Public Competition for Admission to the PhD Courses of the University of Milan Academic Year 2013/2014.

FUFP/2

THE RECTOR

- considering Ministerial Decree No. 270, dated 22nd October 2004, entitled "Amendments to the Regulation No. 509 containing rules governing the didactic autonomy of Universities, passed by a Decree of the Minister for University and Scientific and Technological Research on 3rd November 1999";
- considering Article 4 of Italian Law No. 210, dated 3rd July 1998, as amended by art. 19, paragraph 1, of Law 30 No. 240 dated 30th December;
- considering Ministerial Decree No. 45 dated 8th February 2013, "Regulation containing the accreditation methods of the PdD courses and locations and the criteria for the foundation of PhD courses on behalf of accredited bodies";
- considering Regional Law No. 33, dated 13th December, 2004, entitled "Rules governing activities of the Region for the right to study at university," which makes provisions for services to be furnished to facilitate students enrolled in PhD programmes;
- considering the Charter of the University of Milan, issued by rectoral decree dated 15th March 2012;
- considering the assessments made by the Evaluation Board of the University of Milan;
- considering the resolutions approved by the Academic Senate and by the Administrative Council during their respective meetings of 13th and 24th September 2013

HEREBY DECREES

Art. 1 Activation of PhD Courses

The following PhD Courses have been activated at the University of Milan for A.Y. 2013/2014 (29th cycle):

- Agriculture, Environment and Bioenergy
- Molecular and Cellular Biology
- Chemistry
- Industrial Chemistry
- Epidemiology, Environment and Public Health
- Philosophy and Human Sciences
- Physics, Astrophysics and Applied Physics
- Computer Science
- Clinical and Experimental Medicine
- Molecular and Translational Medicine
- Experimental Medicine and Medical Biotechnologies
- Integrative Biomedical Research
- Environmental Sciences
- Biochemical Sciences
- Literature, Arts and Environmental Heritage
- Nutritional Sciences
- Earth Sciences

- Pharmaceutical Sciences
- Experimental and Clinical Pharmacological Sciences
- National and International Legal Studies
- Mathematical Sciences
- Oral Sciences
- Food Systems
- Veterinary and Animal Science
- History, Culture, Social and Institutional Theories
- Linguistic, Literary and Intercultural Studies in European and Extra-European Perspectives

Therefore, a public competition, to be appraised by qualifications and exams, has been announced by the University of Milan for admission to the above-mentioned doctorates; the tables annexed to this decree, which are an integral part of this document, contain a brief description of the courses. The tables also illustrate the criteria on which the selection procedures are based.

Scholarships may be increased by external funding made available before the deadline set for this call for applications.

Art. 2 Admission Criteria

In order to apply for a place on the above-mentioned PhD programs, students must possess a "magistrale" degree (second-level degree), an equivalent qualification, or an equivalent degree (Master's Degree) from a foreign University.

The suitability of the foreign academic qualifications in terms of content will be appraised by the Faculty Committee specially constituted for admission to each PhD course in compliance with the regulation in force in Italy and in the country where the academic title had been issued, and the international treaties and agreements pertaining to the recognition of titles in order to continue one's studies.

The admission examinations are also open to applicants who will obtain their second-level degree by the date of the first meeting of the Faculty Committee, during which the Commission will assess the academic titles (see calendar in the annexed tables).

Art. 3 Application Form

All applicants must present their applications no later than 12.00 p.m. on 29th November 2013, by performing the following steps:

- 1. registering online on the University portal by logging onto www.unimi.it *Accesso rapido Servizi REGISTER*. This operation is not required if the applicant has already registered on the portal or already possesses University's access credentials (this applies to final year students or students who graduated at the University of Milan under a year ago);
- 2. accessing with the credentials on Servizi online SIFA by going to www.unimi.it Servizi online SIFA LOGIN;
- 3. presenting their application by following these steps: Servizi di ammissione Ammissione ai corsi post laurea Dottorati di ricerca;
- paying a non-refundable fee of € 50 as a refund for selection expenses, by credit card or using the MAV form which will be directly generated by the online service.
 - Applicants residing abroad who choose to pay the enrolment fee via MAV form can settle their payment in Italy by delivering their receipt to the International Students office situated in Via S. Sofia n. 9/1.

The online admissions procedure requires applicants to **upload** the following files (in .pdf, .rtf or .jpg format, no larger than 10Mb):

- dissertation (possibly including an abstract written in English);
- degree certificate in Italian or English which indicates all the exams which have been passed and the final grade (self-certification for Italian citizens);
- CV with a description of any professional experience and other qualifications the applicant may have;
- research project (according to Annex Form 1);
- copy of passport (only for foreign applicants);
- Annex A.

Publications can be uploaded under Altri titoli.

In addition to the above mentioned documents, within the call for applications deadline **2 letters of reference** must be drafted (according to Form 2 hereby attached) and sent directly as a .pdf document by the lecturers or experts providing such references, to the e-mail address indicated in each PhD course sheet.

The online application cannot be modified nor integrated with further documents once it has been confirmed.

It is possible to apply for more than one PhD course as long as each application submitted complies with the above-mentioned criteria, including payment of a non refundable fee of €50.00.

Art. 4 Provisions for Disabled Applicants

In compliance with Article 20 of Italian Law No. 104, dated 5th February, 1992, if deemed necessary, disabled applicants may request special aids and/or additional time to carry out the competition exams. To this end, students are required to send medical certificates attesting the validity of their request via registered mail. This documentation is to be sent to this address: Università degli Studi di Milano – Divisione Segreterie studenti - Ufficio Segreteria Dottorati di ricerca, master e studenti internazionali, via Festa del Perdono n.7 – 20122 Milan

Art. 5 Entrance Examination

Admission to the PhD course follows two stages: the evaluation of qualifications and examinations.

In the first stage, the Examining Committee shall evaluate the following qualifications in compliance with the criteria of distribution of the highest score (20, 30 or 40) established by the Faculty Committee of each PhD course and listed in the annexed tables:

- dissertation (possibly including an abstract written in English);
- university career (exams passed and final grade);
- any publications;
- any professional experience and other qualifications held by the applicant;
- letters of reference by lecturers from the applicant's University or other Universities supporting the application;
- a research project, written by the applicant, which does not constitute any obligation regarding the subsequent choice of the applicant's PhD thesis.

Please note that failure to provide one of the following: applicant's dissertation, if required by the university system of the country in which the qualification was awarded (possibly including an abstract written in

English); university career (course exams passed and final grade); research project; letters of reference (as indicated in each PhD sheet), will result in the exclusion from the competition.

Qualifications and scientific publications can be provided either in Italian or English, unless otherwise indicated in the table of a specific PhD course.

Only applicants who achieve an evaluation higher than 12/20 or 18/30 or 24/40 in their qualifications are admitted to the examination in compliance with the criteria of distribution of the highest score established by the PhD Faculty Committee.

According to what is set forth in the annexed tables, the examination consists of an interview which has the purpose of verifying competence, skills and inclinations of the applicant for scientific research as well as his/her personal motivations. The interview aims to assess the applicant's knowledge pertaining to the educational and scientific subjects of the PhD and includes a formal presentation of the proposed research project on behalf of the applicant; for some PhDs, the examination also includes a written test in addition to the interview.

During the interview, knowledge of the English language, as well as of any other foreign languages indicated by the applicant, is also assessed.

The interview is a pass if the applicant obtains a score of at least 28/40 or 21/30 or 14/20, in compliance with the criteria of distribution of the highest score established by the PhD Faculty Committee.

At the end of the examination, the Committee compiles a merit ranking on the basis of the total scores obtained by the applicants (evaluation of qualifications and interview).

Should the examination consist of two tests, written and oral, the same conditions established for the interview apply: both the oral and written tests are a pass if the applicant obtains a score of at least 28/40 or 21/30 or 14/20 in compliance with the criteria of distribution of the highest score established by the PhD Faculty Committee. In this case, the merit ranking is made by the total scores obtained by the applicants in the evaluation of their qualifications plus the average mark of the tests results.

In order to attend the examinations, applicants must show one of the following forms of ID: a) identity card; b) passport; c) (Italian) driving licence.

In exceptional and duly justified cases, applicants residing abroad can have an online interview following procedures which prove their identity.

Art. 6 Examination Committees

The Examination Committees for admission to the PhD courses are chosen and appointed in accordance with the regulation in force.

At the end of every interview session, the Committee draws up the list of applicants examined, indicating the marks achieved by each applicant in the examination. On that same day, the list, signed by the Committee Chairman and Secretary, is affixed on the notice board of the Establishment where the interviews took place.

At the end of the examination, the Committee will compile the general merit ranking in accordance with art. 5, paragraphs 9 and 10.

The general merit ranking is published on SERVIZI ON LINE *Sifa - Graduatorie ammissioni corsi post laurea* on the University website http://www.unimi.it on the days following the examinations.

Art. 7 Admission to the Courses

Applicants are admitted to the courses according to the order of ranking until the number of places available for each PhD course has been filled. Should two or more applicants receive the same mark, preference will be given to younger applicants, with the exception of the right of priority criterion for PhD grants set forth in art. 9 of this call for applications. The rankings of the eligible applicants will be published online on the days following the interviews on the University website http://www.unimi.it SERVIZI ON LINE Sifa - Graduatorie ammissioni corsi post laurea.

Applicants admitted to the courses lose their entitlement if they fail to enrol within set terms. Should this occur, their place shall be given to the next applicant in the ranking list. This also applies if an admitted applicant withdraws within three months from the beginning of the course. In this case, the grant holder who withdraws must return any monthly payment he/she may have already received. Takeover applicants will be contacted directly by the *Ufficio Segreteria Dottorati di ricerca, master e studenti internazionali* via the e-mail address provided during the admission stage and are requested to state express acceptance within three days.

In the event the applicant ranks on more than one list, the applicant must choose only one PhD course.

Art. 8 Registration

Applicants admitted to PhD courses must enrol online using SERVIZI ON LINE *Sifa* and follow modalities and deadlines which will be published on the University website during the period of publication of the rankings.

PhD applicants are requested to pay a tax for accessing and attending PhD courses, which amounts to € 980.00 for A.Y. 2013/2014 and includes the regional tax for university education, insurance policy for injuries and stamp duty. Scholarship grantees are exempted from payment of the above mentioned tax of € 980.00.

Foreign applicants who do not have an Italian fiscal code must send an *Enrolment Form* available online at http://www.unimi.it/ricerca/dottorati/18532.htm by fax (0039 02 50313731) or e-mail (international.students@unimi.it), within the date published on the University website, as well as the receipt of the enrolment tax, if applicable.

