that one reference letter, drawn up according to [Form 2](#) attached hereto, be sent by email to [chiara.ottolini@unimi.it](mailto:chiara.ottolini@unimi.it)

## Doctoral programme selection phases - Mind, Brain and Reasoning

### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview will be in English.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Environmental Sciences

### Learning objectives

The doctoral programme provides solid grounding and training in research in the various fields typical of Environmental Sciences, promoting interdisciplinary interaction of students with Italian and foreign research groups and with institutions that, in various capacities, study and manage the environment, land and human health.

As a highly interdisciplinary programme, it aims to develop:

- an understanding of methodological, instrumental, analytical, and statistical approaches to study of the environment;
- the ability to draw together the interdisciplinary studies of environmental system components.

The programme ensures high standards of learning in the integrated study of complex environmental systems regarding:

- current and past biological and non-biological components;
- functional relations between the biotic and a-biotic components and mediating mechanisms;
- changes both in the times of ecological processes and of evolutionary and geomorphological processes.

The programme focuses on the following issues:

- biodiversity, at all levels of organization of living organisms;
- the relationships between the biotic components and between them and the abiotic environment, including in anthropogenic components;
- human-environment interactions, including diachronically, both in terms of the impact of anthropic activities on environmental systems and the effects of the environment on risks for humans and human activities.

We also aim to develop innovative methods for teaching environmental sciences.

### Academic disciplines

01/A (Mathematics)

02/C (Astronomy, Astrophysics, Earth and Planetary Physics)

04/A (Geosciences)

05/A (Plant Biology)

05/B (Animal Biology and Anthropology)

05/C (Ecology)

05/G (Experimental and Clinical Pharmacological Sciences)

05/I (Genetics and Microbiology)

06/A (Pathology and laboratory diagnostics)



06/M (Public Health)

07/C (Agricultural, Forestry and Biosystem Engineering)

07/E (Agricultural Chemistry, Agricultural Genetics and Pedology)

07/G (Animal Sciences and Technologies)

07/H (Veterinary Medicine)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

7

### Scholarships

7 University of Milan

### Doctoral programme coordinator

Prof. Gentile Francesco Ficetola, full professor in scientific-disciplinary sector BIO/05  
[francesco.ficetola@unimi.it](mailto:francesco.ficetola@unimi.it)

### Admission requirements

All classes of master's degrees

### Doctoral programme selection phases - Environmental Sciences

#### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

#### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

All candidates will have the interview in English. The research project will be illustrated through a Powerpoint presentation. Each candidate will have a 10-minute slot.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Literature, Arts and Environmental Heritage

### Learning objectives

The doctoral programme in Literature, arts and environmental heritage is structured around two central ideas: the “text” (broadly considered as the product of intentional creative action), its history and success, the forms of its production and reception; the “context” or overall historical and environmental circumstances in which production of the text takes place. The new structure issues from experience developed during previous doctoral programmes in Classical Antiquity, History of Italian language and Literature, Cultural and Environmental Heritage Sciences. The cultural contents typical of the various sectors (philology, literature and linguistics, history and classical antiquity, archaeology, history of art, of music and of performing arts, human environmental sciences) will be studied in depth, developed and reorganised in a multidisciplinary whole.

### Academic disciplines

- 10/A (Archaeology)
- 10/B (Art History)
- 10/C (Music, Drama, Cinema, Television and Audiovisual Media)
- 10/D (Classical Antiquity)
- 10/E (Middle Latin and Romance Philologies and Literature)
- 10/F (Italian Studies and Comparative Literature)
- 10/G (Glottology and Linguistics)
- 10/N (Eastern and African Cultures)
- 11/A (Historical Disciplines)
- 11/B (Geography)
- 11/C (Philosophy)
- 11/E (Psychology)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

7



## Scholarships

7 University of Milan

### Doctoral programme coordinator

Prof. Patrizia Piacentini, full professor in scientific-disciplinary sector L-Or/02  
[patrizia.piacentini@unimi.it](mailto:patrizia.piacentini@unimi.it)

### Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-2 Archaeology,

LM-3 Landscape Architecture,

LM-4 Architecture and Construction Engineering,

LM-5 Archive Studies and Librarianship,

LM-10 Conservation of Architectural and Environmental Heritage,

LM-11 Cultural Heritage Conservation,

LM-12 Design,

LM-14 Modern Philology,

LM-15 Philology, Literature and History of Classical Antiquity,

LM-19 Information and Editorial Systems,

LM-36 Languages and Literature of Africa and Asia,

LM-37 Modern European and American Languages and Literature,

LM-38 Modern Languages for International Communication and Cooperation,

LM-39 Linguistics,

LM-45 Musicology and Musical Heritage,

LM-48 Regional, Urban and Environmental Planning,

LM-49 Design and Management of Tourist Systems,

LM-50 Planning and Management of Educational Services,

LM-51 Psychology,

LM-65 Performance Arts and Multimedia Production,

LM-75 Environmental and Land Sciences and Technology,

LM-78 Philosophy,



LM-80 Geography,  
LM-84 History,  
LM-89 Art History,  
LM-92 Communication Theory,  
LM-94 Specialised Translation and Interpreting,  
LMR/02 Conservation and Restoration of Cultural Heritage.

## Doctoral programme selection phases - Literature, Arts and Environmental Heritage

### *Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Nutrition Sciences

### Learning objectives

The Doctoral Programme in Nutrition Sciences (DSN) offers integrated multidisciplinary and translational training in Nutrition research. The programme intends to train students in research in multiple fields, including nutrition, medicine, food chemistry, biology and veterinary medicine. Specialty areas include human nutrition, diet therapy, nutraceuticals (including animal), foods and food production, well-being, community nutrition, and food education, as well as animal nutrition (also as a model) and food safety. Nutrition knowledge and skills are integrated synergistically, as part of an innovative and attractive training path.

### Academic disciplines

- 03/D (Pharmaceutical, Technological, Nutritional)
- 05/D (Physiology)
- 05/E (Experimental and Clinical Biochemistry and Molecular Biology)
- 05/G (Experimental and Clinical Pharmacological Sciences)
- 06/A (Pathology and Laboratory Diagnostics)
- 06/B (General Clinical Medicine)
- 06/D (Specialised Clinical Medicine)
- 06/F (Integrated Clinical Surgery)
- 06/G (Clinical Paediatrics)
- 06/H (Clinical Gynaecology)
- 07/G (Animal Sciences and Technologies)
- 07/H (Veterinary Medicine)
- 11/E (Psychology)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

7



## Scholarships

6 University of Milan

1 funded by the Department of Veterinary Science for Health, Animal Production and Food Safety for the programme "Alternative and innovative foods: nutritional and functional assessment, bioavailability and metabolic use".

## Doctoral programme coordinator

Prof. Luciano Pinotti, full professor in scientific-disciplinary sector AGR/18  
[luciano.pinotti@unimi.it](mailto:luciano.pinotti@unimi.it)

## Admission requirements

All classes of master's degrees

## Reference letters

The academic board requires that two reference letters, drawn up according to [Form 2](#) attached hereto, be sent by email to [miriam.cordoni@unimi.it](mailto:miriam.cordoni@unimi.it), cc to the doctoral programme coordinator.

## Doctoral programme selection phases - Nutrition Sciences

### *Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Earth Sciences

### Learning objectives

The doctoral programme in Earth Sciences aims to train young researchers so that they are able to autonomously investigate a broad range of geoscience topics. The mission is to form high profile geologists with scientific-technical-experimental training in the study, modelling and management of georesources who are able to solve problems effectively. Based on past experience, the programme will focus on immediately marketable hard & soft skills and meet the need for post-graduate education with up-to-date, innovative know-how. In particular, it will provide advanced specialist training

1. in basic, applied and theoretical research on problems relating to the structure, composition, evolution and dynamics of the Earth;
2. in the characterisation and modelling of the Earth System;
3. in basic and applied research on land use, natural hazards, energy and water resources, geomaterials, mineral prospecting and enhancement of cultural heritage.

