

#### Public Competition for Admission to Doctoral Research Programmes at the University of Milan a.y. 2018/2019.

PUBLIC COMPETITION FOR ADMISSION TO DOCTORAL RESEARCH PROGRAMMES AT THE UNIVERSITY OF MILAN - a.Y. 2018/2019
Art. 1 - Activation of Doctoral Programmes 4
Art. 2 - Admission criteria
Art. 3 - Application for admission
Art. 4 - Disabled Applicants
Art. 5 - Admission exams
Art. 6 - Admission to the programmes
Art. 7 - Enrolment
Art. 8 - Scholarships12
Art. 9 - Obligations of Doctoral Students
Art. 10 - Awarding of Qualification13
Art. 11 - Processing of personal data13
Art. 12 - Relevant regulations
Art. 13 - Person in charge of the procedure and contacts
Doctoral Programme in Agriculture, environment and bioenergy
Doctoral Programme in Molecular and cellular biology17
Doctoral Programme in Chemistry21
Doctoral Programme in Industrial chemistry25
Doctoral Programme in Comparative, private and civil procedural law
Doctoral Programme in Public, international and European Union law
Doctoral Programme in Philosophy and human sciences
Doctoral Programme in Physics, astrophysics and applied physics
Doctoral Programme in Computer science
Doctoral Programme in Experimental medicine41
Doctoral Programme in Translational medicine43
Doctoral Programme in Environmental sciences45
Doctoral Programme in Literature, arts and environmental heritage
Doctoral Programme in Nutritional sciences52



Doctoral Programme in Earth sciences54
Doctoral Programme in Pharmaceutical sciences58
Doctoral Programme in Pharmacological biomolecular sciences, experimental and clinical61
Doctoral Programme in Legal studies "Cesare Beccaria"
Doctoral Programme in Mathematical sciences
Doctoral Programme in Food systems
Doctoral Programme in Public Health Sciences
Doctoral Programme in Veterinary and animal science72
Doctoral Programme in Economic sociology and labour studies
Doctoral Programme in History, culture, social and institutional theories
Doctoral Programme in Linguistic, literary and intercultural studies in European and extra- European perspectives
Doctoral Programme in Studies on Organized Crime
Annex A
Form 1
Form 2 (IT)
Form 2 (Eng)
Form 3



#### FUFP/2

# PUBLIC COMPETITION FOR ADMISSION TO DOCTORAL RESEARCH PROGRAMMES AT THE UNIVERSITY OF MILAN - A.Y. 2018/2019.

#### THE RECTOR

- having regard to Italian Ministerial Decree No. 270, dated 22 October 2004, entitled "Amendments to Regulation No. 509 containing rules governing the educational autonomy of Universities, passed by a Decree of the Ministry for Universities and Scientific and Technological Research on 3 November 1999";
- having regard to Article 4 of Italian Law No. 210, dated 3 July 1998, as amended by art. 19, paragraph 1, of Italian Law No. 240 dated 30 December 2010;
- having regard to Italian Regional Law No. 33, dated 13 December 2004, entitled "Rules governing Regional measures to ensure the right to study at university", which makes provisions for services in favour of students enrolled in doctoral programmes;
- having regard to Italian Ministerial Decree No. 45 dated 8 February 2013, "Regulation containing the accreditation methods of the locations and doctoral programmes and the criteria for the institution of doctoral programmes by accredited bodies";
- having regard to the 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 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 2018/2019 academic year the University intends to activate a new cycle of doctoral programmes;
- having regard to the notes of MIUR protocol no. 3419 of 5 February 2018;
- having regard to the decisions of the Academic Senate in the session of 13 April 2018 and of the Board in the session of 11 April 2018, concerning activation of the 34<sup>th</sup> doctoral cycle;
- having regard to Rectoral Decree 1907/2018 of 16 May 2018, which withdrew the call for public competition for admission to doctoral programmes at the University of Milan academic year 2018/2019 (34<sup>th</sup> cycle), issued through rectoral decree on 11 May 2018,



register no. 1859/2018, due to changes to University Regulations concerning doctoral programmes, pursuant to the decision of the Academic Senate on 15 May 2018

#### HEREBY DECREES

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

The following doctoral programmes are activated at the University of Milan for academic year 2018/2019 (34<sup>th</sup> cycle):

- Agricoltura, ambiente e bioenergia Agriculture, environment and bioenergy
- Biologia molecolare e cellulare Molecular and cellular biology
- <u>Chimica Chemistry</u>
- <u>Chimica industriale Industrial chemistry</u>
- <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
- Filosofia e scienze dell'uomo Philosophy and human sciences
- Fisica, astrofisica e fisica applicata Physics, astrophysics and applied physics
- Informatica Computer science
- Medicina sperimentale Experimental medicine
- Medicina traslazionale Translational medicine
- <u>Scienze ambientali Environmental sciences</u>
- <u>Scienze del patrimonio letterario, artistico e ambientale Literature, arts and</u> <u>environmental heritage</u>
- <u>Scienze della nutrizione Nutritional sciences</u>
- <u>Scienze della terra Earth sciences</u>
- <u>Scienze farmaceutiche Pharmaceutical sciences</u>
- <u>Scienze farmacologiche biomolecolari, sperimentali e cliniche Pharmacological biomolecular sciences, experimental and clinical</u>
- <u>Scienze giuridiche "Cesare Beccaria" Legal studies "Cesare Beccaria"</u>
- <u>Scienze matematiche Mathematical sciences</u>
- <u>Scienze per i sistemi alimentari Food systems</u>
- <u>Scienze per la sanità pubblica Public health sciences</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,</u> <u>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, in line with the objectives of the programme, its research and educational focus, can be found. The criteria on which the selection of research topics is based are indicated in art. 21 of the University Regulations for doctoral study.

