

#### Public Competition for Admission to Doctoral Research Programmes at the University of Milan a.y. 2017/2018

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Doctoral Programme in Philosophy and Human Sciences
Doctoral Programme in Physics, Astrophysics and Applied Physics
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FUFP/2

# PUBLIC COMPETITION FOR ADMISSION TO DOCTORAL RESEARCH PROGRAMMES AT THE UNIVERSITY OF MILAN

#### A.Y. 2017/2018

#### 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 PhD programmes by accredited bodies";
- having regard to the Charter of the University of Milan, issued by Rector's Decree dated 15 March 2012;
- 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 decree protocol no. 644 of 19 August 2014, protocol no. 667 of 07 September 2015 and protocol no. 004 of 10 January 2017 with which the Ministry of Education, Universities and Research (MIUR), pursuant to Ministerial Decree DM 45/2013, grants five-year accreditation to the doctoral research programmes presented by the University of Milan and without prejudice to the prescribed requirements;
- having regard to the fact that for the 2017/2018 academic year the University intends to activate a new cycle of doctoral programmes that have already been accredited pursuant to Italian Ministerial Decrees no. 644/14, no. 667/15 and no. 004/2017;
- having regard to the notes of MIUR protocol no. 12311 of 21 April 2017;
- having regard to the decisions of the Academic Senate in the session of 23 May 2017 and of the Board in the session of 30 May 2017 concerning activation of the 33rd doctoral cycle;

#### HEREBY DECREES



#### Art. 1 - Activation of Doctoral Programmes

The following doctoral programmes are activated at the University of Milan for academic year 2017/2018 (33rd cycle), <u>subject to confirmation of their accreditation by MIUR</u>:

- Agricoltura, ambiente e bioenergia Agriculture, environment and bioenergy
- Biologia molecolare e cellulare Molecular and cell biology
- <u>Chimica Chemistry</u>
- Chimica industriale Industrial chemistry
- <u>Diritto comparato, privato, processuale civile e dell'impresa Comparative, private and civil procedural law</u>
- Diritto pubblico, internazionale ed europeo Public, international and european union law
- Epidemiologia, ambiente e sanità pubblica Epidemiology, environment and public health
- Filosofia e scienze dell'uomo Philosophy and human sciences
- Fisica, astrofisica e fisica applicata Physics, astrophysics and applied physics
- Informatica Computer science
- Medicina clinica e sperimentale Clinical and experimental medicine
- Medicina molecolare e traslazionale Molecular and translational medicine
- <u>Medicina sperimentale e biotecnologie mediche Experimental medicine and medical biotechnologies</u>
- <u>Ricerca biomedica integrata Integrative biomedical research</u>
- <u>Scienze ambientali Environmental sciences</u>
- <u>Scienze biochimiche Biochemical sciences</u>
- <u>Scienze del patrimonio letterario, artistico e ambientale Literature, arts and environmental heritage</u>
- <u>Scienze della nutrizione Nutritional sciences</u>
- Scienze della terra Earth sciences
- <u>Scienze farmaceutiche Pharmaceutical sciences</u>
- <u>Scienze farmacologiche sperimentali e cliniche Experimental and clinical pharmacological</u>
   <u>sciences</u>
- <u>Scienze giuridiche "Cesare Beccaria"- Legal studies "Cesare Beccaria"</u>
- <u>Scienze matematiche Mathematical sciences</u>
- <u>Scienze odontostomatologiche Oral sciences</u>



- <u>Scienze per i sistemi alimentari Food systems</u>
- <u>Scienze veterinarie e dell'allevamento Veterinary and animal science</u>
- Sociologia economica e studi del lavoro Economic sociology and labour studies
- <u>Storia, cultura e teorie della società e delle istituzioni History, culture, social and institutional theories</u>
- <u>Studi linguistici, letterari e interculturali in ambito europeo ed extra-europeo Linguistic, literary and intercultural studies in european and extra-european perspectives</u>
- Studi sulla criminalità organizzata Studies on Organized Crime

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 schedule and the links to the university website where the research topics identified by the Teaching committee of each programme, 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 beyond the enrolment quota if they pass the admission exams set out in this decree.

#### Art. 2 - Admission criteria

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 Board constituted for admission to 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 2017.

English language skills at least at level B2 are a prerequisite for taking part in the competition. Language skills of the required level must be sustained by an officially recognised certifying body according to the *Common European Framework of Reference for Languages - CEFR*.

Certifications must have been awarded no earlier than three years from the date of application, unless the specific certification is valid for a different period. The following are recognised by the University:

#### UNIVERSITY OF CAMBRIDGE ESOL EXAMINATION



FCE - First Certificate in English	B2
CAE - Certificate in Advanced English	C1
CPE - Certificate in Proficiency in English BEC Business English Certificates	C2
– Vantage	B2 C1
	B2 C1 C2
	B2 C1 C2
ILEC International Legal English Certificate	B2
ICFE Cambridge International Certificate in Financial English	B2
JETSET - Level 5 - Level 6 - Level 7 EDEXEL - London Test in English - Level 3 - Level 4 - Level 5	B2 C1 C2 B2 C1 C2 B2 C1 C2 B2 C1 C2
<ul> <li>ETS EDUCATIONAL TESTING SERVICE</li> <li>TOEFL Test of English as a Foreign Language <ul> <li>Internet-based test (iBT): 72-94</li> <li>Internet-based test (iBT): 95-120</li> <li>Paper-based test (PBT): at least PBT 510 +TSE 50+TWE 5</li> <li>Computer based test (CBT): at least CBT 180 +TSE 50</li> </ul> </li> <li>TOEIC Test of English for International Communication <ul> <li>785-310</li> <li>945-360</li> </ul> </li> </ul>	

B2 C1 B2 B2

B2 C1



#### TRINITY COLLEGE LONDON

B2
C1
C2
B2
C1
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C2
20
B2
B2
B2

The following candidates do not have to provide certification:

- those who have obtained, or will obtain by 31 October 2017, a second cycle degree (where English is the specialist subject) in one of the following areas: 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 or equivalent second cycle degree;
- those who have obtained, or will obtain by 31 October 2017, a second cycle degree taught entirely in English;
- those who have passed the test organised by the University to ascertain level B2 language skills required for admission to 32nd cycle doctoral studies, or who have been awarded a level B2 language skills certificate issued by Milan University (Servizio Linguistico d'Ateneo di Milano-SLAM) by the publication date of this call for applications.

#### Art. 3 - Application for admission

Application is made by completing the following steps by 1pm, 4 September 2017:

 registering online on the University portal at the webpage - Accesso rapido - Servizi -Registrazione (<u>https://www.unimi.it/registrazione/registra.keb</u>). This operation is not required by those already registered on the portal or in possession of University access credentials (final year students or those who graduated from the University of Milan less than a year ago);



- accessing (by means of access credentials) the SIFA online services at Servizi online SIFA -LOGIN (<u>http://www.unimi.it/apps/hpsifaprivata.xsl</u>);
- submitting an admission application through the following steps: Servizi di ammissione -Ammissione ai corsi post laurea - Dottorati di ricerca (http://studenti.divsi.unimi.it/ammissioni/a/dottorato/checkLogin.asp);
- 4. paying a non-refundable fee of €50 (for selection costs) by credit card or using the MAV (only in Italy) form generated by the online service.

Applicants must **upload** the following **files** in .pdf, .rtf or .jpg format, 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, and showing the statistical distribution of exam grades of each course. 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. Certification, as indicated in art. 2, of at least B2 level English language skills, or a declaration of exemption according to the same article on Form 4 attached hereto;
- E. copy of passport (foreign applicants only);
- F. any publications;
- G. any request for online interview (use Form 3 attached hereto);
- H. <u>Annex A</u>.

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

Italian citizens may self-certify in cases and manners provided for by the laws in force.

Failure to submit all of the above-mentioned documents A-D implies **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 Teaching committee and as specified in the programme tables, applicants must provide one or more reference letters (drafted according to <u>Form 2 attached hereto</u>) by the competition deadline, from persons who have had a role in their education. The reference letters in .pdf must be sent by e-mail directly by the said persons to the email address indicated in the section regarding the relevant PhD programme. 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  $\notin$ 50.00 for each application submitted.

#### Art. 4 - 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 exams. To this end, they must submit a specific declaration of disability (available at the following link: <a href="http://www.unimi.it/cataloghi/segreterie/Istanza\_disabili.pdf">http://www.unimi.it/cataloghi/segreterie/Istanza\_disabili.pdf</a>) or of Learning Disability (available at the following link:

<u>http://www.unimi.it/cataloghi/segreterie/Istanza\_dsa.pdf</u>) along with a medical certificate attesting to the validity of the request.

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

#### Art. 5 - Admission exams

Admission to the PhD 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.

Selection is intended 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 **interview**. The research project, which should be based on a standard model (Form 1 attached <u>hereto</u>), 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 web page indicated in the table for each programme.

The CV is evaluated on the basis of the candidate's whole university career, 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 conditions and the period over which the candidate has obtained his 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 tables. 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; in any case, candidates may ask to be interviewed in English.

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 is 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).

If they have special reasons to do so, foreign candidates who do not live in Italy can take the interview via internet using applications that ensure their identification. They must apply by filling in and uploading Form 3 attached hereto.

At the end of each interview session, the Committee makes a list of the candidates examined and their point scores. The list is signed by the President and the Secretary of the Committee and posted the same day on the noticeboard of the premises where the interview was held.

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 **general ranking list** is published via On line services Sifa - Graduatorie ammissioni post laurea - on the University website (<u>http://www.unimi.it/hpsifa/nonProfiledPage\_100.html</u>) in the days following the examinations.