Applicants who hold a foreign academic qualification must also send, within their enrolment date, original copies of the following documents to the International Students office (Via Santa Sofia n. 9/1 - 20122 Milan):

- a) academic qualification;
- Italian translation of the qualification carried out by an official translator, certified according to the existing law:
- c) "certificate of equivalence of qualification" to be requested to the Italian diplomatic representation in the Country in which the qualification was obtained;
- d) fiscal code:
- e) residency permit (only for non-EU applicants).

Documents in paragraph b) and c) can be replaced by a Diploma Supplement if such qualification was obtained at a European university.

The University reserves the right to request the "certificate of equivalence of qualification" should any doubt regarding the validity of the degree arise.

Grantees of scholarships from the Ministry for Foreign Affairs and doctorate candidates with disability higher than 66% are exempted from the payment of the enrolment tax and are required to pay only € 166.29 (regional tax for university education, insurance policy for injuries and stamp duty).

Art. 9 Scholarships

Scholarships for this call for applications are intended, without any limitations related to citizenship, to applicants with a total personal yearly income of under € 15,000.00. Scholarships are granted in compliance with the laws in force and following the ranking order and consist of an annual gross amount of € 13,638.47. The amount of the scholarship is exempt from income tax in accordance with art. 4 of Italian Law no. 476 of 13th August 1984 and is subject, in terms of social security, to the regulations set forth in article 2, paragraph 26 et seq., of Italian Law no. 335 of 8th August 1995.

In the event of equal terms of merit, the appraisal of the economic situation prevails, in accordance with Ministerial Decree of 9th April 2001.

The regional tax for university education and an expenses charge will be deducted from the scholarship (€ 166.29).

Scholarships have a yearly duration and can be renewed if the doctorate candidate has completed the programme of activities of the previous year with a positive evaluation.

Starting from the second year, each doctorate student is ensured, in addition to the scholarship and depending on the existing financial resources of the University budget, a budget for research activity in Italy and abroad which is suitable for the type of course and in any case no less than 10% of the amount of the scholarship itself.

Art. 10 Obligations of the Doctorate Students

Doctorate students are expected to regularly attend the activities of their PhD curriculum and to diligently dedicate themselves and for the full amount of hours established by the Faculty Committee to individual and guided study plans and to the execution of the research activities assigned to them.

Admission to the PhD implies an exclusive and full-time commitment, due to the specificity of this type of course, as established in paragraph 4, art. 12 of Ministerial Decree no. 45, 8th February 2013.

For the purpose of organising annual assessments, doctorate students are requested to deliver to the Faculty Committee, within its deadlines, a written report about their research activity and its results, as well as any participation in seminars, conferences and other scientific events and related publications.

Art. 11 Award of Title

The title of Doctor of Philosophy, abbreviated to The "Ph.D." title is awarded after the positive evaluation of a research dissertation which contributes to the development of knowledge or methodologies in the chosen field. The research dissertation, which must include a summary, can be written in Italian or English, or in another language upon prior authorisation on behalf of the Faculty Committee. The dissertation, to which a report written by the doctorate student about the activities carried out during the PhD course and any publications are annexed, is evaluated by at least two lecturers with high qualifications, also from foreign institutions, external to the subjects who contributed to the issue of the research title, hereinafter referred to as "evaluators". Evaluators give a written analytic assessment on the dissertation and recommend its admission to public discussion or deferment (max. 6 months) if they believe significant amendments or integrations are necessary. After this period, the dissertation is admitted to public discussion in any case,

accompanied by a new written opinion by the same evaluators, in the light of any amendments or integrations made. Public discussion takes place in front of a committee whose members are defined in accordance with the regulation. After the discussion, the dissertation can be approved or rejected with a justified written assessment of the Committee. The commission can unanimously confer honours, if the results of the research are of exceptional scientific relevance.

The University will archive the unabridged PhD dissertation and make it available online on the AIR (Institutional University Archive). If requested in advance by the PhD. doctor, and limited to needs of protection and economic exploitation of industrial and/or intellectual property, upon approval on behalf of the tutor, the dissertation can be excluded from online consultation for a period of max. 18 months.

Within thirty days of the discussion and the approval of the dissertation on the part of the University, a copy of the dissertation will be sent in electronic format to the ministerial database.

Art. 12 Treatment and Processing of Personal Information

In accordance with its Regulations issued in application of Legislative Decree no. 196 of 30th June 2003, the University commits to respecting the reserved nature of the information provided by applicants; all the data provided will be processed solely for the purposes of the competition and, if required, for the management of the applicant's relationship with the University, in compliance with the current laws.

Art. 13 Benchmark Legal Framework

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

Milan, 29th October 2013

THE RECTOR (Gianluca Vago) Signed Gianluca Vago

Prot. no. 0287597 of 31.10.2013

PHD COURSE IN AGRICULTURE, ENVIRONMENT AND BIOENERGY

| Learning Objectives | Our planet is facing the decay of its non-renewable resources and is exposed to risks deriving from climate change. The agricultural sector must supply food, non-food products, ecosystemic services and energy, whilst guaranteeing safety and food sovereignty. It is, therefore, essential to develop advanced vocational training in order to obtain efficiency and sustainability in the agricultural sector and its various territorial contexts, taking into consideration the elements involved in the production system as well as their organisation in agro-ecosystems. The course will focus on: 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, preservation of the quality of soils and water resources; e) analysis and management of technical means, agricultural processes, multi-functionality of rural areas and of agrobiodiversity. The PhD will prepare researchers to: a) develop autonomous research; b) prepare and propose public and private research projects on a local, national and international level; c) acknowledge research needs and their scientific, social and economic importance; d) transfer knowledge through teaching activities and the presentation of data and results; e) transfer the results of public and private research. |
|----------------------|---|
| 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 Biosystem Engineering) 07/D (Entomology and Plant Pathology) 07/E (Agricultural Chemistry and Genetics) 07/G (Animal Science and Technology) 07/H (Veterinary Medicine) |
| Duration | 3 years |
| Places available | 14 |
| Scholarships | 8 For the University of Milan 1 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for priority research in the Italian framework "Optimisation of typical agri-food products and of food safety through new characterisation and quality assurance systems" 1 co-financed by the Department of Agricultural and Environmental Sciences - Production, Territory, Agroenergy and by CRA-RIS for the research programme "Phenotypization of rice accession for |



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| | tolerance to aerobic cultivation in order to finalise procedures of <i>Genomic selection</i> " |
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| Contact person of the PhD course | prof. Marco Acutis, ordinary professor in the scientific-disciplinary field AGR/02 |
| Admission Criteria | Educational qualifications obtained in one of the following classes pursuant to former Ministerial Decree 270/2004, or one of the corresponding classes pursuant to former 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-35 Environmental Engineering, LM-35 Environmental and Territorial Engineering, LM-40 Mathematics, LM-42 Veterinary Medicine, LM-44 Mathematical-Physics Models for Engineering, LM-60 Natural Sciences, LM-69 Agricultural Science and Technology, LM-70 Food Science and Technology, LM-73 Forest and Environmental Science and Technology, LM-74 Geological Science and Technology, LM-75 Environmental and Territorial Science and Technology, LM-76 Environmental and Territorial Sciences LM-81 Sciences for the Development of Cooperation, LM-86 Zootechnical Sciences and Animal Technology. |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Stage one | |
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| Evaluation of qualifications | - dissertation, even with an abstract in English: maximum 10 points |
| Qualifications must be provided in accordance with art. 3 of this call for applications. | university career (course examinations passed and final grade): maximum 5 points any publications: maximum 5 points any professional experience and other qualifications: maximum 3 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to marco.acutis@unimi.it): maximum 2 points |



| | a research project, written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 5 points |
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| Date of evaluation of qualifications: | 5th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 on http://www.disaa.unimi.it/ecm/home/persone/bandi-e-albo/graduatorie-bandi-per-la-ricerca |

| Stage two | |
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| Examination diary | Interview: 11th December 2013 at 09.30 at the Department of Agricultural and Environmental Sciences - Production, Territory, Agroenergy (practice room) - via Celoria, 2 - 20133 Milan. |
| | The interview will be held in English or Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD IN MOLECULAR AND CELLULAR BIOLOGY

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| Learning Objectives | The main aims of the PhD Course in Molecular and Cell Biology are: - to create a scientific élite with excellent skills and expertise in the field of biomolecular sciences and biotechnology; - to promote a molecular approach to the study of complex biological problems in prokaryotic and eukaryotic model microorganisms, animals and plants; - to encourage collaboration between research institutes, advanced training institutes and companies in the fields of biomolecular sciences and biotechnology; - to encourage internationalisation of the PhD course through international scientific collaboration, by involving foreign lecturers, recruiting postgraduate students from outside Italy, by organising co-tutored dissertations and by arranging study periods abroad. The PhD training will be characterised by: - multidisciplinary features; - interactivity; - links to the business world; - internationalisation. The key element of PhD training is the integration of doctorate students in experimental research activities. They will work full time on a research project and also contribute with critiques and suggestions, thus acquiring scientific and organisational independence. |
| Academic disciplines | 01/B (Computer Science) 02/B (Physics of Matter) 03/D (Pharmaceutics, Technology, Food) 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) 06/A (Pathology and Laboratory Diagnostics) |
| Duration | 3 years |
| Places available | 17, 1 of which is exclusively reserved to grant recipients from abroad |
| Scholarships | 10 For the University of Milan 2 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for priority research in the Italian framework: "Human health (study and treatment of tumours and degenerative diseases through new approaches deriving from knowledge of the human genome)" and "Optimisation of typical agri-food products and of food safety through new characterisation and |



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| | quality assurance systems" 1 financed by the Department of Bioscience for the research programme "Role of the transcriptional factor Nfix in the regeneration of muscles and in muscular dystrophy" 1 financed by the Department of Bioscience for the research programme "Neural differentiation of human embryonic stem cells" 1 financed by UniStem - Centre for stem cell research for the research programme "Effect of mutated huntingtin protein on lipid metabolism and synaptic functions" 1 of the above-mentioned scholarships is exclusively reserved to grant recipients from abroad. |
| Contact person of the PhD course | prof. Marco Muzi Falconi, adjunct professor in the scientific-disciplinary field BIO/11 |
| Admission Criteria | Educational qualifications obtained in one of the following classes pursuant to former Ministerial Decree 270/2004, or one of the corresponding classes pursuant to former Ministerial Decree 509/99: LM-6 Biology, LM-7 Agricultural Biotechnology, LM-8 Industrial Biotechnology, LM-9 Medical, Veterinary and Pharmaceutical Biotechnology, LM-13 Pharmacy and Industrial Pharmacy, LM-17 Physics, LM-18 Computer Science, LM-21 Biomedical Engineering, LM-22 Chemical Engineering, LM-35 Environment and Territorial 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 Orthodontics, LM-47 Organisation and Management of Services for Sports and Motor Activities, LM-51 Psychology, LM-53 Material Sciences and Engineering, LM-54 Chemical Sciences, LM-58 Sciences of the Universe, LM-59 Sciences of Public, Corporate and Advertising Communication LM-60 Natural Sciences, LM-67 Science and Techniques of Preventive and Adapted Motor Activities, LM-68 Sports Sciences and Technology, LM-69 Agricultural Sciences and Technology, LM-69 Agricultural Sciences and Technology, LM-69 Agricultural Sciences and Technology, LM-70 Food Sciences and Technology of Industrial Chemistry, |