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

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

#### Art. 2 - Admission 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 Committee of each doctoral programme, in compliance with the regulations in force in Italy and in the country in which the academic qualification was issued, and the international treaties or agreements pertaining to the conferment of qualifications for the continuation of studies.

Those without a second cycle degree may also apply, but admission to the doctoral research programme is subject to completing the second cycle degree by 31 October 2018, on pain of exclusion from the programme.

#### Art. 3 - Application for admission

Applications must be submitted through the following procedure by no later than 2 pm on 14 June 2018:



- registering online on the University portal at the webpage Accesso rapido Servizi -Registrazione (https://www.unimi.it/registrazione/registra.keb). 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);
- 2. accessing (by means of access credentials) the SIFA online services at *Servizi online SIFA* LOGIN (http://www.unimi.it/apps/hpsifaprivata.xsl);
- submitting an admission application by following the links: 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.

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

- A. Diploma Supplement, issued by the University according to European Commission, Council of Europe and UNESCO/CEPES standards, or degree certificate in Italian or English from the University of provenance, indicating exams taken, corresponding grades and credits, 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. Copy of passport (foreign applicants only);
- E. Any publications;
- F. Any request for online interview (using Form 3 attached hereto);
- G. Annex A.

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

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

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

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

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

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

#### Art. 4 - 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: <u>http://www.unimi.it/cataloghi/segreterie/Istanza\_disabili.pdf</u>) 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 doctoral programmes is through a public selection procedure involving the evaluation of qualifications and tests for the comparative assessment of candidates. An Examining Committee set up and appointed in compliance with current regulations will carry out the procedure.

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 drafted using a standard model (Form 1 attached hereto), is only for selection purposes and does not limit the choice of doctoral thesis in the case of admission.

The CV and research project are assessed before the interview. The outcome of the assessment is available on the web page indicated in the table for each programme.

The CV is evaluated on the basis of the candidate's entire 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 Sifa services - *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 **27 June 2018** for programmes completing the selection procedures in the month of June and no later than **11 September 2018** for the other doctoral programmes.

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

Applicants are admitted to the programmes according to their position in the ranking list until the number of places available for each doctoral programme has been filled. Where applicants achieve the same score, preference will be given to the younger applicant, with the exception of the right of priority criterion for 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*), which will provide instructions and deadlines for enrolment.

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

To follow the programme, admitted candidates must show *CEFR* (*Common European Framework of Reference for Languages*) Level B2 proficiency in English or in another foreign language indicated in this call for applications. During enrolment (see art. 7), candidates must therefore submit a certificate of language skills that is recognised by the University.

The certificate must have been awarded no earlier than three years from the date of application (two years for TOEFL) and must attest to proficiency in 4 areas: *Listening, Reading, Writing* and *Speaking*:

The following certifications are accepted 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	C2
BEC Business English Certificates – Vantage – Higher	B2 C1
IELTS International English Language Testing System – 5.5-6.5 – 7.0-8.0 – 8.5-9.0	B2 C1 C2
<ul> <li>BULATS Business Language Testing Service</li> <li>Upper Intermediate 60-74</li> <li>Advanced 75-89</li> <li>Upper Advanced 90-100</li> </ul>	B2 C1 C2
ILEC International Legal English Certificate	B2
ICFE Cambridge International Certificate in Financial English	B2

#### PEARSON



PTE	(Pearson	Test of	Enalish)	Academic
1 1 1	(1 Cui 3011	1051 01	Lighting	Academic

PTE (Pearson Test of English) Academic	
– 59-75	B2
– 76-84	C1
- 85-90	C2
LCCI (London Chamber of Commerce and Industry Examinations Board)	
<ul> <li>EFB Level 3</li> </ul>	, B2
JETSET	DZ
	<b>D</b> 2
- Level 5	B2
- Level 6	C1
- Level 7	C2
EDEXEL - London Test in English	
– Level 3	B2
– Level 4	C1
– Level 5	C2
	02
ETS EDUCATIONAL TESTING SERVICE	
TOEFL Test of English as a Foreign Language	
Internet based test (iBT):	D.O.
– 72-94	B2
– 95-120	C1
ITP Assessment series:	
– 543	B2
- 627	C1
TOFIC Test of English for International Communication	
TOEIC Test of English for International Communication Min 785 (Listoping & Poading) + Min 210 (Speaking & Writing)	BJ
- Min. 785 (Listening & Reading) + Min. 310 (Speaking & Writing)	B2
<ul> <li>Min. 785 (Listening &amp; Reading) + Min. 310 (Speaking &amp; Writing)</li> <li>Min. 945 (Listening &amp; Reading) + Min. 360 (Speaking &amp; Writing)</li> </ul>	
<ul> <li>Min. 785 (Listening &amp; Reading) + Min. 310 (Speaking &amp; Writing)</li> <li>Min. 945 (Listening &amp; Reading) + Min. 360 (Speaking &amp; Writing)</li> <li>TRINITY COLLEGE LONDON</li> </ul>	
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<ul> <li>Min. 785 (Listening &amp; Reading) + Min. 310 (Speaking &amp; Writing)</li> <li>Min. 945 (Listening &amp; Reading) + Min. 360 (Speaking &amp; Writing)</li> <li>TRINITY COLLEGE LONDON</li> </ul>	
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<ul> <li>Min. 785 (Listening &amp; Reading) + Min. 310 (Speaking &amp; Writing)</li> <li>Min. 945 (Listening &amp; Reading) + Min. 360 (Speaking &amp; Writing)</li> <li>TRINITY COLLEGE LONDON</li> <li>ISE Integrated Skills Examinations in English         <ul> <li>ISE Integrated Skills Examinations in English</li> <li>ISE II</li> <li>ISE III</li> <li>ISE IV</li> </ul> </li> <li>BRITISH INSTITUTES EXAMINATIONS     <ul> <li>First Examination Master in English Language</li> <li>Vantage</li> </ul> </li> <li>English Diploma Operational         <ul> <li>Proficiency</li> </ul> </li> <li>Master in English Language             <ul> <li>Master y</li> <li>WEITERBILDUNG TEXTSYSTEME</li> </ul> </li> </ul>	C1 B2 C1 C2 B2 C1 C2
<ul> <li>Min. 785 (Listening &amp; Reading) + Min. 310 (Speaking &amp; Writing)</li> <li>Min. 945 (Listening &amp; Reading) + Min. 360 (Speaking &amp; Writing)</li> </ul> TRINITY COLLEGE LONDON ISE Integrated Skills Examinations in English <ul> <li>ISE Integrated Skills Examinations in English</li> <li>ISE III</li> <li>ISE III</li> <li>ISE IV</li> </ul> BRITISH INSTITUTES EXAMINATIONS First Examination Master in English Language <ul> <li>Vantage</li> </ul> English Diploma Operational <ul> <li>Proficiency</li> </ul> Master in English Language <ul> <li>Mastery</li> </ul> WEITERBILDUNG TEXTSYSTEME TELC (The European Language Certificates)	C1 B2 C1 C2 B2 C1 C2
<ul> <li>Min. 785 (Listening &amp; Reading) + Min. 310 (Speaking &amp; Writing)</li> <li>Min. 945 (Listening &amp; Reading) + Min. 360 (Speaking &amp; Writing)</li> <li>TRINITY COLLEGE LONDON</li> <li>ISE Integrated Skills Examinations in English         <ul> <li>ISE Integrated Skills Examinations in English</li> <li>ISE II</li> <li>ISE III</li> <li>ISE IV</li> </ul> </li> <li>BRITISH INSTITUTES EXAMINATIONS     <ul> <li>First Examination Master in English Language</li> <li>Vantage</li> </ul> </li> <li>English Diploma Operational         <ul> <li>Proficiency</li> <li>Master in English Language</li> <li>Mastery</li> </ul> </li> <li>WEITERBILDUNG TEXTSYSTEME     <ul> <li>TELC (The European Language Certificates)</li> </ul> </li> </ul>	C1 B2 C1 C2 B2 C1 C2