The Committees must conclude their work no later than **18 September 2017**.

#### 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 PhD 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 PhD 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 Servizi On Line Sifa - Graduatorie ammissioni post laurea (http://www.unimi.it/hpsifa/nonProfiledPage\_100.html).

Applicants admitted to the programmes lose their entitlement if they fail to enrol by the deadlines. 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*) and will receive instructions and deadlines for enrolment.

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

#### Art. 7 - Enrolment

Applicants admitted to PhD programmes can enrol online from **25 September 2017 to 1pm, 29 September 2017** using <u>Servizi on line SIFA - Immatricolazione ai dottorati di ricerca</u> as indicated on the University website <u>http://www.unimi.it/ricerca/dottorati/3503.htm</u>.

PhD applicants must pay a fee of €980 for accessing and attending doctoral programmes in academic year 2017/2018; this includes the regional study tax, insurance premium for accidents and stamp duty. Students who withdraw from the doctoral programme are not entitled to reimbursement of enrolment fees already paid.



Beneficiaries of doctoral scholarships granted by the University are exempted from payment of the fee for accessing and attending doctoral programmes. A €166.00 fee covering the regional study tax and administrative fees will be detracted from the scholarship awarded.

Those without a scholarship, 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  $\leq$ 166.00 covering the regional study tax, insurance premium for accidents and stamp duty.

**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 their 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) stay 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. Until then, candidates are admitted to the programme provisionally and may be excluded if they are found to not meet the requirements.

#### 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  $\in 16.350,00$  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 according 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  $\leq 166.00$ .

Scholarships have a yearly duration and are renewed if the Teaching committee promotes the PhD 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 financial resources of the University budget, 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 PhD 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 PhD Regulations.

#### 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 PhD Regulations.

#### Art. 11 - Processing of personal data

In accordance with its Regulation issued in application of Legislative Decree no. 196 of 30 June 2003, 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 laws.

#### 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 PhD's.

#### Art. 13 - Person in charge of the procedure

According to Law no. 241 of 7 August 1990, the person in charge of the present competition is Ms. Emanuela Dellavalle (Director of the Student and Course administration office).

For further information and clarification you are kindly requested to use the *Infostudenti* service (<u>www.unimi.infostudente.it</u>) selecting the category: *Dottorati master corsi di perfezionamento* (*PhDs, Master's, Specializations*).

Milan, 30 June 2017

THE RECTOR (Gianluca Vago)



#### 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)
- 07/H (Veterinary Medicine)

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

#### Duration

#### 3 years

Università degli Studi di Milano Via Festa del Perdono 7 - 20122 Milano, Italia tel. +39 02503 111 - unimi@postecert.it



# Places available

Scholarships 7 University of Milan

#### Doctoral programme coordinator

Prof. Daniele Bassi, full professor in AGR/03, daniele.bassi@unimi.it

#### Admission criteria

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-9 Medical, Veterinary and Pharmaceutical Biotechnology,

LM-17 Physics,

- LM-18 Computer Science,
- 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

Table 1 - Deadlines for the doctoral programme in agriculture, environment and bioenergy

CV and research project assessment outcome	Available from 13 September 2017 at <a href="http://sites.unimi.it/dottorato_aab/">http://sites.unimi.it/dottorato_aab/</a>
Examination schedule	Interview: 18 September 2017, at 9.30am, at the Dipartimento di Scienze agrarie e ambientali - Produzione, Territorio, Agroenergia (E. Betto hall) - via Celoria no. 2 - 20133 Milan.
	The interview will be in English.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://sites.unimi.it/dottorato_aab/">http://sites.unimi.it/dottorato_aab/</a> .
	This publication constitutes notification to the persons concerned.



#### 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 taught entirely in English.

#### Academic disciplines

01/B (Computer Science)

- 05/A (Plant Biology)
- 05/B (Animal Biology and Anthropology)
- 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)

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>



3 years

Places

11

Scholarships 9 University of Milan

#### Doctoral programme coordinator

Prof. Marco Muzi Falconi, full professor in sector BIO/11 marco.muzifalconi@unimi.it

#### Admission criteria

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-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-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 Material Sciences 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-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/SNT1 Nursing and Midwifery,
- LM/SNT2 Rehabilitation Professions,
- LM/SNT3 Health Professions for Technical Assistance,
- LM/SNT4 Preventive Care Professions

#### Letters of Reference

The Teaching Board requests one letter of reference drawn up using Form 2 attached hereto and emailed to <a href="mailto:margherita.russo@unimi.it">margherita.russo@unimi.it</a>

#### Doctoral programme selection phases

Table 2 - Deadlines for the doctoral programme in Molecular and Cell Biology

CV and research project

Available from 8 September 2017 at <a href="http://www.dbs.unimi.it/ecm/home/didattica/dottorati-">http://www.dbs.unimi.it/ecm/home/didattica/dottorati-</a>



#### assessment outcome

Examination schedule

di-ricerca/biologia-molecolare-e-cellulare

Interview: starting from **11 September 2017**, at **9.00am**, at the Dipartimento di Bioscience, Aula ex lauree, 2nd floor Torre A - via Celoria no. 26, 20133 Milan.

The interview will be in English.

The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website

http://www.dbs.unimi.it/ecm/home/didattica/dottoratidi-ricerca/biologia-molecolare-e-cellulare

This publication constitutes notification 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**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>



Duration

3 years

Places

7

Scholarships 7 University of Milan

#### Doctoral programme coordinator

Prof. Emanuela Licandro, full professor in sector CHIM/06, emanuela.licandro@unimi.it

#### Admission Criteria

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 Material Sciences 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,
- LM-86 Zootechnics and animal technology.

#### **Reference letters**

The Teaching Committee 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

Table 3 - Deadlines for the doctoral programme in Chemistry

CV and research project assessment outcome	Available from 7pm, 8 September 2017 on the website <a href="http://www.chimica.unimi.it/ecm/home/dottorati/bandi">http://www.chimica.unimi.it/ecm/home/dottorati/bandi</a>
Examination schedule	<i>Interview</i> : <b>11 September 2017,</b> at <b>9.30am,</b> at the Dipartimento di Chimica (Mario Farina hall) - via Golgi no.19 - 20133 Milan.
	The interview will be in Italian or English as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <u>http://www.chimica.unimi.it/ecm/home/dottorati/bandi</u> .
	This publication constitutes notification 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**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places available 7

Scholarships 6 University of Milan

#### Doctoral programme coordinator

Prof. Maddalena Pizzotti, full professor in CHIM/03 maddalena.pizzotti@unimi.it

#### Admission Criteria

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-8 Industrial Biotechnology, LM-13 Pharmacy and Industrial Pharmacy, LM-17 Physics, LM-22 Chemical Engineering, LM-53 Material Sciences and Engineering, LM-54 Chemistry, LM-71 Industrial Chemistry.

#### **Reference letters**

The Teaching committee 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

Table 4 - Deadlines for enrolment in the doctoral programme in Industrial Chemistry

CV and research project assessment outcome	Available from 11 September 2017 at http://www.chimica.unimi.it/ecm/home/dottorati
Examination schedule	Interview: <b>15 September 2017,</b> at <b>9.30am,</b> at the Department of Chemistry (L. Malatesta Hall) - via Golgi no. 19 - 20133 Milan.
	The interview will be in Italian or English as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published at <a href="http://www.chimica.unimi.it/ecm/home/dottorati">http://www.chimica.unimi.it/ecm/home/dottorati</a>
	This publication constitutes notification 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**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

#### Duration

3 years

Places available

9

Scholarships 7 University of Milan

#### Doctoral programme coordinator

Prof. Maria Teresa Carinci, full professor in sector IUS/07 mariateresa.carinci@unimi.it

#### Curricula

- 1. Private Law
- 2. Comparative Law
- 3. Commercial and industrial Law
- 4. Occupational Law
- 5. Civil procedural Law



#### Admission criteria

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-81 Development cooperation,

LMG/01 Law.

#### Doctoral programme selection phases

Table 5 - Deadlines for the doctoral programme in Comparative, Private, Civil Procedural and Business Law

CV and research project	Available from 11 September 2017 on the websites
assessment outcome	http://dcppciphd.ariel.ctu.unimi.it and
	http://www.dpsd.unimi.it/ecm/home
Examination schedule	Interview: 13 September 2017, at 9.30am, at the
	University of Milan (Room 113) - via Festa del Perdono
	no. 7 - 20122 Milan.
	The interview will be in Italian or English as elected by
	the candidate.
	the candidate.
	The calendar of dates, times and places of interviews
	and the title of the candidate's project will be
	published on the websites
	http://dcppciphd.ariel.ctu.unimi.it and
	http://www.dpsd.unimi.it/ecm/home.
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	This publication constitutes notification to the persons
	concerned.



#### Doctoral Programme in International and European Public 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**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places available 9

Scholarships 8 University of Milan

#### Doctoral programme coordinator

Prof. Diana Urania Galetta, full professor in the IUS/10 sector diana.galetta@unimi.it

#### Curricula

1. International and European Law



2. Constitutional and Administrative Law

#### Admission criteria

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

#### Table 6 - Deadlines for the doctoral programme in International and European Public Law

CV and research project assessment outcome	Available from 11 September 2017 on the website <a href="http://dipieuphd.ariel.ctu.unimi.it/">http://dipieuphd.ariel.ctu.unimi.it/</a>
Examination schedule	<i>Interview:</i> starting from 15 September 2017, at 9.00am, at the Dipartimento di Diritto pubblico italiano e sovranazionale (seminar hall) - via Festa del Perdono no. 7 - 20122 Milan.
	The interview will be in Italian or English as elected by the candidate. The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <u>http://dipieuphd.ariel.ctu.unimi.it/</u> .
	This publication constitutes notification to the persons concerned.