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| | LM-73 Forest and Environmental Science, LM-74 Geological Sciences and Technology, LM-75 Environment and Territorial Science and Technology, LM-78 Philosophical Sciences, LM-82 Statistical Sciences, LM-86 Zootechnical Sciences and Animal Technology, LM-92 Communication Theory, LM/SNT1 Nursing and Midwifery, LM/SNT2 Health Professions for Rehabilitation, LM/SNT3 Health Professions for Technical Assistance LM/SNT4 Health Professions for Preventive Care |
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| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points |

| Stage one | |
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| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract written in English: maximum 6 points. Applicants who obtained a qualification in a country in which a dissertation thesis is not required must provide a brief treatise on the state of the art of a specific aspect related to bioscience, which will be discussed during the interview. These applicants will receive a conditional admission and their discussion of the above-mentioned treatise will be compared and assessed like a dissertation thesis. university career (course examinations passed and final grade), any professional experience and other qualifications possessed by the applicant: maximum 9 points any publications and conference contributions: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to margherita.russo@unimi.it): maximum 1 point a research project written by the applicant in English, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 2 points. |
| Date of evaluation of qualifications: | 5th December 2013 |
| Results of the evaluation of qualifications | Available from 6th December 2013 on: http://www.dbs.unimi.it . |



| Examination diary | Interview: 12th and 13th December 2013 at 09:00 a.m. at the University of Milan - Biological Buildings Lecture Hall ex lauree, 2nd floor Tower A – via Celoria, 26 - 20133 Milan. |
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| | The interview will be held in English or in Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN CHEMISTRY

| nD course in Chemistry aims at providing doctors with to perform a critical analysis of scientific research ms in the field of chemistry, and to identify and pursue ant objectives. This PhD course trains professionals ill be able to work in the industry sector, in private and institutions, as well as in the academic field. The academic field are students will acquire all the knowledge and working its necessary to carry out research activities with very cientific standards in all the interdisciplinary fields of stry. The central role of Chemistry in modern life is acknowledged today. This science intersects with a scientific disciplines (such as, physics and biology) therefore, applied in different fields, from medicine to atterials, from agriculture to energy, from biology to mics, from cultural heritage conservation to mental protection. Advanced chemical research is fall to underpin the development of many scientific mes and production facilities of a modern country. The stry will focus on the following subjects: 1. Synthesis, ity, reaction mechanisms, catalysis; 2. Structural stry, spectroscopic investigations; 3. Theoretical and tational chemistry; 4. Solid-state, interphase and lyte chemistry, 5. Chemistry of biologically active unds, food and natural substances, biocatalysis; 6. stry of the environment and of cultural heritage; 7. stry of materials, chemistry for nanotechnologies, molecular chemistry, chemistry for energy. For the environment and of cultural heritage; 7. stry of materials, chemistry for energy. For materials, chemistry for energy. For the environment and of cultural heritage; 7. stry of materials, chemistry for energy. For materials, chemistry for energy. For the environment and of cultural heritage; 7. stry of materials, chemistry for energy. For materials, chemistry for energy. For the environment and of cultural heritage; 7. stry of materials, chemistry for energy. For materials, chemistry for energy. For materials, chemistry for energy. For materials, energy for energy. For materials, |
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| Analytical, chemical-physical) norganic, technological) Organic, industrial) Pharmaceutics, Technology, Food) |
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| he University of Milan funds provided by Progetto Giovani 2012 (2012 Project), reserved for priority research in the Italian york: "Energy saving and distributed eneration" nced by Linnea SA for the research programme stion, purification and semisynthesis of molecules of origin" |
| tion, pur |



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| Contact person of the PhD course | prof. Emanuela Licandro, ordinary professor in the scientific-disciplinary field CHIM/06 |
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| Admission Criteria | Educational qualifications obtained in one of the following classes pursuant to former Ministerial Decree 270/2004, or one of the corresponding classes pursuant to 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-30 Energy and Nuclear Engineering, LM-31 Computer Engineering, LM-32 Computer Engineering, LM-35 Mathematics, LM-58 Sciences of the Universe, LM-60 Natural Sciences, LM-61 Human Nutritional Science, LM-71 Science and Technology of Industrial Chemistry, LM-74 Geological Sciences and Technology, LM-75 Environment and Territorial Sciences and Technology, LM-79 Geophysical Sciences. |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 5 points university career (course examinations passed and final grade): maximum 16 points any publications: maximum 2 points any professional experience and other qualifications: maximum 4 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to emanuela.licandro@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 1 point |



| Date of evaluation of qualifications: | 6th December 2013 |
|---|---|
| Results of the evaluation of qualifications | Available from 9th December 2013 on: http://users.unimi.it/ScDotChi/index.htm . |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 13th December 2013 at 10.00 am at the Department of Chemistry ("Mario Farina" hall) - via Golgi, 19 - 20133 Milan. |
| | The interview will be held in English or in Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN INDUSTRIAL CHEMISTRY

| The PhD in Industrial Chemistry focuses on the extensive application of chemistry in industrial processes. It aims to |
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| train future doctors to understand theoretical and practical problems, as well as economic, environmental and safety issues. Doctors will possess considerable scientific expertise and will be able to organise and manage research activities, as well as analyse the aspects pertaining to scale passages. The main research trends are: physical chemistry and catalysis in industrial processes; industrial electrochemistry and corrosion; synthesis, properties and structure of polymers; synthesis and processes of fine chemicals; synthesis, processes and verifications in primary chemistry; chemical biotechnology; innovative chemical processes; new structural and functional materials; innovative energy technologies; nanotechnologies. An important educational aspect for doctorate students is the opportunity to meet foreign researchers and come into contact with internationally renowned research institutes. This is achieved by assigning a part of teaching activities to foreign lecturers, and also by giving students the opportunity to spend time abroad in foreign research institutions. |
| 03/A (Analytical, chemical-physical) 03/B (Inorganic, technological) 03/C (Organic, industrial) 09/D (Chemical and material engineering) |
| 3 years |
| 10 |
| 6 For the University of Milan 1 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for priority research in the Italian framework: "Advanced materials (ceramic, in particular) for structural applications" |
| prof. Dominique Roberto, ordinary professor in the scientific-disciplinary field CHIM/03 |
| Educational qualifications obtained in one of the following classes pursuant to former Ministerial Decree 270/2004, or one of the corresponding classes pursuant to 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-71 Science and Technology of Industrial Chemistry. |
|-----------------------|--|
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 5 points university career (course examinations passed and final grade): maximum 16 points any publications: maximum 2 points any professional experience and other qualifications: maximum 4 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to dominique.roberto@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 1 point |
| Date of evaluation of qualifications: | 6th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 on : http://users.unimi.it/ScDotChi/index.htm . |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 16th December 2013 at 09.30 am at the Department of Chemistry ("L. Malatesta" hall) - via Golgi, 19 - 20133 Milan. |
| | The interview will be held in English or in Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN EPIDEMIOLOGY, ENVIRONMENT AND PUBLIC HEALTH

| Learning Objectives | This PhD course focuses on training professionals and researchers who can contribute to the development of research methodologies in the healthcare field, from laboratories to clinics, from prevention to services for the protection and promotion of health in individuals and populations, in living environments and work places and in the application of economic principles to healthcare system management. Doctorate students will acquire solid know-how in the quantitative disciplines required to draft and analyse studies for the identification of the determining factors of a disease, prognostic factors, diagnostic-therapeutic paths and studies conducted in the field of clinical research. This PhD will enlarge on research related to prevention and control systems of infectious diseases, including paediatric and chronic-degenerative diseases and those related to food, work and assistance, also through the use of predictive models of disease risks and/or genetic susceptibility and a cost/benefit analysis of the prevention policies available. The PhD course will also examine the problems existing between work, environment and health, directing the studies of young researchers to current subjects of the utmost social and healthcare importance, cutting edge topics that are also of interest to many regulatory bodies and qualified research centres. |
|----------------------------------|---|
| Academic disciplines | 06/D (Specialised Clinical Medicine) 06/G (Paediatrics) 06/M (Public Healthcare) 13/A (Economics) |
| Duration | 3 years |
| Places available | 6 |
| Scholarships | 4 For the University of Milan |
| Contact person of the PhD course | prof. Adriano Decarli, ordinary professor in the scientific-disciplinary field MED/01 |
| Curriculum | Biostatistics and Epidemiology Hygiene and Public Health Industrial Health and Medicine |
| Admission Criteria | Educational qualifications obtained in one of the following classes pursuant to Ministerial Decree 270/2004, or one of the corresponding classes pursuant to Ministerial Decree 509/99: LM-6 Biology, |
| | LM-7 Agricultural Biotechnology, LM-8 Industrial Biotechnology, LM-9 Medical, Veterinary and Pharmaceutical |



| | Biotechnology, |
|-----------------------|---|
| | LM-13 Pharmacy and Industrial Pharmacy, |
| | LM-17 Physics, |
| | LM-18 Computer Science, |
| | LM-21 Biomedical Engineering, |
| | LM-31 Administrative Engineering, |
| | LM-32 Computer Engineering, |
| | LM-35 Environment and Territorial Engineering, |
| | LM-40 Mathematics, |
| | LM-41 Medicine and Surgery, |
| | 9 , |
| | LM-42 Veterinary Medicine, |
| | LM-46 Dentistry and Orthodontics, |
| | LM-47 Organisation and Management of Services for |
| | Sports and Motor Activities, |
| | LM-48 Territorial, Urban and Environmental Planning, |
| | LM-50 Planning and Management of Educational |
| | Services, |
| | LM-51 Psychology, |
| | LM-54 Chemical Sciences, |
| | LM-55 Cognitive Sciences, |
| | LM-56 Economic Sciences, |
| | LM-57 Adult Education and Continuous Learning |
| | Sciences, |
| | LM-58 Sciences of the Universe, |
| | LM-59 Sciences of Public, Corporate and Advertising |
| | Communication, |
| | LM-60 Natural Sciences, |
| | · · |
| | LM-61 Human Nutritional Science, |
| | LM-62 Political Science, |
| | LM-63 Science of Public Administrations, |
| | LM-67 Science and Techniques of Preventive and |
| | Adapted Motor Activities, |
| | LM-69 Agricultural Sciences and Technology, |
| | LM-70 Food Science and Technology, |
| | LM-71 Science and Technology of Industrial Chemistry, |
| | LM-73 Forest and Environmental Sciences, |
| | LM-75 Environment and Territorial Sciences and |
| | Technology, |
| | LM-76 Environmental and Cultural Economic Sciences |
| | LM-77 Economic and Business Science, |
| | LM-81 Science for the Development of Cooperation, |
| | LM-82 Statistical Sciences, |
| | LM-83 Statistical, Actuarial and Financial Sciences, |
| | LM-85 Pedagogical Sciences, |
| | LM-86 Zootechnical Sciences and Animal Technology, |
| | |
| | LM-87 Social Services and Policies, |
| | LM-88 Sociology and Social Research, |
| | LM/SNT1 Nursing and Midwifery, |
| | LM/SNT2 Health Professions for Rehabilitation, |
| | LM/SNT4 Health Professions for Preventive Care, |
| | LMG/01 Jurisprudence |
| Distribution of marks | Titles: maximum 30 points |
| | Interview: maximum 30 points |
| | ' |
| | |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 6 points university career (course examinations passed and final grade): maximum 3 points any publications: maximum of 4 points any professional experience and other qualifications: maximum 3 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to adriano.decarli@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 12 points |
| Date of evaluation of qualifications: | 10th December 2013 |
| Results of the evaluation of qualifications | Available from 11th December 2013 on http://discco.unimi.it - Section "Primo piano" |

| Interview: 13th December 2013 at 10.00 a.m. at the Department of Biomedical Sciences for Health - via Pascal, 36 - 20133 Milan. The interview will be held in English or in Italian, as preferred |
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| by the applicant. This diary of admission exams is official notice for the interested parties. |
| |