#### BRITISH CHAMBER OF COMMERCE FOR ITALY

IPEC (International Professional English Certificate) – Executive

B2

#### ESB - ENGLISH SPEAKING BOARD (INTERNATIONAL)

- ESOL International All Modes
  - Level 1
    - Level 2

B2 C1

The following candidates are not required to provide certification:

- those who have obtained, or will obtain by 31 October 2018, 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 2018, a second cycle degree (Master's Degree) taught entirely in English;
- those who have passed the test organised by the University (Servizio Linguistico d'Ateneo di Milano-SLAM) to ascertain level B2 language skills required for admission to 32nd cycle doctoral studies;
- who have been awarded, within the field of their study path, 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. 7 - Enrolment

Applicants admitted to doctoral programmes can enrol online from 20 September 2018 to 2pm on 26 September 2018 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/111216.htm</u>.

Doctoral applicants must pay a fee of €980 for accessing and attending doctoral programmes in academic year 2018/2019; this includes the regional study tax, accident insurance premium 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 €156.00 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 €156.00 covering the regional study tax, the accident insurance premium 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 the enrolment date:

- a) university qualification;
- b) Italian translation of the qualification, done by an official translator and certified in accordance with existing regulations;
- c) "Dichiarazione di valore in loco" (Statement of Validity) to be requested from the Italian diplomatic office in the country in which the qualification was awarded;
- d) Italian tax identification number (codice fiscale);
- e) 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 €16,350.00. The amount of the scholarship is exempt from IRPEF income tax in accordance with art. 4 of Italian Law no. 476 of 13 August 1984 but subject to social security contributions pursuant to article 2, paragraph 26 et seq., of Italian Law no. 335 of 8 August 1995 and subsequent amendments.

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

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

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

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



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

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

#### Art. 10 - Awarding of Qualification

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

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

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 legislation.

#### Art. 12 - Relevant regulations

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

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

Pursuant to Law no. 241 of 7 August 1990, the person in charge of the present competition is dott.ssa Monica Delù (Head of the Doctoral, Master's and International Students 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: Postlaurea/Dottorati di ricerca.

Milan, 16 May 2018

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 the areas of research on the University website at <a href="http://www.unimi.it/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

Places available

11

#### Scholarships

7 University of Milan

1 financed by the Department of Agricultural and Environmental Sciences - Production, Land, Agroenergy for the programme "Integrated Algae biorefinery: nutrient and carbon recycling from wastes"

1 financed by the Department of Agricultural and Environmental Sciences - Production, Land, Agroenergy for the programme "Multicriteria assessment for innovative solutions to nutrient recycling"

#### Doctoral programme coordinator

Prof. Daniele Bassi, full professor in scientific-disciplinary sector 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	Decalling of families Decisional	Due	and the second and be a second
	- Deadlines for the Doctoral	i Programme in Agriculture	, environment and bioenergy

CV and research project assessment outcome	Available from 5 September 2018 at <a href="http://sites.unimi.it/dottorato_aab/">http://sites.unimi.it/dottorato_aab/</a>
Examination schedule	Interview: starting 9am 6 September 2018 at Dipartimento di Scienze agrarie e ambientali - Produzione, Territorio, Agroenergia - via Celoria no.2 - 20133 Milan.
	The candidate can elect to complete the interview in Italian or 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://sites.unimi.it/dottorato_aab/</u> .
	This publication constitutes notification to the persons concerned.