The geological perspective of the overall functioning of the Earth System includes research centred on the processes at work on the surface and inside the Earth, on their impact on ecosystems and human activities and, conversely, the short and long-term consequences of human activity on the environment. The complex interactions between geosphere, biosphere, atmosphere and hydrosphere are stored in the geological record, which can be decoded to:

- a) reconstruct the development and evolution of our planet, combining experimental observations and models;
- b) Define natural resources (oil, gas, mineral raw materials, water), their use and sustainable exploitation;
- c) Evaluate geological hazards (e.g., earthquakes, volcanic eruptions, floods, landslides);
- d) Devise works of geological engineering and infrastructures;
- e) Implement environmental reclamation technologies;
- f) Develop exploitation of raw materials for industrial applications;
- g) Preserve and make the most of our cultural geo-paleontological heritage;
- h) Evaluate forensic applications.

The EARTH SYSTEM: PROCESSES AND MODELLING curriculum aims to develop scientific-technical skills for understanding, quantifying and modelling the current Earth System and the geological record, characterised by complex interactions between Geosphere, Biosphere, Atmosphere and Hydrosphere.

The GEORESOURCES curriculum aims to develop innovative skills to address the global challenges deriving from the growing need for Georesources. Research activities will focus on a wide spectrum of geological skills regarding the identification and exploitation of energy, mineral and



water resources while preserving the landscape. The aim is to train high-profile geologists with scientific-technical-experimental training for research, modelling and management of georesources and for studying and enhancing the landscape and cultural heritage.

The programme is organised to meet teaching and research requirements related to the broad spectrum of geosciences. The lines of research developed during the doctoral programme in Earth Sciences are highly topical with extensive international significance, as witnessed by close cooperation with leading international research institutions. Special attention is dedicated to training researchers to tackle complex research topics in an independent and innovative manner. Training of doctoral students includes short courses and workshops, work experience in Italian and international institutions/laboratories, collaboration with industry, participation in Italian and international conferences and workshops, and other activities focused on overall training.

## Academic disciplines

04/A (Geosciences)

## Research topics

Research topics may be viewed on the [University website](#)

## Duration

3 years

## Places available

7

## Scholarships

5 University of Milan

2 for the "Ardito Desio" Department of Earth Sciences project funded by MIUR as part of the *Bando Dipartimenti di Eccellenza 2018-2022*, pursuant to Law no. 232 dated 11 December 2016.

## Doctoral programme coordinator

Prof. Fernando Camara Artigas, full professor in scientific-disciplinary sector GEO/06  
[fernando.camara@unimi.it](mailto:fernando.camara@unimi.it)

## Curricula

1. Earth System: Processes and Modelling
2. Georesources



### Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

- LM-11 Science for conservation of cultural heritage,
- LM-17 Physics,
- LM-18 Computer Sciences,
- LM-22 Chemical Engineering,
- LM-23 Civil Engineering,
- LM-27 Telecommunications Engineering,
- LM-29 Electronic Engineering,
- LM-30 Energy and Nuclear Engineering,
- LM-32 Computer Engineering,
- LM-34 Naval Engineering,
- LM-35 Environmental and Land Engineering,
- LM-40 Mathematics,
- LM-48 Regional, Urban and Environmental Planning,
- LM-53 Materials Science and Engineering,
- LM-54 Chemistry,
- LM-58 Universe Sciences,
- LM-60 Natural Sciences,
- LM-69 Agricultural Science and Technology,
- LM-71 Industrial Chemistry,
- LM-72 Navigation Science and Technology,
- LM-73 Forestry and Environmental Science and Technology,
- LM-74 Geological Sciences and Technologies,
- LM-75 Environmental and Land Sciences and Technology,
- LM-79 Geophysics,
- LM-82 Statistical Sciences.



## Reference letters

The academic board requires that two reference letters, drawn up according to [Form 2](#) attached hereto, be sent by email to the doctoral programme coordinator.

## Doctoral programme selection phases - Earth Sciences

### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Pharmaceutical Sciences

### Learning objectives

The doctoral programme is designed to train highly skilled doctors to work successfully in the industrial and academic fields, and in the sector of medicines and healthcare products. The training, which aims at providing advanced methodological knowledge and scientific content in the pharmaceutical sector, includes theory and research, both centred on the design, synthesis, development and control of new biologically active compounds, new pharmaceutical forms, special foods, cosmetics, biocides and medical devices, typical of the fields covered in the doctoral programme:

- Design and synthesis of biologically active compounds
- Pharmaceutical, biopharmaceutical and toxicological analysis
- Metabolism of medicines and pharmacokinetics
- Pharmaceutical technology and legislation
- Chemistry of foods and dietary products
- Fermentation biotechnology and chemistry
- Advanced methods of synthesis
- Chemical-physical characterisation of products with biological activity
- Medicinal plants and active ingredients of plant origin
- Statistical methods for experimental data processing in the chemical analysis laboratory.