#### Doctoral Programme in Epidemiology, Environment and Public Healthcare

#### Learning Objectives

The doctoral programme focuses on training professionals and researchers who can contribute to the development of research methodologies in healthcare, from laboratories to clinics, from prevention to services for the protection and promotion of health in individuals and populations, in living environments and work places and in the application of economic principles to healthcare systems management.

Students will acquire a solid preparation in the quantitative disciplines required to devise and analyse studies for the identification of the determining factors of a disease and prognostic factors, of diagnostic-therapeutic programmes and of clinical research studies. Research will focus largely upon systems for the prevention and control of infectious diseases, including paediatric and chronic-degenerative diseases and those related to food, work and assistance. This will involve predictive modelling of disease risks and/or genetic susceptibility and cost/benefit analysis of possible prevention policies. The programme will also examine issues relating to work, environment and health, focusing research on topics of great social and healthcare importance; this cutting edge research will be of interest to many regulatory bodies and qualified research centres.

#### Academic disciplines

06/H (Clinical Gynaecology)

06/M (Public Healthcare)

07/H (Veterinary Medicine)

13/B (Economics)

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

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places Available

5

**Scholarships** 4 University of Milan

**Doctoral programme coordinator** Prof. Carlo La Vecchia, full professor in the MED/01, <u>carlo.lavecchia@unimi.it</u>

#### Curricula

#### 1. Biostatistics and Epidemiology

Università degli Studi di Milano Via Festa del Perdono 7 - 20122 Milano, Italia tel. +39 02503 111 - unimi@postecert.it



- 2. Hygiene and Public Health
- 3. Occupational Medicine and Industrial Hygiene

#### Admission criteria

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-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-physics 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-50 Planning and Management of Education Services,
- LM-51 Psychology,
- LM-54 Chemistry,
- LM-55 Cognitive Sciences,
- LM-56 Economics,
- LM-57 Adult and Continuing Education,
- LM-58 Universe Sciences,
- LM-59 Public and Corporate and Advertising and Communication,
- LM-60 Natural Sciences,
- LM-61 Nutrition,
- LM-62 Political Science,
- LM-63 Public Administration,



- LM-67 Sport Science for Prevention and Rehabilitation,
- LM-68 Sports Science and Technology,
- LM-69 Agricultural Science and Technology,
- LM-70 Food Science and Technology,
- LM-71 Industrial Chemistry
- LM-73 Forestry and Environmental 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-83 Statistical, Actuarial and Financial Sciences,
- LM-85 Pedagogy,
- LM-86 Zootechnics and animal technology,
- LM-87 Social Services and Policies,
- LM-88 Sociology and Social Research,
- LM/SNT1 Nursing and Midwifery,
- LM/SNT2 Rehabilitation Professions
- LM/SNT3 Healthcare Technology,
- LM/SNT4 Preventive Care Professions,
- LMG/01 Law

#### Doctoral programme selection phases

Table 7 - Deadlines for the Doctoral Programme in Epidemiology, Environment and Public Healthcare

CV and research project assessment outcome	Available from 11 September 2017 at <a href="http://www.discco.unimi.it">http://www.discco.unimi.it</a>
Examination schedule	<i>Interview</i> : <b>12 September 2017,</b> at <b>9.30am,</b> at the Dipartimento di Scienze cliniche e di comunità (Aula Magna - Clinica del Lavoro) - via S. Barnaba no.8 - 20122 Milan.
	The interview will be in Italian or English as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website



http://www.discco.unimi.it.

This publication constitutes notification 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, psychology and cognitive science, social science, art theory and criticism with the findings of philosophical research, both theoretical and historical. The programme makes use of the multidisciplinary skills of the Board of Lecturers and aims to provide 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 philosophy and scientific thought
- ii) Ethics and political thought
- iii) Image theory and phenomenology of experience
- iv) Logic and theory of languages
- v) Philosophy of mind and cognitive science
- vi) Anthropology and regional studies.

#### Academic disciplines

01/B (Computer Science)

- 05/D (Physiology)
- 10/G (Glottology and linguistics)
- 10/M (Germanic and Slavic Languages, Literature and Culture)
- 11/A (History)
- 11/B (Geography)
- 11/C (Philosophy)
- 11/E (Psychology)
- 14/B (Political History)

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

#### Duration

3 years

Places Available

Università degli Studi di Milano Via Festa del Perdono 7 - 20122 Milano, Italia tel. +39 02503 111 - unimi@postecert.it



#### Scholarships

5 University of Milan

#### Doctoral programme coordinator

Prof. Marcello Massimini, full professor in sector BIO/09 marcello.massimini@unimi.it

#### Admission criteria All classes of second cycle degrees

#### **Reference letters**

The Teaching committee 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

Table 8 - Deadlines for the Doctoral Programme in Philosophy and Human Sciences

CV and research project assessment outcome	Available from 8 September 2017 on the website http://www.dipafilo.unimi.it/ecm/home/scuola-di- dottorato and on the website http://eng.dipafilo.unimi.it/ecm/home/doctoral- school
Examination schedule	<i>Interview:</i> starting from 14 September 2017, at 9.00am, at the Dipartimento di Filosofia (Paci hall) - via Festa del Perdono no. 7- 20122 Milan
	The interview will be in Italian or English as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the websites <u>http://www.dipafilo.unimi.it/ecm/home/scuola-di- dottorato</u> and <u>http://eng.dipafilo.unimi.it/ecm/home/doctoral- school</u> . This publication constitutes notification to the persons concerned.



#### Doctoral Programme in Physics, Astrophysics and Applied Physics

#### Learning objectives

The main theme of this doctoral programme is physics in advanced sectors of pure and applied research. Research covers all areas of modern physics, as indicated in the 5 curricula which aim to facilitate the placement of doctoral students in specific sectors.

The required basic training is guaranteed by a combination of courses specific to this programme and others exceptionally borrowed from the second cycle degree programme, with examinations at the end of the first year. Moreover, doctoral students are required to attend an International School, with final assessment through a public seminar. The programme also provides various opportunities for discussion and exchanges among students in different programmes, particularly during a workshop at the end of the academic year.

Training is supplemented by coordinated series of subject- specific conferences ("Physics Colloquia"). At the same time, doctoral students will have to undertake original research under the guidance of a tutor and a co-tutor and report on their progress through annual seminars during which students present their findings to the University's scientific community. This programme also offers internships in Fundamental Physics or High Technology at National and International Laboratories and private Research Laboratories.

The doctoral programme is entirely in English.

#### Academic disciplines

02/A (Physics of fundamental interactions)

02/B (Condensed matter physics)

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

- 02/D (Applied physics, teaching and history of physics)
- 09/E (Electrical engineering, electronics and measurements)

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

**Places Available** 16

Scholarships 13 University of Milan

#### **Doctoral programme coordinator** Prof. Francesco Ragusa, full professor in sector FIS/01 <u>francesco.ragusa@unimi.it</u>



#### Curricula

- 1. Astrophysics
- 2. Condensed matter physics
- 3. Nuclear and particle physics
- 4. Theoretical physics
- 5. Applied physics

#### Admission criteria

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-17 Physics,

- LM-18 Computer Science,
- LM-20 Aerospace and Astronautical Engineering,
- LM-21 Biomedical Engineering,
- LM-22 Chemical Engineering
- LM-25 Automation Engineering,
- LM-27 Telecommunications Engineering,
- LM-28 Electrical Engineering,
- LM-29 Electronic Engineering,
- LM-30 Energy and Nuclear Engineering,
- LM-32 Computer Engineering,
- LM-33 Mechanical Engineering,
- LM-40 Mathematics,
- LM-44 Mathematical and Physical Modelling in Engineering,
- LM-53 Material Science and Engineering,
- LM-54 Chemistry,
- LM-58 Universe Sciences,
- LM-71 Industrial Chemistry
- LM-74 Geological Sciences and Technology,
- LM-75 Environment and Land Sciences and Technology,
- LM-79 Geophysics,
- LM-82 Statistics.



### **Reference letters**

The Teaching committee requires that two reference letters, drawn up according to Form 2 attached hereto, be sent by email to <a href="mailto:phd@fisica.unimi.it">phd@fisica.unimi.it</a>

### Doctoral programme selection phases

Table 9 - Deadlines for the Doctoral Programme in Physics, Astrophysics and Applied Physics

CV and research project assessment outcome	Available from 8 September 2017 at <a href="http://phd.fisica.unimi.it/admission/year2017/">http://phd.fisica.unimi.it/admission/year2017/</a>
Examination schedule	Interview: starting from 11 September 2017, at 2.00pm, at the Dipartimento di Fisica (Polvani hall) - via Celoria no. 16 - 20133 Milan.
	The interview will be in Italian or English as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://phd.fisica.unimi.it/admission/year2017/">http://phd.fisica.unimi.it/admission/year2017/</a> .
	This publication constitutes notification 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,
- a better preparation 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**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 vears

Places Available 8

Scholarships 8 University of Milan

#### Doctoral programme coordinator

Prof. Paolo Boldi, full professor in sector INF/01 paolo.boldi@unimi.it

### Admission criteria

All classes of second cycle degrees.