PHD COURSE IN PHILOSOPHY AND HUMAN SCIENCES

| Learning Objectives | The PhD Course in Philosophy and Human Sciences aims to offer a brand new track for higher education, which integrates the competences 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 knowledge made available by philosophical research in both their theoretical and historical manifestations. This PhD Course offers multidisciplinary training and aims to provide extensive knowledge in specific sectors of essential and applied research, promoting development in innovative and cutting-edge fields, which promote the ability to master theories, methods and techniques of various fields. In particular, the objective of this course is to provide the doctorate student with solid philosophical and scientific preparation in one of the following research areas: (i) History of philosophical and scientific thought (ii) Ethics and political thought (iii) Image theory and phenomenology of experience (iv) Logic and theory of languages (v) Philosophy of mind and cognitive science (vi) Anthropology and territorial science. |
|----------------------------------|---|
| Academic disciplines | 05/D (Physiology) 10/G (Glottology and Linguistics) 10/M (Germanic and Slavonic Languages, Literature and Culture) 11/A (Historical Disciplines) 11/B (Geography) 11/C (Philosophy) 11/E (Psychology) 14/B (Political History) |
| Duration | 3 years |
| Places available | 6 |
| Scholarships | 5 For the University of Milan |
| Contact person of the PhD course | prof. Corrado Sinigaglia, adjunct professor in the scientific- disciplinary field M-FIL/02 |
| Admission Criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Stage one | |
|------------------------------|--|
| Evaluation of qualifications | - dissertation, even with an abstract in English: maximum 3 points |



| Qualifications must be provided in accordance with art. 3 of this call for applications. | university career (course examinations passed and final grade): maximum 7 points any publications: maximum 3 points any professional experience and other qualifications: maximum 1 point two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to corrado.sinigaglia@unimi.it): maximum 1 point a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 15 points |
|--|---|
| Date of evaluation of qualifications: | 6th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 on: http://www.dipafilo.unimi.it/ecm/home/scuola-di-dottorato |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 16th December 2013 at 2.30 p.m. at the University of Milan - Didactic sector (Hall 111) - via Festa del Perdono, 7 - 20122 Milan |
| | The interview will be held in English or in Italian, as preferred by the applicant. This diary of admission exams is official notice for the |
| | interested parties. |

PHD COURSE IN PHYSICS, ASTROPHYSICS AND APPLIED PHYSICS

| | T = 1 |
|----------------------------------|--|
| Learning Objectives | The main topic of this PhD course is Physics in advanced sectors of essential and applied research. The research spectrum covers all the subjects of modern Physics as indicated in the 5 curricula offered, with the purpose of facilitating the integration of doctorate students into specific sectors. The required basic training is guaranteed by a combination of courses specifically activated for this PhD course, and courses exceptionally borrowed from the two year specialisation course (laurea magistrale), with examinations at the end of the first year. Moreover, doctorate students are required to attend an International School with final assessment through a public conference. The PhD course also includes various opportunities for discussion and cross exchanges between students of different courses, particularly during a workshop at the end of the academic year. Training is integrated with coordinated series of subject-specific conferences ("Physics Colloquia"). At the same time, doctorate students will have to focus on original research, under the guidance of a tutor and a co-tutor, and demonstrate their progress during annual conferences during which doctorate students will present their findings to the whole scientific community of the university. This PhD course also offers internships at National and International Laboratories and Research Laboratories of private bodies related to Essential Physics or High Technology. |
| Academic disciplines | 01/B (Computer Science) 02/A (Physics of Essential Interactions) 02/B (Physics of Matter) 02/C (Astronomy, Astrophysics, Earth and Planetary Physics) 03/B (Inorganic, Technological) 09/E (Electric and Electronic Engineering and Measures) |
| Duration | 3 years |
| Places available | 22 |
| Scholarships | 13 For the University of Milan 1 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for priority research in the Italian framework: "Advanced materials (ceramics, in particular) for structural applications" 1 financed by the Università Cattolica del Sacro Cuore 3 financed by the National Institute for Nuclear Physics |
| Contact person of the PhD course | prof. Marco Bersanelli, ordinary professor in the scientific- disciplinary field FIS/05 |
| Curriculum | Astrophysics Physics of Matter |



Area Affari Istituzionali, Internazionali e Formazione Divisione Formazione Universitaria e Formazione Permanente

| | 3. Nuclear and Particle Physics4. Essential Theoretical Physics5. Applied Physics |
|-----------------------|--|
| Admission Criteria | Educational qualifications obtained in one of the following classes pursuant to former Ministerial Decree 270/2004, or one of the corresponding classes pursuant to former 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 Electric Engineering, LM-30 Energy and Nuclear Engineering, LM-30 Energy and Nuclear Engineering, LM-31 Mechanical Engineering, LM-40 Mathematics, LM-40 Mathematics, LM-44 Mathematical and Physical Modelling for Engineering, LM-53 Material Science and Engineering, LM-54 Chemical Sciences, LM-54 Chemical Sciences of the Universe, LM-71 Science and Technology of Industrial Chemistry, LM-74 Geological Sciences and Technology, LM-75 Environment and Territorial Science and Technology, LM-79 Geophysical Sciences, LM-79 Geophysical Sciences, LM-79 Geophysical Sciences. |
| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points |

| Stage one | |
|---|---|
| Evaluation of qualifications | - dissertation, even with an abstract in English: maximum 3 points |
| Qualifications must be provided following the indications mentioned in art. 3 of this document. | university career (course examinations passed and final grades of Bachelor's and Master's degree): maximum 6 points any publications: maximum 1 point any professional experience and other qualifications: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to phd@fisica.it): maximum 3 points |



| | a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 5 points |
|---|--|
| Date of evaluation of qualifications: | 5th December 2013 |
| Results of the evaluation of qualifications | Available from 7th December 2013 on: http://phd.fisica.unimi.it/admission/year2013/ . |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: starting from 10th December 2013 at 2.00 p.m. at the Department of Physics, "Polvani" hall - via Celoria,16 - 20133 Milan. |
| | The schedule of oral examinations will be published on the PhD course website http://phd.fisica.unimi.it/admission/year2013/ after the titles submitted by applicants have been evaluated. |
| | The interview will be held in English or in Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN COMPUTER SCIENCE

| T | |
|----------------------------------|--|
| Learning Objectives | The PhD in Computer Science aims to provide doctorate students with advanced scientific, methodological and technological knowledge of the disciplinary-scientific sector of computer science, as well as related sectors and corresponding applications. This knowledge is designed to train and introduce doctorate students to theoretical and applied research on interdisciplinarity and internationalisation, building scientifically and culturally autonomous investigational skills, and making them able to produce original results, which can be significant for the international scientific community and companies. The PhD in Computer Science aims to provide: - solid wide-ranging knowledge on the basics of science, methodologies and technologies of IT and related fields, - advanced and in-depth competencies related to specific disciplinary aspects, - interdisciplinary skills necessary to optimise cultural and methodological synergies, - a sound methodological grounding in the conduct of research, as well as in its organisation, management and dissemination, - opportunities of education on an international level, - better preparation of doctorate students and their professional introduction into the field of academic research and companies. |
| Academic disciplines | 01/A (Mathematics) 01/B (Computer Science) 09/H (Computer Engineering) |
| Duration | 3 years |
| Places available | 16 |
| Scholarships | 9 For the University of Milan 2 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for priority research in the Italian framework: "ICT and electronic components" |
| Contact person of the PhD course | prof. Ernesto Damiani, ordinary professor in the scientific- disciplinary field INF/01 |
| Admission Criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |



| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 5 points university career (course examinations passed and final grade): maximum 5 points any publications: maximum 5 points any professional experience and other qualifications: maximum 3 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to segreteria.dottoratoinformatica@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 10 points. |
|---|---|
| Date of evaluation of qualifications: | 5th December 2013 |
| Results of the evaluation of qualifications | Available from 6th December 2013 on: http://turing.crema.unimi.it/ScuolaDottorato/ |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 10th and 11th December 2013 at 9.30 a.m. at the Department of Computer Science (meeting room, 2nd floor) - via Comelico, 39-41 - 20135 Milan. |
| | A schedule of oral examinations will be published on the PhD course website http://turing.crema.unimi.it/ScuolaDottorato/ after the titles submitted by applicants have been evaluated. |
| | The interview will be held in English or in Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN CLINICAL AND EXPERIMENTAL MEDICINE