The doctoral programme is entirely in English.

### Academic disciplines

03/A (Analytical, chemical-physical)

03/B (Inorganic, technological)

03/C (Organic, industrial)

03/D (Pharmaceutical, technological, nutritional)

05/A (Plant biology)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years



### Places available

7

### Scholarships

6 University of Milan

1 funded by Paride Grisenti Chemical Pharmaceutical and IP Management for the programme "Synthesis of potential pharmacologically active molecules using biocatalytic methods: a study of stereochemical aspects and polymorphism using spectroscopic and crystallographic methods".

### Doctoral programme coordinator

Prof. Giancarlo Aldini, full professor in scientific-disciplinary sector CHIM/08  
[giancarlo.aldini@unimi.it](mailto:giancarlo.aldini@unimi.it)

### Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-6 Biology,  
LM-8 Industrial Biotechnology,  
LM-9 Medical, Veterinary and Pharmaceutical Biotechnology,  
LM-13 Pharmacy and Industrial Pharmacy,  
LM-21 Biomedical Engineering,  
LM-22 Chemical Engineering,  
LM-26 Security Engineering,  
LM-53 Materials Science and Engineering,  
LM-54 Chemistry,  
LM-61 Nutrition,  
LM-69 Agricultural Science and Technology,  
LM-70 Food Science and Technology,  
LM-71 Industrial Chemistry.

### Reference letters

The academic board requires that one reference letter, drawn up according to [Form 2](#) attached hereto, be sent by email to the doctoral programme coordinator and to the address [dottorato.scifarm@unimi.it](mailto:dottorato.scifarm@unimi.it).



## Doctoral programme selection phases - Pharmaceutical Sciences

### *Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Pharmacological biomolecular sciences, experimental and clinical

### Learning objectives

The doctoral programme, a third cycle programme, makes the most of the multidisciplinary knowledge of the teaching staff to train biomedical experts in the most modern aspects of pharmacological research. In particular, the areas of interest are:

- Basic research: the study of key mechanisms and molecules in physiopathological processes to identify new pharmacological targets and/or new markers predictive of disease and therapeutic effectiveness. Research involves: 1) the analysis of molecular and cellular aspects of complex physiological processes, 2) the study of pathogenic mechanisms in diseases, 3) the study of biological markers of use in translation of preclinical research to humans.
- Research applied to the pharmacological-toxicological study of active ingredients: 1) analysis of the activity of active principles, including biological drugs under development or in clinical use, 2) analysis of foods, food supplements and therapeutic plant derivatives, 3) analysis of xenobiotic activity.
- Research applied to the creation of innovative systems for studying pathologies and developing drugs and evaluation of their effects on the population. Basic research on: 1) the development of cellular and animal models also through genetic engineering methodologies, 2) optimising preclinical protocols for simple and complex diseases, including co-morbidities 3) *in silico* approaches to the study of new drug-toxicology targets, 4) the use of databases and population studies also to assess drug use and outcomes in terms of clinical events.
- Technical-scientific collaboration for revising documentation on active compounds and plant protection products and for drug safety and with other clinical centres.

In conclusion, students will develop competencies applicable to various areas of academic and industrial research, allowing effective “bench to bed” translation and a multidisciplinary approach essential for public health, with significant socio-economic impact on health.

The programme is conducted entirely in English.

### Academic disciplines

05/D (Physiology)

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

05/F (Applied biology)

05/G (Experimental and Clinical Pharmacological Sciences)

05/H (Human Anatomy and Histology)

05/I (Genetics and microbiology)



06/A (Pathology and Laboratory Diagnostics)

06/D (Specialised Clinical Medicine)

## Research topics

Research topics may be viewed on the [University website](#)

## Duration

3 years

## Places available

15

## Scholarships

8 University of Milan

2 scholarships for the Department of Pharmacology and Biomolecular Science project funded by MIUR as part of the *Bando Dipartimenti di Eccellenza 2018-2022*, pursuant to Law no. 232 dated 11 December 2016.