### **Reference letters**

The Teaching committee requires that one to three reference letters, drawn up according to Form 2 attached hereto, be sent by email to <u>phdcomputerscience@di.unimi.it</u>

#### Doctoral programme selection phases

Table 10 - Deadlines for the Doctoral Programme in Computer Science

CV and research project assessment outcome	Available from 8 September 2017 on the website <a href="http://dottorato.di.unimi.it/">http://dottorato.di.unimi.it/</a>
Examination schedule	Interview: starting from 11 September 2017, at 9.30am, at the Dipartimento di Informatica (meeting hall 1st floor) - via Comelico no. 39/41 - 20135 Milan.
	The interview will be held in English.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://dottorato.di.unimi.it/">http://dottorato.di.unimi.it/</a> .
	This publication constitutes notification to the persons concerned.



## Doctoral Programme in Clinical and Experimental Medicine

### Learning Objectives

The doctoral programme aims to train doctors who are able to conduct clinical research on pathogenesis, diagnosis, prognosis and therapeutic support in the main pathologies of internal and specialised medicine. All approaches will start from a clinical 'bedside' approach and will then be transferred to laboratory research or animal models and vice-versa. There will be collaboration with diagnostic, biotechnology and pharmaceutical companies with the aim of implementing collaborative studies in these fields. Such collaborations may facilitate job placement. Moreover, there will be collaborative work with research bodies and Italian and foreign universities, where doctoral students can complete periods of training and work.

Research will mainly focus on:

- hepatology and gastrointestinal diseases
- infectious diseases
- clinical microbiology
- diseases of the endocrine system
- haemostasis and thrombosis
- cardiovascular diseases
- medical emergencies
- bronchopulmonary pathologies

#### Academic disciplines

06/A (Pathology and Laboratory Diagnostics)

- 06/B (General Clinical Medicine)
- 06/D (Specialised Clinical Medicine)
- 06/L (Clinical Anaesthesiology)

### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

# Duration

3 years

**Places Available** 

6

**Scholarships** 5 University of Milan

#### Doctoral programme coordinator

Prof. Antonella D'Arminio Monforte, full professor in sector MED/17 antonella.darminio@unimi.it



### Admission criteria

Academic qualifications 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-41 Medicine and Surgery,

LM-54 Chemistry,

LM-60 Natural Sciences,

LM-61 Nutrition,

LM-70 Food Science and Technology,

LM-71 Industrial Chemistry

LM-82 Statistics,

LM/SNT3 Healthcare Technology

LM/SNT4 Preventive Care Professions

### **Reference letters**

The Teaching committee requires that two reference letters, drawn up according to Form 2 (attached hereto), be sent by email to <u>emilio.berti@unimi.it</u>.

#### Doctoral programme selection phases

Table 11 - Deadlines for the Doctoral Programme in Clinical and Experimental Medicine

CV and research project assessment outcome	Available from <b>12 September 2017</b> on the website <u>http://www.diss.unimi.it/ecm/home/didattica/dottorati/corso-</u> <u>di-dottorato-in-medicina-clinica-e-sperimentale</u>
Examination schedule	<i>Interview</i> : <b>18 September 2017,</b> at <b>10.00am,</b> at the Dipartimento di Fisiopatologia medico-chirurgica e dei trapianti (Aula Magna - Building 2) - via Pace no. 9 - 20122 Milan.
	The interview will be in Italian or English, as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://www.diss.unimi.it/ecm/home/didattica/dottorati/corso-di-dottorato-in-medicina-clinica-e-sperimentale">http://www.diss.unimi.it/ecm/home/didattica/dottorati/corso-di-dottorato-in-medicina-clinica-e-sperimentale</a> .
	This publication constitutes notification to the persons concerned.



## Doctoral Programme in Molecular and Translational Medicine

### Learning Objectives

Doctoral programme activities fall within the framework of the "Life Sciences" and their biomedical application, providing students with an understanding of the biological and physiopathological basis for treating and preventing diseases. The main objective is to provide unifying cross-sector knowledge and technologies which, in the post-genomic era, can combine basic, formerly distinct medical disciplines (biochemistry, biology, molecular biology, physiology, pharmacology, general pathology, immunology, genetics, virology, anatomical pathology) with applied medical sciences and medical research. Long-standing collaborations with industries in the fields of diagnostics, pharmaceuticals, IT and design of scientific equipment will be strengthened. This proves the interest of biotechnological and biomedical companies, which consider the activities of this programme as a concrete opportunity to step into or strengthen their presence in a steadily developing sector. At the same time, these collaborations represent a job placement opportunity.

### Academic disciplines

05/E (Experimental and Clinical Biochemistry and Molecular Biology) 05/F (Applied biology) 05/G (Experimental and Clinical Pharmacology) 06/A (Laboratory Pathology and Diagnostics) 06/B (General Clinical Medicine) 06/D (Specialized Clinical Medicine) 06/I (Clinical radiology)

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places Available 10

Scholarships 8 University of Milan

#### Doctoral programme coordinator

Prof. Riccardo Ghidoni, full professor in sector BIO/10 riccardo.ghidoni@unimi.it

Admission criteria All classes of second cycle degrees



## Doctoral programme selection phases

Table 12 - Deadlines for the Doctoral Programme in Molecular and Translational Medicine

CV and research project assessment outcome	Available from 13 September 2017 on the website http://sdmm.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx
Examination schedule	<i>Interview:</i> starting from 14 September 2017, at 9.30am, at the Dipartimento di Scienze della Salute (Krebs hall) - via A. di Rudinì no. 8 - 20142 Milan.
	The interview may be held in Italian or English, as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published at <a href="http://sdmm.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx">http://sdmm.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx</a> .
	This publication constitutes notification to the persons concerned.



## Doctoral Programme in Experimental Medicine and Medical Biotechnologies

### **Learning Objectives**

The doctoral programme focuses on the development and use of preclinical experimental approaches, advanced biotechnological and diagnostic laboratory methodologies for different fields of research on the aetiopathogenesis of human pathologies. Its main objectives are those of providing students with advanced technological and methodological skills in biomedicine, the ability to devise and complete research projects autonomously and to present experimental results. The programme also promotes exchanges with Italian and international research institutions and advanced training schools to achieve a high degree of internationalisation, also by involving foreign lecturers in research and training activities, enrolling foreign students and activating co-tutored individual programmes.

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/B (General Clinical Medicine)

06/D (Specialised Clinical Medicine)

06/M (Public healthcare)

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

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration

3 years

Places Available 7

Scholarships 6 University of Milan

#### Doctoral programme coordinator

Prof. Massimo Locati, full professor in sector MED/04 massimo.locati@unimi.it

#### Admission criteria

All classes of second cycle degrees



# Doctoral programme selection phases

Table 13 - Deadlines for the Doctoral Programme in Experimental Medicine and Medical Biotechnologies

CV and research project assessment outcome	Available from 12 September 2017 on the website <u>http://www.biometra.unimi.it/ecm/home/didattica/dottorati</u> <u>/medicina-sperimentale-e-biotecnologie-mediche</u> and at <u>http://eng.biometra.unimi.it/ecm/home/teaching/doctoral-</u> <u>schools/experimental-medicine-and-medical-biotechnologies</u>
Examination schedule	Interview: 13 September 2017, at 9.00am, at the Settore didattico (Hall D) at LITA - via Fratelli Cervi no. 93 - 20090 Segrate (MI).
	The interview will be held in English.
	The calendar of dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://www.biometra.unimi.it/ecm/home/didattica/dottorati/medicina-sperimentale-e-biotecnologie-mediche">http://www.biometra.unimi.it/ecm/home/didattica/dottorati/medicina-sperimentale-e-biotecnologie-mediche</a> and at <a href="http://eng.biometra.unimi.it/ecm/home/teaching/doctoral-schools/experimental-medicine-and-medical-biotechnologies">http://eng.biometra.unimi.it/ecm/home/didattica/dottorati/medicina-sperimentale-e-biotecnologie-mediche</a> and at <a href="http://eng.biometra.unimi.it/ecm/home/teaching/doctoral-schools/experimental-medicine-and-medical-biotechnologies">http://eng.biometra.unimi.it/ecm/home/teaching/doctoral-schools/experimental-medicine-and-medical-biotechnologies</a> .
	This publication constitutes notification to the persons concerned.



## Doctoral Programme in Integrated Biomedical Research

### Learning Objectives

The programme aims to provide students with skills in the scientific and project management methods applied to basic and applied physiological and morphofunctional research in the fields of biomedicine and sport. Lecturers aim to promote integrated qualitative and quantitative studies on biological, morphological and physiological aspects of biological structures at every level of structural organisation, from cells to tissues, from organs to the whole human body, their alterations and interactions between people and the environment. The convergence of biomorphological and physiological approaches is particularly important for those who wish to undertake advanced research in the field of biology and cell physiology, focusing in particular on the relationship between structure and function in cell membranes, where anatomy and physiology find room for synthesis and integration, on the nervous and endocrine systems, motor control, biomechanics of movement and locomotion, and on physical and sports activities.