#### Doctoral Programme in Molecular and cellular 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 http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

3 years

#### Places available

9

#### Scholarships

8 University of Milan

#### Doctoral programme coordinator

Prof. Marco Muzi Falconi, full professor in scientific-disciplinary sector BIO/11 <u>marco.muzifalconi@unimi.it</u>

#### 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-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



#### **Reference letters**

The Teaching Committee requests that two Reference letters, drawn up using Form 2 attached hereto, be emailed to <u>margherita.russo@unimi.it</u>

#### Doctoral programme selection phases

Table 2 - Deadlines for the doctoral programme in Molecular and cellular biology

CV and research project assessment outcome	Available from 9 July 2018 at <u>http://eng.dbs.unimi.it/ecm/home/teaching/doctoral-</u> <u>schools/molecular-and-cellular-biology</u>
Examination schedule	Interview: starting 9.30 am on 4 September 2018 at <i>Dipartimento di Bioscienze</i> - Aula ex lauree, 2nd floor, Torre A - via Celoria no. 26, 20133 Milan.
	The interview will be held in English. The research project must be illustrated using a PowerPoint presentation. Each candidate will have 10 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://eng.dbs.unimi.it/ecm/home/teaching/doctoral-schools/molecular-and-cellular-biology</u>
	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 http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

3 years

#### Places available

10

#### Scholarships

9 University of Milan

1 financed by the Italian National Research Council - Institute for Molecular Science and Technology (CNR - ISTM) for the research programme "*Sviluppo e applicazioni di metodi teorici per lo studio della densità elettronica e di spin elettronico*" ("Development and Application of Theoretical Methods for Studying Electron Density and Spin")

#### Doctoral programme coordinator

Prof. Emanuela Licandro, full professor in scientific-disciplinary sector CHIM/06 <u>emanuela.licandro@unimi.it</u>

#### 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 19 June 2018 at <u>http://www.chimica.unimi.it/ecm/home/dottorati/bandi</u>
Examination schedule	Interview: starting 9.30am on 25 June 2018 at <i>Dipartimento di Chimica</i> (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/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

#### Places available

6

#### Scholarships

5 University of Milan



#### Doctoral programme coordinator

Prof. Maddalena Pizzotti, full professor in scientific-disciplinary sector CHIM/03 <u>maddalena.pizzotti@unimi.it</u>

#### 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 21 June 2018 at <u>http://www.chimica.unimi.it/ecm/home/dottorati</u>
Examination schedule	Interview: starting 9.30am on 25 June 2018 at <i>Dipartimento di Chimica</i> (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 <u>http://www.chimica.unimi.it/ecm/home/dottorati</u> .
	This publication constitutes notification to the persons concerned.



#### Doctoral Programme in Comparative, private and civil procedural 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/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

Places available

8

Scholarships

6 University of Milan

#### Doctoral programme coordinator

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



#### Curricula

- 1. Private Law
- 2. Comparative Law
- 3. Commercial and industrial Law
- 4. Labour 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 and civil procedural law

CV and research project assessment outcome	Available starting 18 July 2018 at <u>https://dcppciphd.ariel.ctu.unimi.it/v5/home/PreviewArea.aspx</u> and <u>http://www.dpsd.unimi.it/ecm/home</u>
Examination schedule	Interview: 9am on 5 September 2018 at the University of Milan (M202 Hall) - via Santa Sofia no.9/1 - 20122 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 websites <u>https://dcppciphd.ariel.ctu.unimi.it/v5/home/PreviewArea.aspx</u> and <u>http://www.dpsd.unimi.it/ecm/home</u> .
	This publication constitutes notification to the persons concerned.



#### Doctoral Programme in Public, international and European Union 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/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

#### Places available

8

#### Scholarships

7 University of Milan



#### Doctoral programme coordinator

Prof. Diana Urania Galetta, full professor in scientific-disciplinary sector IUS/10 <u>diana.galetta@unimi.it</u>

#### 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 Public, international and European Union law

CV and research project assessment outcome	Available from 25 June 2018 at <u>http://www.dirittopubblico.unimi.it/ecm/home</u>
Examination schedule	Interview: starting 9am on 26 June 2018 at 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. Interviewers will verify that international candidates have minimum proficiency in Italian.
	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.dirittopubblico.unimi.it/ecm/home</u> .
	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 multidisciplinary skills of the teaching committee will provide students with extensive knowledge in specific sectors of basic and applied research. It promotes innovative and cutting-edge research in areas requiring the ability to master theories, methods and techniques from various fields.

In particular, the programme aims to provide students with a solid philosophical and scientific grounding in one of the following research areas:

- i. History of philosophy
- ii. Logic
- iii. Metaphysics
- iv. Contemporary philosophy
- v. Language Theories
- vi. Philosophy of mind
- vii. Ethics and Politics
- viii. Aesthetics and history of aesthetics
  - ix. Psychology and cognitive neuroscience
  - x. Economic philosophy
  - xi. Anthropology
- xii. Sociology and social research methods

#### 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 http://www.unimi.it/ricerca/dottorati/111212.htm

Duration

3 years

Places available

8

#### Scholarships

6 University of Milan

2 scholarships for completing the Philosophy Department's project financed by MIUR in the framework of *Bando Dipartimenti di Eccellenza* 2018-2022, as laid out in Law no. 232 of 11 December 2016

#### Doctoral programme coordinator

Prof. Marcello D'Agostino, full professor in scientific-disciplinary sector M-Fil/02 <u>marcello.dagostino@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 the doctoral programme coordinator.