5 funded by the Department of Pharmacology and Biomolecular Science for the following programmes:

- Integrating metabolism and immunity: cellular and molecular pathways leading to metabolic dysregulation and autoimmunity;
- Early life stress and psychopathology: unraveling the mechanisms of vulnerability and resilience;
- Unveiling the role of the Irisin-BDNF axis in controlling muscle to brain metabolic crosstalk in anorexia nervosa;
- Alternative translation initiation as a novel strategy to block toxicity of the mutant Androgen Receptor in SBMA;
- An integrative approach for the systematic characterization of mitochondrial regulators in hepatocellular carcinoma.

## Doctoral programme coordinator

Prof. Alberico Catapano, full professor in scientific-disciplinary sector BIO/14  
[alberico.catapano@unimi.it](mailto:alberico.catapano@unimi.it)

## Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

LM-6 Biology,



LM-7 Agricultural Biotechnology,  
LM-8 Industrial Biotechnology,  
LM-9 Medical, Veterinary and Pharmaceutical Biotechnology,  
LM-13 Pharmacy and Industrial Pharmacy,  
LM-17 Physics,  
LM-18 Computer science,  
LM-21 Biomedical engineering,  
LM-41 Medicine and Surgery,  
LM-42 Veterinary medicine,  
LM-55 Cognitive science,  
LM-60 Natural sciences,  
LM-61 Human nutrition,  
LM-66 Informatics Security,  
LM-69 Agricultural Science and Technology,  
LM-70 Food Science and Technology,  
LM-75 Environmental and Land Sciences and Technology,  
LM-82 Statistics,  
LM/SNT1 Nursing and Midwifery,  
LM/SNT2 Rehabilitation Professions,  
LM/SNT3 Health Professions for Technical Assistance,  
LM/SNT4 Preventive Care Professions.

### Reference letters

The academic board requires that one reference letter, drawn up according to [Form 2](#) attached hereto, be sent by email to the coordinator and to the address [dottorato.sfsc@unimi.it](mailto:dottorato.sfsc@unimi.it)

### Doctoral programme selection phases - Pharmacological biomolecular sciences, experimental and clinical

#### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

#### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**



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All candidates will have the interview in English. The research project will be illustrated through a Powerpoint presentation. Each candidate will have a 15-minute slot (10 minutes' presentation + 5 minutes' discussion).

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Food Systems

### Learning objectives

The aim of this doctoral programme is to prepare researchers and scholars specialised in nutrition with international standard methodological know-how, autonomy and specific skills in scientific research on food systems. With these learning objectives, the doctoral programme in Food Systems envisages many cross-sector research topics:

- food technologies, process control and innovation;
- microbiology of foods and bioprocesses;
- food chemistry and biochemistry;
- human nutrition;
- ecology of agri-food and agri-environmental systems.

The doctoral programme is held entirely in English.

### Academic disciplines

03/A (Analytical, Chemical-Physical)

03/D (Pharmaceutical, Technological, Nutritional)

05/D (Physiology)

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

06/D (Specialised Clinical Medicine)

07/A (Agricultural Economics and Rural Surveying)

07/C (Agricultural, Forestry and Biosystem Engineering)

07/D (Entomology and Plant Pathology)

07/E (Agricultural Chemistry and Genetics and Pedology)

07/F (Food Science and Technologies)

07/I (Agricultural microbiology)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

6



## Scholarships

6 University of Milan

## Doctoral programme coordinator

Prof. Antonella Pagliarini, full professor in scientific-disciplinary sector AGR/15  
[ella.pagliarini@unimi.it](mailto:ella.pagliarini@unimi.it)

## Curricula

1. Chemistry and biochemistry
2. Agri-environment
3. Food Science and Nutrition

## Admission requirements

All classes of master's degrees

## Doctoral programme selection phases - Food Systems

### *Qualification assessment date*

The assessment will take place on 22 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview will be in English.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Public Health Sciences

### Learning objectives

The doctoral programme in Public Health Sciences aims to form researchers who are able to design, undertake and critically interpret research and advanced training projects and to assess health status and prevent the spread of transmittable and chronic-degenerative diseases within the population; promote health in individuals and populations; disseminate scientific culture and applicable research methodologies.