| TIL DID |
|---|
| This PhD course aims to train doctors who are able to conduct clinical research related to the study of pathogenesis, diagnosis, prognosis and therapeutic support of the main pathologies of internal and specialised medicine. All approaches will start from a clinical observation at the patients' 'bedside' and will then be transferred to laboratory research or animal models and vice-versa. A collaboration with industries in the field of diagnostics, biotechnology and pharmacy will be put into effect, with the purpose of implementing collaborative studies in these fields. Such collaborations may play a positive role in facilitating the access of doctors to working contexts. Moreover, a collaboration with research bodies and Italian and foreign universities will be implemented, allowing doctorate students to carry out periods of training and work. Research will mainly focus on: - hepatology and gastrointestinal diseases - infectious diseases - diseases of the endocrine system - haemostasis and thrombosis - cardiovascular diseases - medical emergencies |
| 06/A (Pathology and Diagnostics Laboratory) 06/B (General Clinical Medicine) 06/D (Specialised Clinical Medicine) 06/L (Clinical Anaesthesiology) |
| 3 years |
| 12 |
| 7 For the University of Milan 1 financed by Werfen Medical Device Trading (Beijing) Company Limited for the research programme "Evolution of D-Dimer and other parameters average reference values during pregnancy, relation with Thrombosis" |
| prof. Antonella D'Arminio Monforte, ordinary professor in the scientific-disciplinary field MED/17 |
| Educational qualifications obtained in one of the following classes pursuant to former Ministerial Decree 270/2004, or one of the corresponding classes pursuant to former Ministerial Decree 509/99: LM-6 Biology, LM-9 Medical, Veterinary and Pharmaceutical Biotechnology, LM-13 Pharmacy and Industrial Pharmacy, LM-41 Medicine and Surgery, LM-61 Human Nutritional Science, |
| |

| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points | |
|-----------------------|--|--|
| | Interview: maximum 40 points | |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 2 points university career (course examinations passed and final grade): maximum 2 points any publications: maximum 2 points any professional experience and other qualifications: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to antonella.darminio@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 10 points |
| Date of evaluation of qualifications: | 9th December 2013 |
| Results of the evaluation of qualifications | Available from 12th December 2013 on http://www.diss.unimi.it/ecm/home/didattica/dottorati |

| Stage two | |
|-------------------|--|
| Examination diary | Interview: 16th December 2013 at 09.30 a.m. at the Department of Health Sciences - via A. Di Rudinì, 8 - 20142 Milan. The interview will be held in English or in Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN MOLECULAR AND TRANSLATIONAL MEDICINE

| Learning Objectives | The activities of the PhD Course in Molecular and Translational Medicine concern the area of "Life Sciences" |
|----------------------|---|
| | and its biomedical applications, providing doctorate students with tools to understand the biological and physiopathological basis for treating and preventing diseases. The main objective is to provide unifying |
| | transversal knowledge and technologies which, in the post-genomic era, can combine basic medical disciplines that used to be separated (biochemistry, biology, molecular biology, physiology, pharmacology, general pathology, immunology, genetics, virology, pathological anatomy) to applied medical sciences and medical research. The long-standing collaboration with industries in the field of diagnostics, pharmaceuticals, IT and design of scientific equipment will be strengthened. This proves the interest of biotechnological and biomedical companies, |
| | which consider the activities of this PhD course as a concrete opportunity to step into or strengthen their presence in a steadily developing sector. At the same time, this collaboration offers a possible professional opportunity for doctorate students. |
| Academic disciplines | 05/A (Plant Biology) |
| | 05/B (Animal Biology and Anthropology) 05/C (Ecology) |
| | 05/D (Physiology) 05/E (Experimental and Clinical Biochemistry and Molecular |
| | Biology) |
| | 05/F (Applied Biology) 05/G (Experimental and Clinical Pharmaceutical Sciences) |
| | 05/H (Human Anatomy and Histology) 05/I (Genetics and Microbiology) |
| | 05/L (Science of Physical Exercise and Sports) |
| | 06/A (Pathology and Laboratory Diagnostics) 06/B (General Clinical Medicine) |
| | 06/C (General Clinical Surgery) 06/D (Specialised Clinical Medicine) |
| | 06/E (Specialised Clinical Surgery) |
| | 06/F (Integrated Clinical Surgery) 06/G (Clinical Paediatrics) |
| | 06/H (Clinical Gynaecology) 06/I (Clinical Radiology) |
| | 06/L (Clinical Anaesthesiology) |
| | 06/M (Public Healthcare) 06/N (Healthcare Professions and Applied Medical |
| | Technologies) |
| Duration | 3 years |
| Places available | 14 |
| Scholarships | 9 For the University of Milan |

| Contact person of the PhD course | prof. Mario Clerici, ordinary professor in the scientific- disciplinary field MED/04 |
|----------------------------------|---|
| Admission Criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Stage one | 1 | |
|---|--|--|
| Stage one | | |
| Evaluation of qualifications | dissertation, even with an abspoints | - |
| Qualifications must be provided | university career (course ex | aminations passed and final |
| following the indications mentioned | grade): maximum 15 points | |
| in art. 3 of this document. | The applicant's final grade is e | evaluated as follows: |
| | | |
| | Final grade | Points |
| | 110 with honours | 15 |
| | 110 | 13 |
| | 109 | 12 |
| | 108 | 11 |
| | 107 | 10 |
| | 106 | 9 |
| | 105 | 8 |
| | 104 | 7 |
| | 103 | 6 |
| | 102 | 5 |
| | 101 | 4 |
| | 100 | 3 |
| | 99 | 2 |
| | 98 | 1 |
| | any publications: maximum 2 any professional experience a applicant; two letters of refere the applicant's University or the application (to be sen maximum 2 points a research project written by | and other qualifications of the ence written by lecturers from other Universities supporting it to mario.clerici@unimi.it): the applicant, which does not |
| Date of evaluation of qualifications: | constitute any obligation to the dissertation topic: maximum 5 | |
| Date of evaluation of qualifications. | 0.1. 2000111001 2010 | |
| Results of the evaluation of qualifications | Available from 6th December 20 http://sdmm.ariel.ctu.unimi.it/v1/h | |

| Stage two | |
|-----------|--|
| | |



| Examination diary | Interview: 10th and 11th December 2013 at 09.30 a.m. at the Didactic sector of LITA, Segrate - via F.lli Cervi, 93 - 20090 Segrate (MILAN). |
|-------------------|--|
| | The schedule of oral examinations will be published on http://sdmm.ariel.ctu.unimi.it/v1/home/PreviewArea.aspx after the titles submitted by applicants have been evaluated. |
| | The interview will be held in English or in Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN EXPERIMENTAL MEDICINE AND MEDICAL BIOTECHNOLOGIES

| Learning Objectives | The PhD Course in Experimental Medicine and Medical Biotechnology focuses on the development and use of experimental preclinical approaches, advanced biotechnological and diagnostic laboratory methodologies for research on the aetiopathogenetic mechanisms at the basis of human pathologies in different disciplinary fields. Its main objectives are the development of advanced technological and methodological competencies in the biomedical field, the acquisition of autonomy in planning, the creation of research projects, and the development of the skill to present experimental results. The PhD course also promotes exchanges with Italian and international research institutions and advanced training schools to achieve a high degree of internationalisation, also by involving foreign lecturers in research and training activities, enrolling foreign students and activating co-tutored individual programmes. |
|----------------------------------|---|
| Academic disciplines | 05/E (Experimental and Clinical Biochemistry and Molecular Biology) 05/F (Applied Biology) 05/G (Experimental and Clinical Pharmaceutical Sciences) 06/A (Pathology and Laboratory Diagnostics) 06/B (General Clinical Medicine) 06/D (Specialised Clinical Medicine) 06/N (Healthcare Professions and Applied Medical Technologies) |
| Duration | 3 years |
| Places available | 17 |
| Scholarships | 7 For the University of Milan 2 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for priority research in the Italian framework: "Human health (study and treatment of tumours and degenerative illnesses through new approaches deriving from knowledge of the human genome)" 1 financed by the Anna Villa and Felice Rusconi Foundation for the research programme "Study of the adjuvant role of IgE in anti-tumoral immunotherapies" 2 financed by Società Humanitas Mirasole S.p.A. 1 for the research programme "Study of the interaction between immune system and carcinogenic stem cells in liver tumours" and 1 for the research programme "Molecular mechanisms of peripheral lymphoid differentiation" 1 financed by SOFAR S.p.A. for the research programme "The role of intestinal flora in the pathogenesis of intestinal chronic inflammatory diseases and in colon tumour" |
| Contact person of the PhD course | prof. Massimo Locati, adjunct professor in the scientific-disciplinary field MED/04 |
| Admission Criteria | All the two year specialisation courses (magistrale) |

| Distribution of marks | Titles: maximum 30 points |
|-----------------------|------------------------------|
| | Interview: maximum 30 points |
| | |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 4 points university career (course examinations passed and final grade): maximum 10 points any publications: maximum 4 points any professional experience and other qualifications: maximum 4 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to dottoratopatologia@unimi.it): maximum 4 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 4 points |
| Date of evaluation of qualifications: | 6th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 on: http://www.biometra.unimi.it |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 10th December 2013 at 08.30 a.m. at the Department of Medical Biotechnology and Translational Medicine - via Vanvitelli, 32 - 20133 Milan. |
| | The interview will be held in English or in Italian, as preferred by the applicant. This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN INTEGRATIVE BIOMEDICAL RESEARCH

| Learning Objectives | The PhD Course in Integrated Biomedical Research aims to train who master scientific and project management methods for basic and applied physiological and morphofunctional research in the fields of biomedicine and sport. Lecturers aim to promote studies, which analyse morphological and physiological aspects of biological structures at every level of structural organisation, from cells to tissues, from organs to the whole human body, their alterations and person/environment interactions in an integrated way, both from a qualitative and a quantitative point of view. The convergence of biomorphological and physiological approaches is particularly important for those who wish to dedicate their studies to advanced research in the field of biology and cell physiology, focusing in particular on the relationship between structure and function in cell membranes, where anatomy and physiology find enough space for synthesis and integration, on the nervous and endocrine systems, motor control, biomechanics of movement and locomotion, and on physical and sports activities. |
|----------------------|--|
| Academic disciplines | 05/A (Plant Biology) 05/B (Animal Biology and Anthropology) 05/C (Ecology) 05/D (Physiology) 05/E (Experimental and Clinical Biochemistry and Molecular Biology) 05/F (Applied Biology) 05/F (Applied Biology) 05/G (Experimental and Clinical Pharmaceutical Science) 05/H (Human Anatomy and Histology) 05/I (Genetics and Microbiology) 05/L (Science of Physical Exercise and Sports) 06/A (Pathology and Laboratory Diagnostics) 06/B (General Clinical Medicine) 06/C (General Clinical Medicine) 06/C (Specialised Clinical Surgery) 06/F (Integrated Clinical Surgery) 06/F (Integrated Clinical Surgery) 06/G (Clinical Paediatrics) 06/H (Clinical Radiologic) 06/L (Clinical Radiologic) 06/L (Clinical Radiologic) 06/N (Public Healthcare) 06/N (Healthcare) 06/N (Healthcare) 06/N (Mechanical, Aerospace and Marine Engineering) 09/B (Manufacturing, Plant and Administrative Engineering) 09/C (Energy, Thermo-Mechanical and Nuclear Engineering) 09/C (Energy, Thermo-Mechanical and Nuclear Engineering) 09/C (Energy, Thermo-Mechanical and Nuclear Engineering) 09/C (Systems Engineering and Bioengineering) 09/F (Telecommunications and Electromagnetic Fields Engineering) 09/F (Computer Engineering) 11/A (Historical Disciplines) |