#### Doctoral programme selection phases

#### Table 7 - Deadlines for the Doctoral Programme in Philosophy and human sciences

CV and research project assessment outcome	Available from 21 June 2018 at <u>http://www.dipafilo.unimi.it/ecm/home/scuola-di-dottorato</u> and <u>http://eng.dipafilo.unimi.it/ecm/home/doctoral-school</u>
Examination schedule	Interview: from 9.30am on 25 June 2018 at Dipartimento di Filosofia (Paci Hall) - via Festa del Perdono n. 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 focus of this doctoral programme is on physics in advanced sectors of pure and applied research. Research covers all areas of modern physics, as indicated in the five curricula that 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 basic interactions)

02/B (Material physics)

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

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

09/E (Electric and electronic engineering and measurements)

#### **Research topics**

See <a href="http://www.unimi.it/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

#### Places available

19



### Scholarships

11 University of Milan

2 financed by the "Aldo Pontremoli" Physics Department within the framework of the "Machine learning" and "QCD resummation" programmes.

3 financed by the National Institute for Nuclear Physics (INFN)

#### Doctoral programme coordinator

Prof. Francesco Ragusa, full professor in scientific-disciplinary sector FIS/01 <u>francesco.ragusa@unimi.it</u>

#### Curricula

- 1. Astrophysics
- 2. Material physics
- 3. Nuclear and particle physics
- 4. Basic 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 e-mail <a href="mailto:phd@fisica.unimi.it">phd@fisica.unimi.it</a>

### Doctoral programme selection phases

Table 8 - Deadlines for the Doctoral Programme in Physics, astrophysics and applied physics

CV and research project assessment outcome	Available from 19 June 2018 at <u>http://phd.fisica.unimi.it/admission/year2018/</u>
Examination schedule	Interview: starting 9am on 21 June 2018 at <i>Dipartimento di Fisica</i> (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 <u>http://phd.fisica.unimi.it/admission/year2018/</u> . 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/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

Places available

8

#### Scholarships

#### 8 University of Milan



### Doctoral programme coordinator

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

#### Admission criteria

All classes of second cycle degrees

#### **Reference letters**

The Teaching committee requires that from 1 to 3 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 9 - Deadlines for the Doctoral Programme in Computer science

CV and research project assessment outcome	Available from 29 June 2018 on the website <u>http://dottorato.di.unimi.it/</u>
Examination schedule	<i>Interview:</i> starting at 9.30am on 3 September 2018 at <i>Dipartimento di Informatica</i> (3rd floor meeting room) - via Celoria no. 18 - 20133 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 <u>http://dottorato.di.unimi.it/</u> .
	This publication constitutes notification to the persons concerned.



## Doctoral Programme in Experimental medicine

### Learning objectives

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

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

The doctoral programme is conducted entirely in English.

### Academic disciplines

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

05/F (Applied Biology)

05/G (Experimental and Clinical Pharmacological science)

06/A (Pathology and Laboratory Diagnostics)

06/D (Specialised Clinical Medicine)

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

### **Research topics**

### See http://www.unimi.it/ricerca/dottorati/111212.htm

### Duration

#### 3 years



### Places available

11

### Scholarships

9 University of Milan

#### Doctoral programme coordinator

Prof. Massimo Locati, full professor in scientific-disciplinary sector MED/04 <u>massimo.locati@unimi.it</u>

#### Admission criteria

All classes of second cycle degrees

#### Doctoral programme selection phases

#### Table 10 - Deadlines for the Doctoral Programme in Experimental medicine

CV and research project assessment outcome	Available starting 16 July 2018 at <u>http://www.biometra.unimi.it/ecm/home/didattica/dottorati/medicina-</u> <u>sperimentale-e-biotecnologie-mediche</u> and <u>http://eng.biometra.unimi.it/ecm/home/teaching/doctoral-</u> <u>schools/experimental-medicine-and-medical-biotechnologies</u>
Examination schedule	Interview: 9am, 7 September 2018 at the University of Milan of Milan - Polo LITA (Aula D) - 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 <u>http://www.biometra.unimi.it/ecm/home/didattica/dottorati/medicina-</u> <u>sperimentale-e-biotecnologie-mediche</u> and <u>http://eng.biometra.unimi.it/ecm/home/teaching/doctoral-</u> <u>schools/experimental-medicine-and-medical-biotechnologies</u> . This publication constitutes notification to the persons concerned.



## Doctoral Programme in Translational medicine

### Learning objectives

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

Aims:

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

The doctoral programme is conducted entirely in English.

#### Academic disciplines

05/D (Physiology)

- 05/E (Experimental and Clinical Biochemistry and Molecular Biology)
- 05/F (Applied biology)
- 05/H (Human anatomy and histology)
- 06/A (Pathology and Laboratory Diagnostics)
- 06/B (General Clinical Medicine)
- 06/D (Specialised Clinical Medicine)
- 06/L (Clinical anaesthesiology)
- 06/N (Healthcare, applied medical technology, physical exercise and sports science professions)



#### **Research topics**

See http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

3 years

#### Places available

20

#### Scholarships

15 University of Milan

#### Doctoral programme coordinator

Prof. Sandro Sonnino, full professor in scientific-disciplinary sector BIO/10 <u>sandro.sonnino@unimi.it</u>

#### Admission criteria

All classes of second cycle degrees

#### Doctoral programme selection phases

#### Table 11 - Deadlines for the Doctoral Programme in Translational medicine

CV and research project assessment outcome	Available from 26 July 2018 on the website <u>http://www.biometra.unimi.it/ecm/home</u>
Examination schedule	Interview: 9am, 4 September 2018 at the University of Milan - Polo LITA (education sector) - via Fratelli Cervi no. 93 - 20090 Segrate (MI).
	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 <u>http://www.biometra.unimi.it/ecm/home</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 teaching committee have particular expertise, 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)

### **Research topics**

#### See http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

3 years

Places available

10

#### Scholarships

7 University of Milan

1 financed by the Department of Agricultural and Environmental Sciences - Production, Landscape, Agroenergy within the framework of the programme "Use of precision farming tools with organic and organo-mineral N,P fertilizers towards nutrient recycling and increased organic C stocking in soil"