The internationalisation process foresees the exchange of students and professors with doctoral students, research centres and foreign institutions and the organisation of courses held by foreign experts.

The specific objectives of the doctoral programme include the development of research methodologies in the area of health, both laboratory and clinical; in the area of prevention policies focusing on the public and on particular groups at risk; in the context of services to the population for protecting and promoting individual health; in a transversal and transdisciplinary context that recognizes that the health of a populations is closely linked to that of animals and the environment ('one health' approach) and acquisition of a solid methodological grounding in the quantitative disciplines required to correctly apply and develop methods for the critical interpretation of basic, clinical, medical and epidemiological research findings.

### Academic disciplines

06/E (Specialised Clinical Surgery)

06/G (Clinical Paediatrics)

06/H (Clinical Gynaecology)

06/M (Public Healthcare)

07/H (Veterinary Medicine)

13/B (Business Economics)

13/D (Statistics and mathematical methods for decision-making)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

4



## Scholarships

4 University of Milan

## Doctoral programme coordinator

Prof. Carlo La Vecchia, full professor in scientific-disciplinary sector MED/01  
[carlo.lavecchia@unimi.it](mailto:carlo.lavecchia@unimi.it)

## Admission requirements

All classes of master's degrees

## Doctoral programme selection phases - Public Health Sciences

### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Veterinary and Animal Science

### Learning objectives

The learning objectives of the doctoral programme are:

1. Coordinate third-level education for all disciplines under the umbrella of Veterinary Science and Animal Production;
2. Provide young graduates with a solid scientific and cultural education in the relevant disciplines through the development of advanced research programmes and highly qualifying specialized training;
3. Take advantage of the close network of collaborations and agreements currently in place between the promoting professors and the production and business systems operating in the sectors mentioned above;
4. Take part in the numerous ongoing collaborations with other distinguished national and international research institutions for advanced education in specific areas and use the increased critical mass and multidisciplinary approach to favour the development of new, more systematic collaborations;
5. Take up every opportunity to promote internationalization through the involvement of professors and students from abroad in its training and research.

The programme is entirely in English.

### Academic disciplines

05/E (Experimental and Clinical Biochemistry and Molecular Biology)

07/A (Agricultural Economics and Rural Surveying)

07/C (Agricultural, Forestry and Biosystem Engineering)

07/G (Animal Science and Technology)

07/H (Veterinary Medicine)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

13

### Scholarships

12 University of Milan



1 funded by the Department of Veterinary Science for Health, Animal Production and Food Safety as part of the programme “Animal nutrition, well-being and sustainability: new perspectives”.

## Doctoral programme coordinator

Prof. Valeria Grieco, associate professor in scientific-disciplinary sector VET/03  
[valeria.grieco@unimi.it](mailto:valeria.grieco@unimi.it)

## Admission requirements

All classes of master's degrees

## Reference letters

The academic board requests two reference letters drawn up using [Form 2](#) attached hereto and emailed to [phdcourse.vas@unimi.it](mailto:phdcourse.vas@unimi.it)

## Doctoral programme selection phases - Veterinary and Animal Science

### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview will be in English.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Economic Sociology and Labour Studies

### Learning objectives

The doctoral programme in Economic Sociology and Labour Studies aims to provide students with expertise in different areas, essential for the study and regulation of economic phenomena and labour. The programme is highly interdisciplinary: though focusing on economic sociology, it also embraces labour studies, economy and statistics, business organization and behavioural studies. These inter- and multi-disciplinary competencies are important in addressing the role of social and institutional factors in an innovative way within the context of the analysis and regulation of economic and labour phenomena in a complex and rapidly changing society. Besides providing theoretical and practical knowledge in relevant areas, the programme aims to provide strong methodological and empirical research skills, both quantitative and qualitative, in order to keep abreast of recent progress in international social and economic sciences, including non-standard social analysis techniques such as computer modelling and simulation (agent-based modelling).