### Academic disciplines

05/B (Animal biology and anthropology)

05/D (Physiology)

05/F (Applied Biology)

05/G (Experimental and Clinical Pharmaceutical Sciences)

05/H (Human anatomy and histology)

06/D (Specialised Clinical Medicine)

06/F (Integrated Clinical Surgery)

06/I (Clinical radiology)

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

09/G (Systems engineering and bioengineering)

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places Available 9

Scholarships 8 University of Milan

#### Doctoral programme coordinator

Prof. Chiarella Sforza, full professor in sector BIO/16 chiarella.sforza@unimi.it



## Curricula

- 1. Molecular and Cellular Physiology
- 2. Morphology
- 3. Neurosciences
- 4. Sport Sciences
- 5. Systems Physiology

## Admission criteria

All classes of second cycle degrees

### Doctoral programme selection phases

### Table 14 - Deadlines of Doctoral Programme in Integrated Biomedical Research

CV and research project assessment outcome	Available from 8 September 2017 on the website http://www.scibis.unimi.it/ecm/home/didattica/scuola- di-dottorato
Examination schedule	Interview: starting from 11 September 2017, at 9.00am, at the Dipartimento di Scienze Biomediche per la salute (hall C) - via Mangiagalli no.31 - 20133 Milan.
	The interview will be in Italian or English, as elected by the candidate, and will last 8 minutes.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <u>http://www.scibis.unimi.it/ecm/home/didattica/scuola-</u> <u>di-dottorato</u> .
	This publication constitutes notification to the persons concerned.



## Doctoral Programme in Environmental Sciences

### Learning Objectives

The doctoral programme provides solid preparation 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.

The primary objectives of the programme include providing and building the following:

- awareness and adequate knowledge of the multiple methodological, instrumental, analytical, statistical and model-based approaches to study of the environment;
- the skill to perform interdisciplinary integration and synthesis of know-how resulting from the study of the various components of environmental systems and their complex interactions;
- qualification and scientific productivity as preparatory elements for a career in research institutes or other professional frameworks.

The doctoral programme in Environmental Sciences is highly interdisciplinary, centred on ensuring high standards of learning in the integrated study of complex environmental systems regarding:

- biodiversity expressed at all levels of organisation, from genetic to molecular/metabolic and cellular, and to the organisation of organisms, populations and communities;
- relations at all organisational levels between bioethical factors, and between the latter and the abiotic environment, even in its anthropogenic components;
- diachronic and other interactions between humans and the environment in terms of effects of human activities and disturbance on highly natural environments and of the quality of living and working environments on toxicological risk and health hazards.

The programme particularly focuses on certain general themes in which members of the Faculty Committee have particular competence, namely:

- analysis of natural environments and those disturbed by humans; study of environmental pollution and its ecotoxicological consequences, especially the effects and mechanisms of action of exposure to contaminants (xenobiotics, endocrine disrupting agents, atmospheric particulate), and environmental stress on biological processes, *in vivo* and *in vitro* (damage to the DNA and to proteins, cell damage, reproductive anomalies, developmental changes, teratogenesis and other biomarkers in animal and human models), and genetic, epigenetic and molecular mechanisms that control the cell cycle and metabolism, or that form the molecular basis for resistance to parasites (in plant models);
- study of plant and animal models of genetic and environmental adaptation and determinism of phenotypic variability in morphological, physiological and behavioural characters; expression of phenotypic plasticity and evolution of populations, including speciation



processes, in response to variable environmental conditions due to natural and man-made effects, consequences of climate change, fragmentation and alteration of habitats and direct human interference; study of symbiotic relations with particular reference to pathogenic mechanisms in antagonist symbiotic systems, evolutionary and phylogenetic aspects of symbiotic relations and application of symbionts for biocontrol;

- analysis of consequences of climatic factors, alterations in the structure of past and present natural habitats and transformations in zootechnical, agricultural and forestry practices on demography and population distribution, community composition and conservation of endangered species to predict, prevent and mitigate the socioeconomic and other consequences of environmental damage, and development of remediation methods for degraded environments and biocontrol of antieconomic species;
- study of land surface modelling processes and evolution with regard to the structural and lithological component, climate control, human component and present and past biotic communities; conservation of cultural and paleontological heritage and landscape; variations in geomorphological systems and subsequent changes in environmental hazard and risk scenarios; study of soil, surface deposits and landscape as evidence of interactions between humans and the environment; environmental indicators of climate change and palaeobiology of fossil populations;
- research on teaching methods used in secondary schools for subjects related to the programme.

## Programme website

http://users2.unimi.it/environ\_sci/

### 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)

13/A (Economics)

14/D (Applied Sociology)

# **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places available 9

**Scholarships** 7 University of Milan

# Doctoral programme coordinator

Prof. Nicola Saino, full professor in sector BIO/07 nicola.saino@unimi.it

Admission criteria All classes of second cycle degrees

## Doctoral programme selection phases

## Table 15 - Doctoral Programme in Environmental Sciences

CV and research project assessment outcome	Available from 13 September 2017 at <a href="http://users2.unimi.it/environ_sci/">http://users2.unimi.it/environ_sci/</a>
Examination schedule	<i>Interview</i> : 14 September 2017, at 9.00am, at the Dipartimento di Bioscienze (Hall BS) - via Celoria no. 26 - 20133 Milan.
	The interview is in English. The research project should be illustrated with a Power Point presentation. Time available per candidate: 12 minutes.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the web page <a href="http://users2.unimi.it/environ_sci/">http://users2.unimi.it/environ_sci/</a> .
	This publication constitutes notification to the persons concerned.



# Doctoral Programme in Biochemistry

### Learning objectives

The doctoral programme promotes training and research in the field of biochemical, biotechnological and clinical sciences applied to biological, agri-food, veterinary and medical sciences, to promote and maintain human health, improve industrial and agri-food production and, in a broad sense, solve problems that concern the wellbeing of individuals and society. It is presented as an interdepartmental initiative designed to encourage cooperation and establish relations based on information exchange with high multidisciplinary standards with Italian and international research institutions, and with advanced education institutions, as well as cooperation with entrepreneurial production sharing the same interests.

The principal objective of the doctoral programme is to achieve international acknowledgement by involving foreign teaching staff in structured research and training activities, enrolling foreign doctoral students, enabling dissertations jointly organised by both universities, and promoting study and research periods abroad for doctoral students.

The programme is entirely in English.

### Academic disciplines

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

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

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

### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

**Duration** 3 years

Places available

**Scholarships** 4 for the University of Milan

### Doctoral programme coordinator

Prof. Sandro Sonnino, full professor in sector BIO/10 sandro.sonnino@unimi.it

#### Admission criteria

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-22 Chemical Engineering
- LM-35 Environmental and Land Engineering;
- LM-41 Medicine and Surgery
- LM-42 Veterinary Medicine
- LM-46 Dentistry and Dental prosthetics
- LM-47 Organisation and Management of Services for Sports and Exercise
- LM-54 Chemistry
- LM-60 Natural Sciences
- LM-61 Nutrition,
- LM-67 Science and Techniques of Preventive and Adapted Motor Activities
- LM-68 Sports Science and Technology
- LM-69 Agricultural Science and Technology
- LM-70 Food Science and Technology
- LM-71 Industrial Chemistry
- LM-75 Environment and Land Sciences and Technology
- LM-86 Zootechnics and animal technology
- LM/SNT1 Nursing and Midwifery
- LM/SNT2 Rehabilitation Professions
- LM/SNT3 Health Professions for Technical Assistance
- LM/SNT4 Preventive Care Professions
- LMR/02 Conservation and Restoration of Cultural Heritage.

### Doctoral programme selection phases

Table 16 - Deadlines for the Doctoral Programme in Biochemistry

CV and research project assessment outcome

Available from 12 September 2017 (in the afternoon) on the website http://www.biometra.unimi.it/ecm/home/didattica/dottorati/scienze-biochimiche



### Examination schedule

*Interview*: 14 September 2017, at 9.30am, at the Dipartimento di Biotecnologie mediche e medicina traslazionale - via Fratelli Cervi no.93 - 20090 Segrate (MI).

The interview is in English.

The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <u>http://www.biometra.unimi.it/ecm/home/didattica</u> /dottorati/scienze-biochimiche

This publication constitutes notification 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

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration

3 years

Places available

6

Scholarships

6 University of Milan



### Doctoral programme coordinator

Prof. Alberto Cadioli, full professor in sector L-Fil-Let/11 alberto.cadioli@unimi.it

### Admission criteria

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

Table 17 - Deadlines for the Doctoral Programme in Literature, Arts and Environmental Heritage

CV and research project assessment outcome	Available from 12 September 2017 on the website <u>http://www.studilefili.unimi.it/ecm/home/didattica/dottor</u> <u>ati/dottorato-in-scienze-del-patrimonio-letterario-artistico-</u> <u>e-ambientale</u> and <u>http://www.bac.unimi.it/ecm/home/didattica/dottorati</u>
Examination schedule	<i>Interview</i> : starting from 14 September 2017, at 9.30am, at the Dipartimento di Studi letterari, filologici e linguistici - sezione Modernistica - via Festa del Perdono no. 7 - 20122 Milan.
	The interview will be in Italian or English, as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website at <u>http://www.studilefili.unimi.it/ecm/home/didattica/dottor</u> <u>ati/dottorato-in-scienze-del-patrimonio-letterario-artistico- e-ambientale</u> and <u>http://www.bac.unimi.it/ecm/home/didattica/dottorati</u> . This publication constitutes notification to the persons concerned.



## **Doctoral Programme in Nutrition Sciences**

## Learning objectives

The doctoral programme in Nutrition Sciences promotes integrated multidisciplinary and translational training to tackle physiological problems and pathological processes over the entire life cycle, from conception and pregnancy to geriatrics, with special reference to chronic-degenerative diseases, such as tumours, cardiovascular and neurological diseases related to lifestyle and particularly nutrition. The doctoral programme will also provide in-depth knowledge of animal nutrition and food safety with special reference to innovative nutritional strategies to improve foodstuffs that can be beneficial to human health.