1 financed by the Department of Agricultural and Environmental Sciences - Production, Landscape, Agroenergy within the framework of the programme "Production and use in agriculture of biobased N and P fertilizers"

#### Doctoral programme coordinator

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

#### Admission criteria

All classes of second cycle degrees



#### Doctoral programme selection phases

Table 12 - Deadlines for the Doctoral Programme in Environmental sciences

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CV and research project assessment outcome	Available at 6pm on 4 September 2018 at <a href="http://users2.unimi.it/environ_sci/">http://users2.unimi.it/environ_sci/</a>
Examination schedule	Interview: 9am on 6 September 2018 at <i>Dipartimento di Bioscienze</i> (BS lecture hall) - via Celoria no.26 - 20133 Milan.
	The interview will be held in English. The research project must be illustrated using a PowerPoint presentation. Each candidate will have 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 <u>http://users2.unimi.it/environ_sci/</u> .
	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 http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

3 years



### Places available

7

### Scholarships

7 University of Milan

#### Doctoral programme coordinator

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

#### 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 13 - Deadlines for the Doctoral Programme in Literature, arts and environmental heritage

CV and research project assessment outcome	Available from 7 September 2018 at <a href="http://www.studilefili.unimi.it/ecm/home/didattica/dottorati/">http://www.studilefili.unimi.it/ecm/home/didattica/dottorati/</a>
Examination schedule	Interview: starting at 10am on 10 September 2018 at Dipartimento di Studi letterari, filologici e linguistici - sezione Modernistica (meeting room) - 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
	http://www.studilefili.unimi.it/ecm/home/didattica/dottorati/. This publication constitutes notification to the persons concerned.



### **Doctoral Programme in Nutritional 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 <a href="http://www.unimi.it/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

#### Places available

6



#### Scholarships

6 University of Milan

#### Doctoral programme coordinator

Prof. Luciano Pinotti, full professor in scientific-disciplinary sector AGR/18 <u>luciano.pinotti@unimi.it</u>

#### Curricula

- 1. Nutrition and lifestyles in health and illness 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 14 - Deadlines for the Doctoral Programme in Nutritional sciences

CV and research project assessment outcome	Available from 23 June 2018 on the website <u>http://sdsn.ariel.ctu.unimi.it/v5/home/PreviewArea.aspx?name=</u> <u>Bandi</u>
Examination schedule	Interview: 9am, 27 June 2018 at <i>Dipartimento di Scienze biomediche e cliniche "L. Sacco"</i> - Polo Vialba (room seating 40) - via G.B. Grassi no.74 - 20157 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://sdsn.ariel.ctu.unimi.it/v5/home/PreviewArea.aspx?name=Bandi</u> .
	This publication constitutes notification to the persons concerned.



### **Doctoral Programme in Earth sciences**

#### Learning objectives

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

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

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

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

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

The GEORESOURCES curriculum aims to develop innovative skills to address the global challenges deriving from the growing need for Georesources. Research activities will focus on a wide



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

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

#### Academic disciplines

04/A (Geosciences)

#### **Research topics**

See http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

3 years

#### Places available

8

#### Scholarships

5 University of Milan

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

#### Doctoral programme coordinator

Prof. Elisabetta Erba, full professor in scientific-disciplinary sector GEO/01 <u>elisabetta.erba@unimi.it</u>

#### Curricula

- 1. Earth System: Processes and Modelling
- 2. Georesources



#### 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 15 - Deadlines for the Doctoral Programme in Earth sciences

CV and research project assessment outcome	Available from 25 June 2018 on the website <u>http://users.unimi.it/sdtab/sdt.html</u>
Examination schedule	Interview: 9.30am 27 June 2018 at <i>Dipartimento di Scienze della Terra "A. Desio"</i> (3rd floor meeting room) - Via Mangiagalli no.34 - 20133 Milan.
	The interview is 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 <a href="http://users.unimi.it/sdtab/sdt.html">http://users.unimi.it/sdtab/sdt.html</a> .
	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 http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

#### 3 years

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#### Places available

7

### Scholarships

6 University of Milan

#### Doctoral programme coordinator

Prof. Giancarlo Aldini, full professor in scientific-disciplinary 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 16 - Deadlines for the Doctoral Programme in Pharmaceutical sciences

CV and research project assessment outcome	Available from 2 July 2018 on the website <u>http://eng.disfarm.unimi.it/ecm/home/teaching/doctoral-</u> <u>schools</u>
Examination schedule	Interview: starting 10.30am on 3 September 2018 at <i>Dipartimento di Scienze farmaceutiche</i> (first floor meeting room) - 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-schools</u> . This publication constitutes notification to the persons concerned.



# Doctoral Programme in Pharmacological biomolecular sciences, experimental and clinical

#### Learning objectives

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

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

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

The programme is conducted entirely in English.

#### Academic disciplines

05/D (Physiology)

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

05/F (Applied biology)

- 05/G (Experimental and Clinical Pharmacological Sciences)
- 05/H (Human Anatomy and Histology)



05/I (Genetics and microbiology)

06/A (Pathology and Laboratory Diagnostics)

06/D (Specialised Clinical Medicine)

### **Research topics**

See http://www.unimi.it/ricerca/dottorati/111212.htm

Duration

3 years

Places available

9

Scholarships

8 University of Milan

#### Doctoral programme coordinator

Prof. Alberico Catapano, full professor in scientific-disciplinary sector BIO/14 <u>alberico.catapano@unimi.it</u>

### 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-41 Medicine and Surgery,
- LM-42 Veterinary medicine,
- LM-55 Cognitive science,
- LM-60 Natural sciences,

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LM-61 Human nutrition,

LM-69 Agricultural Science and Technology,

- LM-70 Food Science and Technology,
- LM-75 Environmental and Land Sciences and Technology,

LM-82 Statistics,

LM/SNT1 Nursing and Midwifery,

LM/SNT2 Rehabilitation Professions,

LM/SNT3 Health Professions for Technical Assistance,

LM/SNT4 Preventive Care Professions.