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| Duration | 11/C (Philosophy) 11/D (Pedagogy) 11/E (Psychology) 3 years |
|----------------------------------|---|
| Places available | 17 |
| Scholarships | 9 For the University of Milan 1 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for priority research in the Italian framework: "New applications of biomedical industry" 1 financed by the National Research Council - Institute of Molecular Bioimaging and Physiology (IBFM) for the research programme "Study of cardiovascular, respiratory and metabolic factors, which limit physical performance in healthy subjects (both sedentary and athletes) and subjects suffering from various pathologies" 1 financed by the Department of Pharmacological and Biomolecular Sciences |
| Contact person of the PhD course | prof. Chiarella Sforza, ordinary professor in the scientific-disciplinary field BIO/16 |
| Curriculum | Molecular and Cellular Physiology Morphology Neurosciences Sports Sciences Systems Physiology |
| Admission Criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points |

| Stage one | |
|---|--|
| Evaluation of qualifications | - dissertation, even with an abstract in English: maximum 5 points |
| Qualifications must be provided following the indications mentioned in art. 3 of this document. | university career (course examinations passed and final grade): maximum 5 points any publications: maximum 4 points any professional experience and other qualifications: maximum 3 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to chiarella.sforza@unimi.it): maximum 1 point a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 2 points |



| Date of evaluation of qualifications: | 6th December 2013 |
|---|---|
| Results of the evaluation of qualifications | Available from 9th December 2013 on: http://www.scibis.unimi.it/ecm/home/didattica/scuola-didottorato/ricerca-biomedica-integrata |

| Stage two | |
|-------------------|--|
| Examination diary | Interview: 10th and 11th December 2013 at the Department of Biomedical Sciences for Health - via Mangiagalli, 31 - 20133 Milan. |
| | The schedule of oral examinations will be published on the PhD website http://www.scibis.unimi.it/ecm/home/didattica/scuola-didottorato/ricerca-biomedica-integrata after the titles submitted by applicants have been evaluated. |
| | The interview will be held in English or in Italian, as preferred by the applicant. |
| | This diary of admission exams is official notice for the interested parties. |

PHD COURSE IN ENVIRONMENTAL SCIENCES

Learning Objectives

The PhD Course 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, the territory and human health.

The primary objectives of the learning and research track include providing and building the following skills:

- awareness and adequate knowledge of the multiple methodological, instrumental, analytical, statistical and model-based approaches to the 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 PhD course 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;
- interactions between Man and the environment, even diachronically, both in terms of analysis of the effect of anthropic activities and disturbance on highly natural environments and, mutually, in terms of evaluation of the exposure and effects of the quality of the living and working environment on the toxicological risk and on the health hazard.

The Course especially centres on certain general themes in which the members of the Faculty Committee possess particular competencies, namely:

- analysis of natural environments and of those disturbed by Man; study of environmental pollution and of its ecotoxicological consequences, especially the effects and mechanisms of action of exposure to contaminants (xenobiotics, agents that interfere with the endocrine system, atmospheric particulate), or of environmental stress on biological processes, both *in vivo* and *in vitro* (damage to the DNA and to proteins, cell damage, reproductive anomalies, alterations in development, teratogenesis and other biomarkers, both in animal and human models), and genetic, epigenetic and molecular mechanisms that control the cell cycle, the metabolism, or that form the molecular grounds for resistance to



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| parasites | in ۱) | vegetal | mod | lels) |); |
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|-----------|-------|---------|-----|-------|----|

- study in vegetal and animal models of genetic and environmental adaptation and determinism phenotypic variability in morphological, physiological and behavioural characters; of the expression of phenotypic plasticity and of the evolution of populations, including speciation processes, in response to environmental conditions as a result of natural and anthropogenic effects, to the consequences of climate changes, of the fragmentation and alteration of habitats and of direct human interference; study of symbiotic relations with particular reference to pathogenic mechanisms in antagonist symbiotic systems, to the evolutionary and phylogenetic aspects of symbiotic relations and to the application of symbionts for biocontrol;
- analysis of the consequences of climatic factors, of alterations in the structure of past and present natural habitats and of the transformations in zootechnical, agricultural and forestry practices on demography and the distribution of populations, the composition of communities and conservation of endangered species, in view of predicting, preventing and mitigating the consequences, even in socioeconomic terms, of environmental damage, and of the development of methods for the recovery of degraded environments or biocontrol of antieconomic species;
- study of land surface modelling processes and of the evolution of the territory with regard to the structural and lithological component, to climate control, to the anthropic component and to present and past biotic communities; Conservation of cultural and paleontological heritage and of the landscape; variations in geomorphological systems and subsequent changes in the environmental hazard and risk scenarios; study of the soil, of surface deposits and of the landscape as evidence of mutual conditioning between Man and the environment; environmental indicators of climate change and paleobiology of fossil populations;
- research on teaching methods adopted in secondary schools for subjects related to the Course.

| Academic disciplines | 01/A (Mathematics) |
|----------------------|---|
| | 02/C (Astronomy, Astrophysics, Earth and Planetary Physics) |
| | 02/B (Physics of Matter) |
| | 03/A (Analytical, Chemical-Physical) |
| | 03/B (Inorganic, Technological) |
| | 03/C (Organic, Industrial) |
| | 04/A (Geosciences) |
| | 05/A (Vegetal Biology) |
| | 05/B (Animal Biology And Anthropology) |
| | 05/C (Ecology) |
| | 05/D (Physiology) |
| | 05/E (Experimental and Clinical Biochemistry and Molecular |
| | Biology) |
| | 05/G (Experimental and Clinical Pharmacological Sciences) |



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| | 05/H (Human Anatomy and Histology) 05/I (Genetics and Microbiology) 06/M (Public Health) 07/A (Agricultural Economics and Rural Surveying) 07/B (Agricultural and Forestry Cultivation Systems) 07/C (Agricultural, Forestry and Biosystem Engineering) 07/D (Entomology and Plant Pathology) 07/E (Agricultural Chemistry and Genetics) 07/F (Food Technologies and Agricultural Microbiology) 07/G (Animal Sciences and Technologies) 07/H (Veterinary Medicine) 13/A (Economics) 13/D (Statistics and Mathematical Decisional Methods) 14/D (Applied Sociology) |
|----------------------------------|--|
| Duration | 3 years |
| Places available | 11 |
| Scholarships | 7 for the University of Milan, 1 financed by the Interdepartmental Centre of Applied Studies for the Sustainable Management and Defence of Mountains – GE.S.DI.MONT for the research programme "Naturalistic engineering in mountainous regions" to be held prevalently at the Edolo branch of the University of Milan. |
| Contact person of the PhD course | prof. Nicola Saino, ordinary professor in the scientific-disciplinary field BIO/07 |
| Admission criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 4 points university career (course examinations passed and final grade): maximum 6 points any publications: maximum 6 points any professional experience and other qualifications of the applicant: maximum 3 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to nicola.saino@unimi.it): |
|---|--|
| | applicant's University or other Universities supporting the |
| Date of evaluation of qualifications | 6th December 2013 |



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| Results | of | the | evaluation | of | Available | from | 9th | December | 2013 | at |
|--------------|----|-----|------------|----|--------------|------------|-----------|----------|------|----|
| qualificatio | ns | | | | http://www.d | dbs.unimi. | it/ecm/ho | ome. | | |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 11th December 2013 at 09.30 am at the Department of Biosciences - via Celoria, 26 - 20133 Milan. |
| | The interview will be held in Italian or in English, as preferred by the applicant. |
| | The diary of admission exams is official notice for the interested parties. |

PHD COURSE IN BIOCHEMICAL SCIENCES

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| Learning Objectives | The PhD course in Biochemical Sciences promotes training and research in the field of biochemical, biotechnological and clinical sciences applied to biological, agri-food, veterinary and medical sciences, to promote and maintain human health, improve industrial and agri-food production and, in a broad sense, solve problems that concern the wellbeing of both the individual and society. It is presented as an interdepartmental initiative designed to encourage cooperation and establish relations based on information exchange with high multidisciplinary standards even with Italian and international research institutions, and with advanced education institutions, and cooperation with the entrepreneurial productive system that has said interests in common. The principal objective of the PhD course is to achieve considerable international acknowledgement by involving foreign professors in structured research and training activities, by enrolling foreign doctorate students, by envisaging dissertations jointly organised by both universities, and by promoting study and research periods abroad for its own doctorate students. |
| Academic disciplines | 02/B (Physics of Matter) 05/E (Experimental ond Clinical Biochemistry and Molecular Biology) 05/F (Applied Biology) 05/I (Genetics and Microbiology) 06/A (Pathology and Laboratory Diagnostics) 06/B (General Clinical Medicine) 06/D (Specialised Clinical Medicine) 06/N (Healthcare Professions and Applied Medical Technologies) |
| Duration | 3 years |
| Places available | 9 |
| Scholarships | 5 for the University of Milan, 1 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for research centred on a priority Italian investigational framework "Human health (study and treatment of tumours and degenerative diseases through new approaches deriving from knowledge of the human genome)" |
| Contact person of the PhD course | prof. Sandro Sonnino, ordinary professor in the scientific-disciplinary field BIO/10 |
| Admission criteria | Qualifications obtained in one of the following subjects of former Ministerial Decree 270/2004, or in one of the corresponding subjects of former Ministerial Decree 509/99: LM-6 Biology, LM-7 Agricultural Biotechnology, LM-8 Industrial Biotechnology, |



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| | 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-41 Medicine and Surgery, LM-42 Veterinary Medicine, LM-46 Dentistry and Orthodontics, LM-47 Organisation and Management of Services for Sports and Motor Activities, LM-54 Chemical Sciences, LM-60 Natural Sciences, LM-61 Human Nutritional Science, LM-67 Science and Techniques of Preventive and Adapted Motor Activities, LM-68 Sports Sciences and Technologies, LM-70 Food Sciences And Technologies, LM-71 Science and Technology of Industrial Chemistry, LM-75 Environment and Territorial Science and Technology, LM-86 Zootechnical Sciences and Animal Technology, LM/SNT1 Nursing and Midwifery, LM/SNT2 Health Professions for Rehabilitation, LM/SNT3 Health Professions for Preventive Care. |
|-----------------------|--|
| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 4 points university career (course examinations passed and final grade): maximum 3 points any publications: maximum 3 points any professional experience and other qualifications possessed by the applicant: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to sandro.sonnino@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 6 points |
| Date of evaluation of qualifications | 5 th December 2013 |
| Results of the evaluation of qualifications | Available from 6th December 2013 at http://users.unimi.it/chbiomed/curriculum/sonnino/pagina inizio.htm and at the facilities in via F.lli Cervi, 93 – 20090 Segrate |