## 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 See <u>http://www.unimi.it/ENG/courses/111279.htm</u>

Duration 3 years

Places available 9

Scholarships 7 University of Milan

### Doctoral programme coordinator

Prof. Luciano Pinotti, full professor in sector AGR/18 luciano.pinotti@unimi.it



### Curricula

- 1. Nutrition and lifestyles in health and disease in the various phases of the life cycle. Multidisciplinary approach to the study of nutrient-sensitive metabolic routes.
- 2. Animal nutrition, food safety and impact on human health

### Admission criteria

All classes of second cycle degrees

#### Doctoral programme selection phases

#### Table 18 - Deadline for Doctoral Programme in Nutrition Sciences

CV and research project assessment outcome	Available from 13 September 2017 on the website at
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## Doctoral Programme in Earth Sciences

### Learning objectives

The doctoral programme in Earth Sciences aims to train young researchers to investigate a broad range of geoscience topics. The programme is designed to provide advanced specialist training in

- 1. basic, applied and theoretical research on problems related to the structure, composition, evolution and dynamics of the Earth;
- 2. characterisation and modelling of the Earth System;
- 3. basic and applied research on land use, natural risks, energy and water resources, geomaterials, prospecting for minerals.

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) trace the development and evolution of our planet by combining experimental observations and models;

b) define natural resources (oil, gas, mineral raw materials, water), their use and sustainable exploitation;

- c) evaluate geological risks (e.g., earthquakes, volcanic eruptions, floods, landslides);
- d) design geological engineering works 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 learning programme is organised to meet teaching and research requirements related to the broad spectrum of geosciences. The research themes 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, working 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) 08/A (Infrastructural and land engineering)

## **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places available 5

**Scholarships** 4 University of Milan

## Doctoral programme coordinator

Prof. Elisabetta Erba, full professor in sector GEO/01 elisabetta.erba@unimi.it

## Admission criteria

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 Teaching committee 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

#### Table 19 - Deadlines for the Doctoral Programme in Earth Sciences

CV and research project assessment outcome	Available from 13 September 2017 on the website <a href="http://users.unimi.it/sdtab/">http://users.unimi.it/sdtab/</a>
Examination schedule	<i>Interview</i> : 15 September 2017, at 9.30am, at the Dipartimento di Scienze della Terra "A. Desio" (Meeting room - 3rd floor) - Mangiagalli no.34 - 20133 Milan.
	The interview will be in Italian or English as elected by the candidate.
	The calendar of dates, times and places of interviews and the title of the candidate's project will be published on the website <u>http://users.unimi.it/sdtab/</u>
	This publication constitutes notification 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**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

#### Duration

3 years

### Places available

4



### Scholarships

4 University of Milan

## Doctoral programme coordinator

Prof. Giancarlo Aldini, full professor in sector CHIM/08 giancarlo.aldini@unimi.it

### Admission criteria

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-22 Chemical 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 Teaching committee requires that one reference letter, drawn up according to Form 2 attached hereto, be sent by email to the doctoral programme coordinator.

#### Doctoral programme selection phases

Table 20 - Deadlines for the Doctoral Programme in Pharmaceutical Sciences

CV and research project assessment outcome	Available from 10 September 2017 on the website at <a href="http://eng.disfarm.unimi.it/ecm/home/teaching/doctoral-schools">http://eng.disfarm.unimi.it/ecm/home/teaching/doctoral-schools</a>
Examination schedule	<i>Interview:</i> starting from 15 September 2017, at 10.00am, at the Dipartimento di Scienze Farmaceutiche (Meeting room - 1st floor) - via L. Mangiagalli no. 25 - 20133 Milan.
	The interview will be in Italian or English as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website at <u>http://eng.disfarm.unimi.it/ecm/home/teaching/doctoral-</u> <u>schools</u> .



This publication constitutes notification to the persons concerned.



## Doctoral Programme in Experimental and Clinical Pharmacological Sciences

### Learning objectives

The doctoral programme, a third cycle programme, makes the most of the multidisciplinary knowledge of the Board of Lecturers to train pharmacologists expert in the latest applicational aspects of pharmacology, including:

- physiopathological and biomolecular investigational notions for finding therapeutic tools highly specific for single diseases and individual patients;
- investigational tools to study the mechanism of action, pharmacological/therapeutic effects and undesirable or potentially toxic aspects of active compounds, including those of plant origin (pharmacognosy);
- innovative technologies with high qualitative and quantitative standards for development, preclinical evaluation and clinical use of drugs;
- toxicological expertise in identifying potential adverse effects of active ingredients in the preclinical and clinical phases of a study, including the definition of criteria to protect health against hazards resulting from direct intake (e.g., medications, food additives) or indirect intake (e.g., environmental pollutants, industrial solvents) of chemical, physical and biological agents.

In conclusion, students will develop "pharmacological" competence useful for academic and industrial research, allowing effective "bench to bed" transfer and a multidisciplinary approach essential for public health.

The programme is conducted entirely in English.

#### Academic disciplines

05/G (Experimental and Clinical Pharmacological Sciences)

### Research topics See http://www.unimi.it/ENG/courses/111279.htm

Duration 3 years

Places available 8

Scholarships 6 University of Milan

## Doctoral programme coordinator

Prof. Alberto Corsini, full professor in sector BIO/14 alberto.corsini@unimi.it



## Admission criteria

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-41 Medicine and Surgery,

LM-61 Nutrition,

LM-70 Food Science and Technology.

### **Reference letters**

The Teaching Committee requires that two (2) reference letters, drawn up according to Form 2 attached hereto, be sent by email to the coordinator and to the address <u>dottorato.sfsc@unimi.it</u>

### Doctoral programme selection phases

Table 21 - Deadlines for the Doctoral Programme in Experimental and Clinical Pharmacological Sciences

CV and research project assessment outcome	Available from 11 September 2017 on the website at <a href="http://users2.unimi.it/scuolascifarm/">http://users2.unimi.it/scuolascifarm/</a>
Examination schedule	<i>Interview:</i> starting from 13 September 2017, at 9.30am, at the Dipartimento di Scienze farmacologiche e biomolecolari - via Balzaretti no. 9 - 20133 Milan.
	The interview will be in English.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://users2.unimi.it/scuolascifarm/">http://users2.unimi.it/scuolascifarm/</a> .
	This publication constitutes notification to the persons concerned.



## Doctoral Programme in Law "Cesare Beccaria"

### Learning objectives

The programme provides high-level interdisciplinary training during which the doctoral student is offered the possibility of further study of law, with special reference to criminal law and procedure, Roman law, history, philosophy and sociology of law, and ecclesiastic and canon law.

The programme includes lessons and active participation at seminars, during which the student will be encouraged to research different topics in detail. He/she will also be involved in research projects promoted by the Board of Lecturers and will be urged to write and publish contributions in the framework of these projects.

During the three-year period, the student will write an original scientific paper under the supervision of one or more tutors. The paper may be interdisciplinary.

A number of courses and seminars may be conducted in English. Part of the programme may also be conducted at a foreign university or research institute.

### Academic disciplines

12/C (Constitutional and ecclesiastical law)

12/G (Criminal law and procedure)

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

14/C (Sociology)

Research topics See http://www.unimi.it/ENG/courses/111279.htm

Duration 3 vears

Jycars

Places available

8

Scholarships 7 University of Milan

Doctoral programme coordinator Prof. Claudio Luzzati, full professor in sector IUS/20 <u>claudio.luzzati@unimi.it</u>

### Curricula

- 1. Criminal Law and Procedure
- 2. Roman law and history of law
- 3. Philosophy and sociology of law, ecclesiastic and canon law



### Admission criteria

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-52 International Relations,

LM-56 Economics,

LM-62 Political Sciences,

LM-63 Public Administration,

LM-78 Philosophy,

LM-81 Development Cooperation,

LM-84 History,

LM-88 Sociology and social research,

LMG/01 Law.

#### **Reference letters**

The Teaching committee requires that one reference letter, drawn up according to Form 2 attached hereto, be sent by email to <u>katia.righini@unimi.it</u>.

#### Doctoral programme selection phases

#### Table 22 - Deadlines for the Doctoral Programme in Law "Cesare Beccaria"

CV and research project assessment outcome	Available from 11 September 2017 on the website <u>http://sgcbphd.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx</u> <u>?name=how</u>
Examination schedule	Interview: starting from 12 September 2017, at 11.00am, at the Dipartimento di Scienze giuridiche "Cesare Beccaria" - via Festa del Perdono no. 7 - 20122 Milan.
	The interview will be in Italian or English, as elected by the candidate.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://sgcbphd.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx">http://sgcbphd.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx</a> <a href="mailto:?name=how">?name=how</a> .
	This publication constitutes notification to the persons concerned.



# **Doctoral Programme in Mathematical Sciences**

### Learning objectives

The doctoral programme in Mathematical Sciences aims to teach students the research techniques and methods typical of the sectors of contemporary Mathematics and their applications, both qualitative and quantitative, so as to obtain the wide ranging scientific and cultural autonomy required to produce original and significant results. The programme will produce graduates with expertise in exploiting the full potential of mathematical tools and methods and statistics to tackle the intrinsic complexity of problems posed by the applied sciences and industry. The first year syllabus includes advanced theory and workshops held by international scholars chosen by the Board of Lecturers to offer students the opportunity to establish direct contacts with the international scientific community. Doctoral students will have personalised courses under the guidance of a tutor. Once mandatory attendance of courses and examinations are completed, students can concentrate on their chosen research project. Students are assessed on the basis of their doctoral thesis, to which the three-year doctoral programme dedicates considerable attention.