The doctoral programme is entirely in English.

### Academic disciplines

11/E (Psychology)

12/B (Commercial and labour law)

13/B (Business economics)

13/D (Statistics and mathematical methods for decision-making)

14/C (Sociology)

14/D (Applied sociology)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

5

### Scholarships

3 University of Milan

1 funded by Fondazione Collegio Carlo Alberto

1 funded by the Italian National Institute of Social Security (Istituto Nazionale della Previdenza Sociale, INPS) as part of the public competition: *“Dottorati di ricerca in materia di industria 4.0; sviluppo sostenibile; welfare e benessere, per l'erogazione di borse di studio in favore dei figli e*



*orfani di: dipendenti e pensionati della pubblica amministrazione iscritti alla Gestione Unitaria delle Prestazioni creditizie e sociali; pensionati utenti della Gestione Dipendenti Pubblici”*  
[“PhDs in industry 4.0; sustainable development; welfare and well-being. Call for applications for scholarships for the children and orphans of: employees and pensioners of the public administration registered in Gestione Unitaria delle Prestazioni creditizie e sociali; retired users of Gestione Dipendenti Pubblici”.]

## Doctoral programme coordinator

Prof. Gabriele Ballarino, full professor in scientific-disciplinary sector SPS/09  
[gabriele.ballarino@unimi.it](mailto:gabriele.ballarino@unimi.it)

## Admission requirements

All classes of master's degrees

## Reference letters

The academic board requires that two reference letters, drawn up according to [Form 2](#) attached hereto, be sent by email to [call.esls@unimi.it](mailto:call.esls@unimi.it)

## Doctoral programme selection phases - Economic Sociology and Labour Studies

<i>Qualification assessment date</i>	The assessment will take place on 23 September 2020. The assessment outcome will be posted to the University website by the interview start date.
<i>Interviews</i>	<b>Online interviews will be held from 24 to 30 September 2020.</b> The interview will be in English. Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website. Online posting is equivalent to a notice to the persons concerned.



## Doctoral Programme in Linguistic, Literary and Intercultural Studies from European and Extra-European Perspectives

### Learning objectives

The doctoral programme, which ranks as a third cycle programme, promotes advanced training for research on a broad spectrum of languages, literature and cultures of different geographical areas (Europe, Africa, the Americas, Asia), and on correlated interlinguistic and intercultural phenomena. Besides basic methodological training, the learning objectives of the various disciplines are organised by research area and according to geographical and socio-cultural criteria. Doctoral students will first complete the learning activities of their area in detail through personalised lessons and workshops designed to encourage autonomous research in their respective sectors. Moments of common training will also be offered, centred on contacts between the various linguistic areas involved, and on the three sectors - linguistic, literary and intercultural - already specified in the title of this programme. Training also includes learning to use analytical IT tools, which are extensively exploited in the international framework. The programme will train international scholars, in the true sense of the word, fluent in several languages, skilled in understanding and discussing the scientific research of other European and non-European institutions, and able to mediate between Italian and international studies.

The linguistic areas of specialisation of the programme are: Arabic, Chinese, Danish, French, Hindi, Japanese, English, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish and German.

### Academic disciplines

10/E (Philology and Middle Latin and Romance Literature)

10/F (Italian Studies and Comparative Literature)

10/H (French Studies)

10/I (Spanish Studies)

10/L (English and Anglo-American Studies)

10/M (Germanic and Slavic Languages, Literature and Cultures)

10/N (Eastern and African Cultures)

11/A (Historical Disciplines)

13/C (Economic History)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years



## Places available

7

## Scholarships

7 University of Milan

## Doctoral programme coordinator

Prof. Maria Vittoria Calvi, full professor in scientific-disciplinary sector L-LIN/07  
[maria.calvi@unimi.it](mailto:maria.calvi@unimi.it)

## Admission requirements

Academic qualifications obtained in one of the following classes under Ministerial Decree 270/2004, or one of the corresponding classes under Ministerial Decree 509/99:

- LM-14 Modern Philology,
- LM-36 Languages and Literature of Africa and Asia,
- LM-37 Modern European and American Languages and Literature,
- LM-38 Modern Languages for International Communication and Cooperation,
- LM-39 Linguistics,
- LM-94 Specialised Translation and Interpreting.