#### **Reference letters**

The Teaching Committee requires that one reference letter, 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 17 - Deadlines for the doctoral programme in Pharmacological biomolecular sciences, experimental and clinical

Available from 7 September 2018 at <a href="http://users2.unimi.it/scuolascifarm/">http://users2.unimi.it/scuolascifarm/</a>
Interview: 8.30 am on 10 September 2018 at <i>Dipartimento di</i> Scienze farmacologiche e biomolecolari - via Balzaretti no.9 - 20133 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 <u>http://users2.unimi.it/scuolascifarm/</u> . This publication constitutes notification to the persons concerned.



## Doctoral Programme in Legal studies "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 <a href="http://www.unimi.it/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

### Duration

3 years

#### Places available

7

### Scholarships

6 University of Milan

### Doctoral programme coordinator

Prof. Claudio Luzzati, full professor in scientific-disciplinary 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.

#### Doctoral programme selection phases

#### Table 18 - Deadlines for the Doctoral Programme in Legal studies "Cesare Beccaria"

CV and research project assessment outcome	Available starting 19 June 2018 on the website <u>http://sgcbphd.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx?na</u> <u>me=how</u>
Examination schedule	Interview: 9.30am on 20 June 2018 at <i>Dipartimento di Scienze giuridiche "Cesare Beccaria"</i> - 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://sgcbphd.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx?na</u> <u>me=how</u> . 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 Teaching committee 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 http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

3 years

Places available

9

Scholarships

7 University of Milan

#### Doctoral programme coordinator

Prof. Vieri Mastropietro, full professor in scientific-disciplinary sector MAT/07 <u>vieri.mastropietro@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 <a href="mailto:segrdott.mat@unimi.it">segrdott.mat@unimi.it</a>

#### Doctoral programme selection phases

Table 19 - Deadlines for the Doctoral Programme in Mathematical sciences

CV and research project assessment outcome	Available from 4 September 2018 on the website <u>http://www.mat.unimi.it/dottorati/</u>
Examination schedule	Interview: starting 9.30am on 6 September 2018 at <i>Dipartimento di Matematica "F. Enriques"</i> (sala di rappresentanza)- via Saldini no. 50 - 20133 Milano.
	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 <a href="http://www.mat.unimi.it/dottorati/">http://www.mat.unimi.it/dottorati/</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/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

#### 3 years

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### Places available

8

### Scholarships

6 University of Milan

#### Doctoral programme coordinator

Prof. Francesco Bonomi, full professor in scientific-disciplinary sector BIO/10 <u>francesco.bonomi@unimi.it</u>

#### 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 20 - Deadlines for the Doctoral Programme in Food systems

CV and research project assessment outcome	Available from 21 June 2018 on the website <u>http://sites.unimi.it/foodsystems/</u>
Examination schedule	Interview: 9am on 22 June 2018 at <i>Dipartimento di Scienze per gli alimenti, la nutrizione e l'ambiente</i> (fifth floor meeting room) - via Mangiagalli no. 25 - 20133 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 <u>http://sites.unimi.it/foodsystems/</u> .
	This publication constitutes notification to the persons concerned.



### Doctoral Programme in Public Health Sciences

#### Learning objectives

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

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

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

#### Academic disciplines

06/E (Specialised Clinical Surgery) 06/G (Clinical Paediatrics) 06/H (Clinical Gynaecology) 06/M (Public Healthcare) 07/H (Veterinary Medicine) 13/B (Business Economics) 13/D (Statistics and mathematical methods for decision-making) Research topics

See <a href="http://www.unimi.it/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

#### Places available

5



#### Scholarships

4 University of Milan

### Doctoral programme coordinator

Prof. Carlo La Vecchia, full professor in scientific-disciplinary sector MED/01 <u>carlo.lavecchia@unimi.it</u>

#### Admission criteria

All classes of second cycle degrees

#### Doctoral programme selection phases

#### Table 21 - Deadlines for the Doctoral Programme in Public Health Sciences

CV and research project assessment outcome	Available from 19 June 2018 on the website <u>http://www.discco.unimi.it/ecm/home</u>
Examination schedule	Interview: starting 9.30am on 20 June 2018 at <i>Dipartimento di Scienze cliniche e di comunità</i> (Aula Magna) - via della Commenda no. 9/12 - 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://www.discco.unimi.it/ecm/home</u> . This publication constitutes notification to the persons concerned.



### Doctoral Programme in Veterinary and animal science

#### Learning objectives

The learning objectives of the doctoral programme are:

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

The programme is entirely in English.

#### 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/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years



# Places available

13

# Scholarships

12 University of Milan

### Doctoral programme coordinator

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

#### Admission criteria

All classes of second cycle degrees

#### **Reference letters**

The Teaching committee requests two Reference letters drawn up using Form 2 attached hereto and emailed to <a href="mailto:phdcourse.vas@unimi.it">phdcourse.vas@unimi.it</a>

#### Doctoral programme selection phases

Table 22 - Deadlines for the doctoral programme in Veterinary and animal science

CV and research project assessment outcome	Available from 3 August 2018 at <u>http://users2.unimi.it/vas/</u>
Examination schedule	Interview: starting at 9.30am on 3 September 2018 at the former <i>Facoltà di Medicina veterinaria</i> - via Celoria no.10 - 20133 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 <u>http://users2.unimi.it/vas/</u> .
	This publication constitutes notification to the persons concerned.



# Doctoral Programme in Economic sociology and labour studies

# Learning objectives

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

The doctoral programme is entirely in English.