## Academic disciplines

01/A (Mathematics) 09/H (Computer Engineering) 13/D (Statistics and Mathematical Methods for Decision-making)

### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places available 10

Scholarships 8 University of Milan

#### Doctoral programme coordinator

Prof. Vieri Mastropietro, full professor in sector MAT/07 vieri.mastropietro@unimi.it

### Admission criteria

All classes of second cycle degrees

### **Reference letters**

The Teaching committee requires that two reference letters, drawn up according to Form 2 attached hereto, be sent by email to <a href="mailto:segrdott.mat@unimi.it">segrdott.mat@unimi.it</a>.



### Doctoral programme selection phases

#### Table 23 - Deadlines for the Doctoral Programme in Mathematical Sciences

CV and research project assessment outcome

Examination schedule

Available from 11 September 2017 on the website <a href="http://www.mat.unimi.it/dottorati">http://www.mat.unimi.it/dottorati</a>

*Interview:* starting from 14 September 2017, at 9.30am, at the Dipartimento di Matematica "F. Enriques" - via Saldini no. 50 - 20133 Milan.

The interview will be in Italian or English, as elected by the candidate.

The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website at http://www.mat.unimi.it/dottorati/.

This publication constitutes notification to the persons concerned.



## Doctoral Programme in Oral Sciences

### Learning objectives

The aim of this programme is to train clinical and biological researchers to develop and use experimental procedure for basic research into the etiopathogenesis of oral pathology and for applied research into efficacy of therapies. The doctoral programme is for dentists, doctors, veterinarians, biologists, biotechnologists, bioengineers and the like. Oral sciences are multidisciplinary: indeed advances have been made by collaboration of researchers with different backgrounds. Besides specific training in current know-how and research trends in dental sectors (such as periodontics, implantology, oral microbiology, biomaterials) the doctoral programme provides a methodological basis for autonomous design and development of research *in vitro*, with animal models, as well as clinical studies. Candidates learn how to search, understand and interpret the scientific literature, analyse experimental data with appropriate statistical methods, write and publish scientific reports or present them at conferences. They receive general training in research management, research systems and funding, research project design for national and international competitions, valorisation of research results and intellectual property, language refinement and computing.

The programme is entirely in English.

### Academic disciplines

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

05/G (Experimental and Clinical Pharmacological Sciences)

05/H (Human Anatomy and Histology)

06/A (Pathology and Laboratory Diagnostics)

06/D (Specialised Clinical Medicine)

06/E (Specialised Clinical Surgery)

06/F (Integrated Clinical Surgery)

06/M (Public Healthcare)

### **Research topics**

See http://www.unimi.it/ENG/courses/111279.htm

#### Duration

3 years

Places available

5

**Scholarships** 4 University of Milan



### Doctoral programme coordinator

Prof. Massimo Del Fabbro, associate professor in sector MED/28 massimo.delfabbro@unimi.it

### Admission criteria

All classes of second cycle degrees

#### **Reference letters**

The Teaching committee requires that one reference letter, drawn up according to Form 2 attached hereto, be sent by email to the programme coordinator.

#### Doctoral programme selection phases

#### Table 24 - Deadlines for the Doctoral Programme in Oral Sciences

CV and research project assessment outcome	Available from <b>8 September 2017</b> on the website <a href="http://www.disbioc.unimi.it/ecm/home">http://www.disbioc.unimi.it/ecm/home</a>
Examination schedule	<i>Interview</i> : 11 September 2017, at 9.30am, at the Dipartimento di Scienze biomediche, chirurgiche ed odontoiatriche (basement lecture class) - via Commenda no. 10 - 20122 Milan.
	The interviews will be in English and will last 15 minutes.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://www.disbioc.unimi.it/ecm/home">http://www.disbioc.unimi.it/ecm/home</a> .
	This publication constitutes notification 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/C (Organic, Industrial)
- 03/D (Pharmaceutical, Technological, Nutritional)
- 05/B (Animal Biology and Anthropology)
- 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/F (Food Science and Technologies)
- 07/I (Agricultural microbiology)

#### **Research topics**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

#### Duration

3 years

### Places available

8

**Scholarships** 6 University of Milan

Università degli Studi di Milano Via Festa del Perdono 7 - 20122 Milano, Italia tel. +39 02503 111 - unimi@postecert.it



#### Doctoral programme coordinator

Prof. Francesco Bonomi, full professor in sector BIO/10 francesco.bonomi@unimi.it

### Curricula

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

#### Admission criteria

All classes of second cycle degrees

#### Doctoral programme selection phases

#### Table 25 - Deadlines for the Doctoral Programme in Food Systems

CV and research project assessment outcome	Available from 13 September 2017 on the website at <a href="http://sites.unimi.it/foodsystems/">http://sites.unimi.it/foodsystems/</a>
Examination schedule	<i>Interview</i> : 14 September 2017, at 9.00am, at the Dipartimento di Scienze per gli alimenti, la nutrizione e l'ambiente - via Celoria no. 2 - 20133 Milan.
	The interview will be in English.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <a href="http://sites.unimi.it/foodsystems/">http://sites.unimi.it/foodsystems/</a>
	This publication constitutes notification to the persons concerned.



### Doctoral Programme in Veterinary and Animal Science

#### Learning objectives

The objectives of this programme are:

- 1. to coordinate third cycle learning activities for all disciplines related to Veterinary Science and Animal Production;
- 2. to provide the opportunity for scientific and cultural development of young graduates in disciplines that belong to this sector by developing advanced research programmes and providing specialised teaching programmes;
- 3. to use the network of current collaborations and agreements between proponent teaching staff and industry and enterprise in the above sectors;
- 4. to exploit the many active partnerships with leading Italian and international research institutions to acquire authority and multidisciplinarity for the development of new and more functional partnerships;
- 5. to promote internationalisation by involving foreign scholars and students in organised research and training activities.

The programme is entirely in English.

#### Programme website

http://users2.unimi.it/vas/

#### 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

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

#### Duration

3 years

Places available

Scholarships 14 University of Milan



#### Doctoral programme coordinator

Prof. Fulvio Gandolfi, full professor in sector VET/01 <u>fulvio.gandolfi@unimi.it</u>

#### Admission criteria

All classes of second cycle degrees

#### **Reference letters**

The Teaching committee requires that two reference letters, drawn up according to Form 2 attached hereto, be sent by email to <u>phdcourse.vas@unimi.it</u>.

#### Doctoral programme selection phases

Table 26 - Deadlines for the Doctoral Programme in Veterinary and Animal Science

CV and research project<br/>assessment outcomeAvailable from 11 September 2017 on the website at<br/>http://users2.unimi.it/vas/Examination scheduleInterview: starting from 13 September 2017, at<br/>10.00am, at the former Facoltà di Medicina<br/>veterinaria - via Celoria no.10 - 20133 Milan.<br/>The interview will be in English.<br/>The calendar with dates, times and places of<br/>interviews and the title of the candidate's project will<br/>be published on the website<br/>http://users2.unimi.it/vas/.This publication constitutes notification to the persons<br/>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**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration

3 years

**Places available** 

5

#### Scholarships

3 University of Milan 2 funded by Fondazione Collegio Carlo Alberto

#### Doctoral programme coordinator

Prof. Gabriele Ballarino, full professor in sector SPS/09 gabriele.ballarino@unimi.it

#### Admission criteria

All classes of second cycle degrees



#### **Reference letters**

The Teaching committee requires that two reference letters, drawn up according to Form 2 attached hereto, be sent by email to <u>call.esls@unimi.it</u>

#### Doctoral programme selection phases

Table 27 - Deadlines for the Doctoral Programme in Economic Sociology and Labour Studies

CV and research project assessment outcome	Available from 13 September 2017 on the website at <a href="http://www.nasp.eu/training/phd-programmes/esls.html">http://www.nasp.eu/training/phd-programmes/esls.html</a>	
Examination schedule	Interview: starting from 14 September 2017, at 2.00pm the Dipartimento di Scienze sociali e politiche (seminar hall) - via Conservatorio no. 7 - 20122 Milan.	
	The interview will be in English.	
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website at <a href="http://www.nasp.eu/training/phd-programmes/esls.html">http://www.nasp.eu/training/phd-programmes/esls.html</a> .	
	This publication constitutes notification to the persons concerned.	



### Doctoral Programme in History, Culture and Social and Institutional Theories

#### Learning objectives

This doctoral programme centres on the historical background of society, culture and institutions, considered in all its complexity and dynamics. The various perspectives can be briefly summarised as the expressions of cultural, political, religious, economic, institutional and administrative life. Appropriate tools will also be provided for a detailed study of methodology and correct use of sources.

The primary aim of doctoral programme lessons is to develop the capacity of doctoral students for advanced standard historical research. To achieve this goal, they will be offered the necessary material and instruments to autonomously define an investigational method. The programme is designed to cultivate the critical sensitivity of doctoral students enabling them to understand the character and unfolding of events and ideas in their ideal formulations and factual expression, and to promote in-depth knowledge of the tools useful for this purpose.

Besides rigorous methodology, doctoral students will also acquire specific competences and know-how, supervised by teaching staff assigned to the programme. In this field, the interests of members of the Board of Lecturers range from the multiple facets of historical and institutional issues to archival studies, paleography, bibliography and publishing, from historical methodology to economic history, from religious history to the history of thought.

These objectives are also intended to promote internationalisation, favouring a broadening of horizons through periods of study abroad and an international teaching approach.