## Doctoral programme selection phases - Linguistic, Literary and Intercultural Studies from European and Extra-European Perspectives

<i>Qualification assessment date</i>	<p>The assessment will take place on 22 September 2020. The assessment outcome will be posted to the University website by the interview start date.</p>
<i>Interviews</i>	<p><b>Online interviews will be held from 24 to 30 September 2020.</b></p> <p>The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.</p> <p>Before the interview, candidates will be assessed for proficiency in their major language, as set out in the research project, in order to qualify for the programme.</p> <p>Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.</p> <p>Online posting is equivalent to a notice to the persons concerned.</p>



## Doctoral Programme in Historical Studies

### Learning objectives

The doctoral programme covers history from late antiquity to the contemporary age, with a focus on political, cultural, economic, religious and institutional history. The programme also delves into the history of ideas, science, publishing, political thought, archiving, and paleography.

Its primary goals are to hone the students' aptitude for historical research, provide them with adequate methodological tools, and teach them how to use historical sources. Under the tutors' guidance, doctoral students will develop their understanding of history, and knowledge of the characters and the course of events. They will also have to prove familiarity with the historical and historiographic debate in its context. At the end of the three-year programme, the doctoral candidates will use specific tools (bibliography, archival sources, printed sources, etc.) to write a final paper demonstrating their ability to understand and analyse critically complex historical events.

The programme provides students with international connections through agreements with foreign universities and research centres (including co-tutorship), and a world-class academic board including professors from prestigious French, German, English, Japanese, American, and Brazilian universities.

### Academic disciplines

10/A (Archaeology)

10/D (Classical Antiquity)

11/A (Historical Disciplines)

11/C (Philosophy)

13/C (Economic History)

14/B (Political History)

### Research topics

Research topics may be viewed on the [University website](#)

### Duration

3 years

### Places available

6

### Scholarships

5 University of Milan



1 funded by the Department of Historical Studies for the programme “Accademia del Cimento: experimental work in meteorology, astronomy and natural sciences”

## Doctoral programme coordinator

Prof. Daniela Saresella, full professor in scientific-disciplinary sector M-STO/04  
[daniela.saresella@unimi.it](mailto:daniela.saresella@unimi.it)

## Admission requirements

All classes of master's degrees

## Reference letters

The academic board requires that one reference letter, drawn up according to [Form 2](#) attached hereto, be sent by email to: [laura.mecella@unimi.it](mailto:laura.mecella@unimi.it)

## Doctoral programme selection phases - Historical Studies

### *Qualification assessment date*

The assessment will take place on 21 September 2020.  
The assessment outcome will be posted to the University website by the interview start date.

### *Interviews*

**Online interviews will be held from 24 to 30 September 2020.**

The interview can be in Italian or English, at the candidate's choice. Anyway, all candidates will be assessed for English language proficiency.

Exam procedures, the calendar with interview dates and times, and the title of the candidate's project will be posted to the University website.

Online posting is equivalent to a notice to the persons concerned.

**Annex A**

**DICHIARAZIONE SOSTITUTIVA DI ATTO NOTORIO**

Self-drafted affidavit  
(art. 47 del DPR n° 445/2000)  
(art. 47 Presidential Decree no. 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 making false statements and submitting false documents are crimes punishable by law (articles 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:

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Milan, \_\_\_\_\_

Data/date

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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.

Pursuant to art. 3 of 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 laws in force.

## Form 1

### PROGETTO DI RICERCA / RESEARCH PROJECT

<b>Cognome e nome del candidato</b> Applicant's Full Name	
<b>Corso di dottorato</b> PhD	

#### 1) Titolo del progetto / Project title

#### 2) Sommario / Abstract

#### 3) Obiettivi e rilevanza dei risultati ottenibili nel contesto dello stato dell'arte / Project aims and their relevance in the context of the state of the art

#### 4) Descrizione del progetto / project description

#### 5) Bibliografia / References

Il progetto dovrà avere almeno 2.000 e non più di 4.000 parole, bibliografia esclusa.

The project should have at least 2,000 and no more than 4,000 words, excluding references.