### Academic disciplines

11/E (Psychology)
12/B (Commercial and labour law)
13/B (Business economics)
13/D (Statistics and mathematical methods for decision-making)
14/C (Sociology)
14/D (Applied sociology)

# **Research topics**

# See http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

3 years

# Places available

7

# Scholarships

3 University of Milan

- 1 University of Milan named after Giulio Regeni
- 2 funded by Fondazione Collegio Carlo Alberto



### Doctoral programme coordinator

Prof. Gabriele Ballarino, full professor in scientific-disciplinary 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 23 - Deadlines for the Doctoral Programme in Economic sociology and labour studies

CV and research project assessment outcome	Available from 19 June 2018 on the website: http://www.nasp.eu/training/phd-programmes/esls.html	
Examination schedule	Interview: starting at 9am on 25 June 2018 at <i>Dipartimento di</i> <i>Scienze sociali e politiche</i> - via Conservatorio no. 7 - 20122 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 at <u>http://www.nasp.eu/training/phd-programmes/esls.html</u> . This publication constitutes notification to the persons concerned.	



# Doctoral Programme in History, culture, 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 courses 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) 10/D (Classical Antiquity) 11/A (History) 13/C (Economic History) 14/B (Political History)

#### **Research topics**

See <a href="http://www.unimi.it/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

#### Places available

5



### Scholarships

5 University of Milan

# Doctoral programme coordinator

Prof. Daniela Saresella, full professor in scientific-disciplinary sector M-STO/04 daniela.saresella@unimi.it

#### Admission criteria

All classes of second cycle degrees

#### Doctoral programme selection phases

Table 24 - Deadlines for the Doctoral Programme in History, culture, social and institutional theories

CV and research project assessment outcome	Available 22 June 2018 at <u>http://www.studistorici.unimi.it/ecm/home</u>
Examination schedule	Interview: at 9am on 26 June 2018 at <i>Dipartimento di Studi storici</i> - (Library - Aula Edizioni pregiate) - 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.studistorici.unimi.it/ecm/home</u> .
	This publication constitutes notification to the persons concerned.



# Doctoral Programme in Linguistic, literary and intercultural studies in 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 http://www.unimi.it/ricerca/dottorati/111212.htm

#### Duration

#### 3 years



# Places available

7

# Scholarships

7 University of Milan

### Doctoral programme coordinator

Prof. Maria Vittoria Calvi, full professor in scientific-disciplinary sector L-LIN/07 maria.calvi@unimi.it

#### 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 25 - Deadlines for the Doctoral Programme in Linguistic, literary and intercultural studies inEuropean and extra-European perspectives

ī.

CV and research project assessment outcome	Available from 19 June 2018 on the website at <u>http://www.lingue.unimi.it</u>
Examination schedule	Interview: at 10am on 21 June 2018 at <i>Dipartimento di Scienze della mediazione linguistica e di studi interculturali</i> - Piazza I. Montanelli no. 1 - 20099 Sesto San Giovanni (MI).
	The interview will be in Italian or English, as elected by the candidate.
	Candidates must take a preliminary oral exam that aims to assess language proficiency in the language of specialisation indicated in the research project; it will take place on 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 <a href="http://www.lingue.unimi.it">http://www.lingue.unimi.it</a> .
	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/ricerca/dottorati/111212.htm">http://www.unimi.it/ricerca/dottorati/111212.htm</a>

#### Duration

3 years

#### Places available

5



### Scholarships

4 University of Milan

# Doctoral programme coordinator

Prof. Fernando dalla Chiesa, full professor in scientific-disciplinary sector SPS/09 <u>fernando.dallachiesa@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 <a href="mailto:cross@unimi.it">cross@unimi.it</a>

#### Doctoral programme selection phases

CV and research project assessment outcome	Available from 19 June 2018 on the website at: http://www.cross.unimi.it/
Examination schedule	Interview: starting 2.30pm on 20 June 2018 at Osservatorio sulla criminalità organizzata dell'Università degli Studi di Milan -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.

#### Table 26- Deadlines for the Doctoral Programme in Studies on Organized Crime

#### Annex A

#### DICHIARAZIONE SOSTITUTIVA DI ATTO NOTORIO

Self-drafted affidavit (art. 47 del DPR n° 445/2000) (art. 47 Presidential Decree no. 445/2000)

II sottoscritto/the undersigned	
cognome/surname	nome/name
nato a/born in	il/on
dichiarazioni non veritiere e falsità in	nd submitting false documents are crimes punishable by law
	o la propria personale responsabilità under his/her own responsibility
che le pubblicazioni/ i titoli sotto eler all'originale:	ncati, prodotti in copia tramite upload, sono conformi
that the publications and the qualifica originals:	ations listed below, produced as copies, comply with the

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 / PROJECT**

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

1) Titolo del progetto / Project title

2) Sommario / Abstract

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

4) Descrizione del progetto / project description

5) Bibliografia / References

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

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

# Form 2 (IT)

# LETTERA DI REFERENZA

Cognome e nome del	Corso di	
candidato	dottorato	

# Da compilare in tutte le parti

Cognomeenome 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%	Top 25%	Top 10%	Top 5%	Top 2%

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

Inabilitato a rispondere	Sotto la media	Media	Buona	Ottima	Eccezionale

Commento giudizio personale su	ıl candidato		

# Form 2 (Eng)

# **REFEREE FORM**

Applicant's Name	PhD	

#### 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 in comparable fields and indicate the comparison group used.

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

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

Unable to evaluate	Below Average	Average	Good	Outstanding	Exceptional

Give your comments here Yourpersonal 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 IN			
Address:		No.	Zip Code:
Town/City:	Coun	ntry:	
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.
 Signature

<sup>&</sup>lt;sup>1</sup> To be completed only if the applicant is a foreign national not resident in Italy who wishes to sit the entrance exam in his/her home country.

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