#### Academic disciplines

10/A (Archaeology) 11/A (History) 13/C (Economic History) 14/B (Political History)

Research topics See <u>http://www.unimi.it/ENG/courses/111279.htm</u>

**Duration** 3 years

Places available 4

**Scholarships** 4 University of Milan

Doctoral programme coordinator Prof. Daniela Saresella, full professor in sector M-STO/04 <u>daniela.saresella@unimi.it</u>



#### Admission criteria

All classes of second cycle degrees

#### **Reference letters**

The Teaching committee requires that a reference letter, drawn up according to Form 2 attached hereto, be sent by email to <u>emanuela.scarpellini@unimi.it</u>

#### Doctoral programme selection phases

Table 28 - Deadlines for the Doctoral Programme in History, Culture and Social and Institutional Theories

CV and research project assessment outcome

Examination schedule

Available from 8 September 2017 on the website at <a href="http://www.studistorici.unimi.it">http://www.studistorici.unimi.it</a>

*Interview:* 11 September 2017, at 9.30am, at the Dipartimento di Studi storici - (Seminar hall) - via Festa del Perdono no. 7 - 20122 Milan.

The interview will be in Italian or English, as elected by the candidate.

The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website

http://www.studistorici.unimi.it .

This publication constitutes notification 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**

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

#### Duration

3 years

#### Places available

6



#### Scholarships

6 University of Milan

### Doctoral programme coordinator

Prof. Giuliana Garzone, full professor in sector L-LIN/12 giuliana.garzone@unimi.it

#### Admission criteria

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

Table 29 - Deadlines for the Doctoral Programme in Linguistic, Literary and Intercultural Studies from European and Extra-European Perspectives

CV and research project assessment outcome	Available from 8 September 2017 on the website at <a href="http://www.lingue.unimi.it">http://www.lingue.unimi.it</a>
Examination schedule	Interview: 12 September 2017, at 10.00am, at the Dipartimento di Scienze della mediazione linguistica e di studi interculturali - Piazza L. Montanelli no. 1 - 20099 Sesto San Giovanni (MI).
	The interview will be in Italian or English, as elected by the candidate.
	Candidates sit for a preliminary oral examination of language skills in the language elected in the research project. The examination is held the same day, time and place as the interview.
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website <u>http://www.lingue.unimi.it</u> .
	This publication constitutes notification to the persons concerned.



### Doctoral Programme in Studies on Organized Crime

#### Learning objectives

The doctoral programme in Studies on Organized Crime aims to fulfil the need for highly specialized individuals in a field of such complexity and importance that new scientific knowhow, as well as professional profiles and sensibilities, are required. It also aims to provide students with the knowledge (in sociology, history, law, economics, etc.) required to identify, define and contrast manifestations of organized crime, even within the scope of prevention, on the basis of sound theoretical foundations and appropriate methodological approaches.

#### Academic disciplines

11/A (History)
12/C (Constitutional and ecclesiastical law)
12/D (Administrative and tax law)
12/E (International, European Union, comparative, economic, market and maritime law)
12/G (Criminal law and procedure)
12/H (Roman law, history of medieval and modern law, and philosophy of law)
13/B (Commercial and labour law)
13/C (Economic History)
13/D (Statistics and mathematical methods for decision-making)
14/A (Political theory)
14/B (Political History)
14/C (Sociology)

14/D (Applied sociology)

### Research topics

See <a href="http://www.unimi.it/ENG/courses/111279.htm">http://www.unimi.it/ENG/courses/111279.htm</a>

Duration 3 years

Places available 5

Scholarships 4 University of Milan

#### Doctoral programme coordinator

Prof. Fernando dalla Chiesa, full professor in sector SPS/09 fernando.dallachiesa@unimi.it

#### Admission criteria

All classes of second cycle degrees



#### **Reference letters**

The Teaching committee requires that two reference letters, drawn up according to Form 2 attached hereto, be sent by email to <a href="mailto:cross@unimi.it">cross@unimi.it</a>

#### Doctoral programme selection phases

#### Table 30 - Deadlines for the Doctoral Programme in Studies on Organized Crime

CV and research project assessment outcome	Available from 14 September 2017 on the website at: <u>http://www.cross.unimi.it/</u>	
Examination schedule	<i>Interview</i> : 16 September 2017, at 8.30am, at Milan University's Osservatorio sulla criminalità organizzata - CROSS - via Livorno. no. 1 - 20122 Milan.	
	The interview will be in Italian or English, as elected by the candidate.	
	The calendar with dates, times and places of interviews and the title of the candidate's project will be published on the website at <u>http://www.cross.unimi.it/</u> .	
	This publication constitutes notification 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 n. 445/2000)

Il sottoscritto/The undersigned		
cognome/surname	nome/name	
nato a/born in	il/on	
consapevole delle sanzioni penali richian	nate dall'articolo 76 del Dpr 445/2000 in caso di di	chiarazioni 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, sono conformi all'originale: that the publications and the qualifications listed below, produced as copies, comply with the originals:

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

Data/date

Firma/Signature

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

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 law in force.



Form 1

### PROGETTO DI RICERCA / RESEARCH PROJECT

Cognome e nome del candidato Applicant's Name	
Corso di dottorato PhD programme	

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.



### Form 2 (IT)

### LETTERA DI REFERENZA

Cognome e nome del	Corso di	
candidato	dottorato	

Da compilare in tutte le parti

Cognome e nome del referente	Ruolo	
Università/Ente		
Indirizzo	Città	
САР	Paese	
Telefono	Email	
Data		·

Come valuta la qualità del candidato rispetto ad altri studenti di pari livello formativo (studenti di un corso, laureandi, ecc...)?

Sotto la media (50%)	Top 50%	Тор 25%	Тор 10%	Тор 5%	Тор 2%

Come valuta l'attitudine del candidato alla attività di ricerca?

Inabilitato a rispondere	Sotto la media	Media	Buona	Ottima	Eccezionale

Commento giudizio personale sul ca	ndidato	



### Form 2 (EN)

### LETTER OF REFERENCE FORM

Applicant's Name	Progr	ramme
------------------	-------	-------

To be completed in all areas

Referee's name	Position/Title	
Institution/Company		
Address	City	
Zipcode	Country	
Phone contact	Email	
Date		

On the following scale, please rank the applicant against other students with comparable education (course students, those about to graduate, etc.).

Bottom 50%	Top 50%	Тор 25%	Тор 10%	Тор 5%	Тор 2%

Please rate this applicant in overall promise for the doctorate (check one)

Unable to evaluate	Below Average	Average	Good	Outstanding	Exceptional

Comments on your personal evaluation of the candidate			



#### Form 3

#### **ONLINE INTERVIEW**<sup>1</sup>

I, (Surname)\_\_\_\_\_ (Name)

Passport or Identity Card: no. \_\_\_\_\_

ask to sit the entrance examination in my own country. For this purpose:

I am indicating where I will sit the examination:

	ONLINE INTERVIEW
	The University of
	The Institute of
	The Italian Embassy in
	Other

\_\_\_\_\_

LOCATED I	N
-----------	---

Address:		No.	Zip Code:
Town/City:	Coun	try:	
Telephone:			
E-mail:			
Skype or other account name:			

• I declare under my own responsibility that I will be identified by the following person<sup>2</sup>:

ONLINE INTERVIEW	
Surname:	
Name:	
Date of birth:	
Place of birth:	
Tel.:	
e-mail:	
Qualification:	
Passport or identity card: no	

Date \_\_\_\_\_Signature \_\_\_\_\_

<sup>&</sup>lt;sup>1</sup> Complete only if you are a foreign national not resident in Italy who wishes to sit the entrance exam in your own home country

<sup>&</sup>lt;sup>2</sup> The person who is going to identify the candidate cannot be the candidate.

Università degli Studi di Milano

Via Festa del Perdono 7 - 20122 Milano, Italia

tel. +39 02503 111 - unimi@postecert.it



FORM 4

DICHIARAZIONE di aver diritto all'esenzione di cui all'art. 2 Exemption Declaration Form (pursuant to art. 2)

Il sottoscritto/The undersigned	
cognome/surname	_nome/name
nato a/born in	il/on

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

- □ di aver conseguito, o che conseguirà entro il 31 ottobre 2017, una laurea magistrale, con specializzazione nella lingua inglese, in una delle seguenti Classi di laurea magistrale: LM-37 Lingue e letterature moderne europee e americane, LM-38 Lingue moderne per la comunicazione e la cooperazione internazionale, LM-39 Linguistica, LM-94 Traduzione specialistica e interpretariato, o Master's Degree equipollente; that he/she has obtained or will obtain by 31 October 2017, a second cycle degree (Master's Degree), where English is the specialist subject, in one of following programmes: 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 or equivalent Master's Degree
- di aver conseguito, o che conseguirà entro il 31 ottobre 2017, la laurea magistrale (Master's Degree) in corsi di studio erogati interamente in lingua inglese; that he/she has obtained or will obtain by 31 October 2017, a second cycle degree (Master's degree) taught entirely in English.
- □ di aver superato il test di posizionamento del livello di conoscenza della lingua inglese B2 organizzato dall'Ateneo per l'accesso al XXXII ciclo di dottorato, ovvero di aver conseguito, alla data del bando, un attestato di conoscenza della lingua inglese di livello B2 rilasciato dall'Ateneo (Servizio Linguistico dell'Ateneo di Milano-SLAM); that he/she has passed the test of level B2 English language proficiency organized by the University for access to 32nd cycle doctoral programmes or that he/she was awarded, by the date of publication of this call, a certificate of level B2 proficiency in English issued by the University of Milan (SLAM- Linguistic Service of University of Milan).

Luogo/Data - Place/Date

Firma/Signature