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| Stage two | |
| Examination diary | Interview: 16th December 2013 at 09.30 am at the Department of Medical Biotechnology and Translational Medicine - via Fratelli Cervi, 93 - 20090 Segrate (MILAN). |
| | The interview will be held in English. |
| | The diary of admission exams is official notice for the interested parties. |

PHD COURSE IN LITERATURE, ARTS AND ENVIRONMENTAL HERITAGE

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|----------------------------------|---|
| Learning Objectives | The PhD course in Literary, Artistic and Environmental Heritage Sciences is structured around two central ideas: the "text" (broadly considered as the product of an intentional creative action), its history and its success, the forms of its production and reception; and the "context," the overall historical and environmental circumstances in which the production of the text takes place. The new structure issues from experience developed during previous PhD courses in Classical Antiquity, History of Italian language and Literature, Cultural and Environmental Heritage Sciences, whose cultural contents typical of each converging sector (philology, literature and linguistics, history and classical antiquity, archaeology, history of art, of music and of performing arts, human environmental sciences), will be deeply understood, developed and reorganised in an extensive and harmonious multidisciplinary synthesis. |
| Academic disciplines | 10/A (Archaeological Science) 10/B (History of Art) 10/C (Music, Drama, Cinema, Television and Audiovisual Media) 10/D (Classical Antiquity Sciences) 10/E (Middle Latin and Romance Philologies and Literatures) 10/F (Italian Studies and Comparative Literature) 10/G (Glottology and Linguistics) 10/N (Eastern Cultures) 11/A (Historical Disciplines) 11/B (Geography) 11/C (Philosophy) 11/E (Psychology) |
| Duration | 3 years |
| Places available | 11 |
| Scholarships | 7 for the University of Milan, |
| Contact person of the PhD course | prof. Gianfranco Fiaccadori, ordinary professor in the scientific-disciplinary field L-ANT/08 |
| Admission criteria | Qualifications obtained in one of the following subjects of former Ministerial Decree 270/2004, or in one of the corresponding subjects of former Ministerial Decree 509/99: LM-2 Archaeology, LM-3 Landscape Architecture, LM-4 Architecture and Building Engineering, LM-5 Archive-Keeping and Librarianship, LM-10 Conservation of Architectural and Environmental Heritage, LM-11 Cultural Heritage Conservation Sciences, LM-12 Design, LM-14 Modern Philology, |



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| | LM-15 Philology, Literatures and History of Classical Antiquity, |
|-----------------------|--|
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| | LM-19 Information and Editorial Systems, |
| | LM-36 Languages and Literatures of Africa and Asia, |
| | LM-37 Modern European and American Languages and Literatures, |
| | LM-38 Modern Languages for International |
| | Communication and Cooperation, |
| | LM-39 Linguistics, |
| | LM-45 Musicology and Musical Heritage, |
| | LM-48 Territorial Urban and Environmental Planning, |
| | LM-49 Design and Management of Tourist Systems, |
| | LM-50 Programming and Management of Educational |
| | Services, |
| | LM-51 Psychology, |
| | LM-65 Performance Arts and Multimedia Production Sciences, |
| | LM-78 Philosophical Sciences, |
| | LM-80 Geographical Sciences, |
| | LM-84 Historical Sciences, |
| | LM-89 History of Art, |
| | LM-94 Specialised Translation and Interpreting. |
| Distribution of marks | Titles: maximum 20 points |
| | Examinations: maximum 40 points |
| | Examinations: maximum 40 points |

| Stage one | |
|---|---|
| Evaluation of qualifications | - dissertation, even with an abstract in English: maximum 3 points |
| Qualifications must be provided following the indications mentioned in art. 3 of this document. | university career (course examinations passed and final grade): maximum 3 points any publications: maximum 3 points any professional experience and other qualifications possessed by the applicant: maximum 2 points |
| Qualifications and scientific publications can be written in Italian, in English or in one of the consentaneous languages of the reference subject. | two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to gianfranco.fiaccadori@unimi.it): maximum 1 mark a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 8 points |
| Date of evaluation of qualifications | 9 th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 at http://www.bac.unimi.it . |



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Examination diary

Written examination: 11th December 2013 at 09.30 am at the Department of Cultural and Environmental Heritage - via Noto, 6 - 20141 Milan.

The paper, written as a concise presentation of the assigned topic or even a translation from Greek and Latin texts will centre on the following topics:

- history of medieval, modern and contemporary art;
- conservation, protection and restoration and history and criticism of the arts;
- musicology and ethnomusicology;
- analysis and comment of an Italian literary text from a critical-literary or historical-linguistic perspective;
- ancient history, epigraphy and numismatics;
- classical, Christian and medieval archaeology;
- glottology and linguistics;
- indology;
- human geography, history of geography, settlement problems;
- film studies;
- performance arts.

The dictionary is allowed for translations from Greek and from Latin.

Oral examination: 17th December 2013 at 09.30 am at the Department of Cultural and Environmental Heritage - via Noto, 6 - 20141 Milan.

The interview will be held in Italian or in English, as preferred by the applicant.

The diary of admission exams is official notice for the interested parties.

PHD COURSE IN NUTRITIONAL SCIENCES

| Learning Objectives | The PhD course in Nutritional Science promotes integrated multidisciplinary and translational training to face themes and problems regarding physiological and pathological processes during the entire life cycle, from conception and pregnancy to geriatrics, with special reference to chronic-degenerative diseases that are currently most common, such as tumours, cardiovascular and neurological diseases related to lifestyle and, particularly, to nutrition. The PhD course will also provide in-depth knowledge of animal nutrition and food safety with special reference to innovative nutritional strategies studied 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) 05/L (Physical Exercise and Sports Sciences) 05/L (Pathology and Laboratory Diagnostics) 06/A (Pathology and Laboratory Diagnostics) 06/B (General Clinical Medicine) 06/C (General Clinical Surgery) 06/D (Specialised Clinical Medicine) 06/E (Specialised Clinical Surgery) 06/F (Integrated Clinical Surgery) 06/G (Clinical Paediatrics) 06/H (Clinical Gynaecology) 06/M (Public Health) 06/N (Healthcare Professions and Applied Medical Technologies) 07/B (Agricultural and Forest Cultivation Systems) 07/D (Entomology and Plant Pathology) 07/E (Agricultural Chemistry and Genetics) 07/G (Animal Sciences and Technologies) 07/H (Veterinary Medicine) 11/E (Psychology) |
| Duration | 3 years |
| Places available | 10 |
| Scholarships | 7 for the University of Milan, |
| Contact person of the PhD course | prof. Gian Vincenzo Zuccotti, adjunct professor in the scientific-disciplinary field MED/38 |
| Curricula | Nutrition and lifestyles in health or disease in the various phases of the life cycle. Multidisciplinary approach to the study of metabolic routes that are sensitive to nutrients. Animal nutrition, food safety and impact on human health |
| Admission criteria | Qualifications obtained in one of the following subjects of |



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| | former Ministerial Decree 270/2004, or in one of the corresponding subjects of former 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-21 Biomedical Engineering, LM-41 Medicine and Surgery, LM-42 Veterinary Medicine, LM-51 Psychology, LM-54 Chemical Sciences, LM-55 Cognitive Sciences, LM-57 Adult Education and Continuous Learning Sciences, LM-61 Human Nutritional Science, LM-67 Sciences and Techniques of Preventive and Adapted Physical Activities, LM-68 Sports Sciences and Technologies, LM-70 Food Sciences and Technologies, LM-71 Industrial Chemistry Technologies and Sciences, LM-86 Zootechnical Sciences and Animal Technologies, LM/SNT1 Nursing and Midwifery, LM/SNT2 Health Professions for Rehabilitation, LM/SNT3 Health Professions for Technical Assistance, LM/SNT4 Health Professions for Preventive Care |
|-----------------------|---|
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Stage one | | |
|---|--|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | points - university career (course grade): maximum 5 point | n abstract in English: maximum 5 e examinations passed and final s valuated as specified below: |
| | Graduation mar 110 and honour from 107 to 110 from 102 to 100 from 98 to 101 up to 97 | 5) 4 |
| | possessed by the applica | rience and other qualifications |



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| Results of the evaluation of qualifications | Available from 11th December 2013 at http://www.dibic.unimi.it . |
|---|--|
| Date of evaluation of qualifications | 10 th December 2013 |
| | applicant's University or other Universities supporting the application (to be sent to gianvincenzo.zuccotti@unimi.it): maximum 4 points; a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 10 points |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 12th December 2013 at 10.00 am at the "L. Sacco" Department of Biomedical and Clinical Sciences (classroom with 40 seats - first floor) - via G.B. Grassi, 74 - 20157 Milan. |
| | The interview will be held in Italian or in English, as preferred by the applicant. |
| | The diary of admission exams is official notice for the interested parties. |

PHD COURSE IN EARTH SCIENCES

| Learning Objectives | The PhD Course in Earth Sciences aims to conscielly train |
|----------------------|--|
| Learning Objectives | The PhD Course in Earth Sciences aims to especially train young researchers to autonomously investigate a broad range of geoscience disciplines. The course is particularly designed to provide advanced specialised preparation (1) in basic, applied and theoretical research on problems related to the structure, composition, evolution and dynamics of the Earth; (2) in characterisation and modelling of the Earth System, and (3) in basic and applied research on the use of the territory, natural risks, energy and water resources, geomaterials, prospecting for minerals. The geological perspective of the overall function of the Earth System includes research centred on the processes at work both on the surface and inside the Earth, on their impact on ecosystems and human activities and, conversely, the short and long-term consequences of human activity on the environment. The complex interactions between geosphere, biosphere, atmosphere and hydrosphere are stored in the geological record, which can be decoded to: a) trace the development and evolution of our planet by combining experimental observations and models; b) define the natural resources (oil, gas, mineral raw materials, water), their use and sustainable exploitation; c) evaluate the geological risks (e.g., earthquakes, volcanic eruptions, floods, landslides); d) design geological engineering works and infrastructures; e) implement environmental reclamation technologies; f) develop the exploitation of raw materials for industrial applications; g) preserve and make the most of our cultural geo-paleontological heritage; h) evaluate forensic applications. The learning programme is organised to meet teaching and research requirements related to the broad spectrum of geosciences. The research themes developed during the PhD Course in Earth Sciences are highly topical with extensive international relevance, as proven by the close cooperation in progress with some of the leading international research institutions. Special importance is given to train researchers to |
| | activities focused on integrating individual preparation. |
| Academic disciplines | 04/A (Geosciences) 08/A (Infrastructural and territorial engineering) |
| Duration | 3 years |
| Places available | 8 |

| Scholarships | 5 for the University of Milan, |
|----------------------------------|---|
| Contact person of the PhD course | prof. Elisabetta Erba, ordinary professor in the scientific- disciplinary field GEO/01 |
| Admission criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 2 points university career (course examinations passed and final grade): maximum 8 points any publications: maximum 5 points any professional experience and other qualifications possessed by the applicant: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to elisabetta.erba@unimi.it): maximum 3 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 10 points |
| Date of evaluation of qualifications | 5 th December 2013 |
| Results of the evaluation of qualifications | Available from 6th December 2013 at http://users.unimi.it/sdtab/sdt.html . |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 16th December 2013 at 10.00 am at the "A. Desio" Department of Earth Sciences (Meeting rooms - third floor) - via Mangiagalli, 34 - 20133 Milan. |
| | The interview will be held in Italian or in English, as preferred by the applicant. |
| | The diary of admission exams is official notice for the interested parties. |

PHD COURSE IN PHARMACEUTICAL SCIENCES

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| Learning Objectives | The PhD Course 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 especially providing advanced knowledge in the pharmaceutical sector, both methodological and in terms of cultural and scientific contents, consists of a theoretical section and one of intensive research activities, both centred on design, synthesis, development and control of new biologically active compounds, of new pharmaceutical forms, of special foods, of cosmetics, of biocides, of medical devices, typical themes of the scientific-disciplinary fields involved in the PhD course. The scientific sectos can be summarised as specified below: - 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 of dietary products - Fermentation biotechnology and chemistry - Synthesis, special techniques and chemical-physical characterisation of products with high biological activity - Medicinal plants and active ingredients of vegetal origin - Statistical methods for experimental data processing in the chemical analysis laboratory. |
| Academic disciplines | 03/A (Analytical, chemical-physical) 03/B (Inorganic, technological) 03/C (Organic, industrial) 03/D (Pharmaceutical, technological, nutritional) 05/A (Vegetal biology) |
| Duration | 3 years |
| Places available | 7 |
| Scholarships | 4 for the University of Milan, 1 with funds provided by the Progetto Giovani 2012 (2012 Youth Project), reserved for research centred on a priority Italian investigational framework "Relaunching the pharmaceutical industry also through fine chemistry of natural compounds for new diagnostic applications and new active ingredients" |
| Contact person of the PhD course | prof. Marina Carini, ordinary professor in the scientific- disciplinary field CHIM/08 |
| Admission criteria | Qualifications obtained in one of the following subjects of former Ministerial Decree 270/2004, or in one of the corresponding subjects of former Ministerial Decree 509/99: LM-6 Biology, LM-8 Industrial Biotechnology, LM-9 Medical, Veterinary and Pharmaceutical |



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| | Biotechnology, LM-13 Pharmacy and Industrial Pharmacy, LM-22 Chemical Engineering, LM-54 Chemical Sciences, LM-70 Food Sciences and Technologies, LM-71 Industrial Chemistry Sciences and Technologies. |
|-----------------------|---|
| Distribution of marks | Titles: maximum 30 marks Interview: maximum 30 marks |

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| Stage one | |
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 5 marks university career (course examinations passed and final grade): maximum 17 marks any publications: publications that at the time of the submission of the application have been printed or accepted for publication in journals reviewed by the 'Institute of Scientific Information (ISI): maximum 2 points any professional experience and other qualifications possessed by the applicant: maximum 4 points. This category considers the following: papers sent for publication; conference presentations; adequately documented work and/or research experiences in the chemical/pharmaceutical/biotechnological framework two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to marina.carini@unimi.it): maximum 1 point a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 1 point. |
| Date of evaluation of qualifications | 6 th December 2013 |
| Results of the evaluation of qualifications | Available from 6th December 2013 at http://www.disfarm.unimi.it/ecm/home/didattica/dottorati/scienze-farmaceutiche . |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 12th December 2013 at 01.30 pm at the Department of Pharmaceutical Sciences (Meeting rooms - first floor) - via Mangiagalli, 25 - 20133 Milan. |
| | The interview will be held in Italian or in English, as preferred by the applicant. |
| | The diary of admission exams is official notice for the |

interested parties.

PHD COURSE IN EXPERIMENTAL AND CLINICAL PHARMACOLOGICAL SCIENCES

| Learning Objectives | The PhD course, which ranks as university level third stage, makes the most of the multidisciplinary knowledge of the Faculty Committee to train expert pharmacologists in the most modern applicational aspects of pharmacology. Said features include the following: the physiopathological |
|----------------------------------|---|
| | and biomolecular investigational bases for research centred on finding therapeutic tools that are highly specific for the single diseases and for the individual patients; the investigational tools required to study the mechanism of action, the pharmacological/therapeutic effects and the undesirable or potentially toxic aspects of active compounds, even of vegetal origin (pharmacognosy); innovative technologies with high qualitative and quantitative standards in the development, preclinical evaluation and clinical use of drugs; toxicological expertise to identify potential adverse effects of active ingredients in the preclinical and clinical phases of a study, including the definition of criteria to protect health against hazards resulting from direct intake (e.g., medications, food additives) or indirect intake (e.g., environmental pollutants, industrial solvents) of chemical, physical and biological agents. Concluding, students will develop a "pharmacological" culture that can be applied to both academic and industrial research that allows effective translational transfer "from bench to bed" with a multidisciplinary approach that is essential for public health. |
| Academic disciplines | 05/G (Experimental and Clinical Pharmacological Sciences) |
| Duration | 3 years |
| Places available | 14 |
| Scholarships | 8 for the University of Milan, 2 with funds provided by the Progetto Giovani 2012 (2012 Youth Project), reserved for research centred on a priority Italian investigational framework "Human health (study and treatment of tumours and degenerative diseases with new approaches resulting from knowledge of the human genoma)," and "Relaunch of the pharmaceutical industry also through the fine chemistry of natural compounds for new diagnostic applications and new active ingredients" |
| Contact person of the PhD course | prof. Alberto Panerai, ordinary professor in the scientific- disciplinary field BIO/14 |
| Admission criteria | Qualifications obtained in one of the following subjects of former Ministerial Decree 270/2004, or in one of the corresponding subjects of former Ministerial Decree 509/99: LM-6 Biology, |



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| | LM-7 Agricultural Biotechnology, LM-8 Industrial Biotechnology, LM-9 Medical, Veterinary and Pharmaceutical Biotechnology, LM-13 Pharmacy and Industrial Pharmacy, LM-41 Medicine and Surgery, LM-61 Human Nutritional Science, LM-70 Food Sciences and Technologies. |
|-----------------------|---|
| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points |

| Stage one | |
|---|--|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 4 points university career (course examinations passed and final grade): maximum 4 points any publications: maximum 5 points any professional experience and other qualifications possessed by the applicant: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to alberto.panerai@unimi.it): maximum 1 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 4 points |
| Date of evaluation of qualifications | 6 th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 at http://users2.unimi.it/scuolascifarm/ . |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 11th December 2013 at 09.30 am at the Department of Pharmacological and Biomolecular Sciences - via Vanvitelli, 32 - 20133 Milan. The interview will be held in Italian or in English, as preferred by the applicant. |
| | The diary of admission exams is official notice for the interested parties. |

PHD COURSE IN NATIONAL AND INTERNATIONAL LEGAL STUDIES

| Language Oblance | The DLD as an in the Orally in the Control of |
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| Learning Objectives | The PhD course in Law Studies is an institutional venue for scientific and cultural debate designed to promote integration of a wide range of legal specialisations. Its principal objective is to adequately structure and interweave teaching activities and research-centred training of doctorate students with special focus on research methods and on the international and interdisciplinary evolution of law. The decision to propose a combined PhD course for all legal studies issues from past experience. On the one hand, unitariness has allowed to organise cycles of common professor-centred classes on transversal topics of the utmost interest, also involving highly authoritative external experts. On the other hand, focus on interdisciplinary themes allows to meet the important need of doctorate students to have up-to-date knowledge of the subject, considering the professional orientation of the training provided. Moreover, this approach offers the opportunity, which must not be missed, to promote international joint-tutorship for dissertations on borderline themes with interference between research, whose circularity cannot be established in advance, and all the disciplines of law sciences. The aims of the course include promoting institutional cooperation and exchange with leading international research centres. |
| Academic disciplines | 12/A (Private law) 12/B (Commercial, maritime and labour law) 12/C (Constitutional and ecclesiastical law) 12/D (Administrative and tax law) 12/E (International, European Union, comparative, financial market law) 12/F (Civil procedure law) 12/G (Criminal law and procedure) 12/H (Roman law, history of medieval and modern law, and philosophy of law) 14/C (Sociology) |
| Duration | 3 years |
| Places available | 28, of which 1 only reserved for foreign scholarships |
| Scholarships | 25 for the University of Milan, 1 funded by the Italian Institute for Insurance against Industrial Accidents (Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro - INAIL) |
| Contact person of the PhD course | prof. Maria Gigliola Di Renzo, ordinary professor in the scientific-disciplinary field IUS/19 |
| Curricula | Constitutional and Administrative Law Private Law and Procedure Law and Business International and European law Criminal Law and Procedure |



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| | Legal Philosophy and Law & Society Legal history and Religious Law: from Antiquity to the Present |
|-----------------------|--|
| Admission criteria | Qualifications obtained in one of the following subjects of former Ministerial Decree 270/2004, or in one of the corresponding subjects of former Ministerial Decree 509/99: LM-38 Modern Languages for International Communication and Cooperation, LM-52 International Relations, LM-62 Political Sciences, LM-78 Philosophical Sciences, LM-81 Sciences for Cooperation Towards Development, LM-87 Social Work and Social Policies, LM-88 Sociology and Social Research, LM-90 European Studies, LMG/01 Jurisprudence. |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |

| Stage one | |
|---|---|
| Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 10 points university career (course examinations passed and final grade): maximum 7 points any publications: maximum 4 points any professional experience and other qualifications possessed by the applicant: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to gigliola.direnzovillata@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 5 points |
| Date of evaluation of qualifications | 9 th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 at http://scienzegiuridichephd.ariel.ctu.unimi.it/v3/home/PreviewArea.aspx or http://www.dpsd.unimi.it/ecm/home . |

| Stage two | |
|-------------------|--|
| Examination diary | Interview: Starting from 10th December 2013 at the University of Milan - via Festa del Perdono, 7 - 20121 Milan. |
| | The detailed schedule of oral examinations will be published on the websites |



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> http://scienzegiuridichephd.ariel.ctu.unimi.it/v3/home/PreviewAre a.aspx and http://www.dpsd.unimi.it/ecm/home after titles presented by applicants have been evaluated.

> The interview will be held in Italian, English, French or Spanish, as preferred by the applicant.

The diary of admission exams is official notice for the interested parties.

PHD COURSE IN MATHEMATICAL SCIENCES

| Learning Objectives | The aim of the PhD Course in Mathematical Sciences is to |
|----------------------------------|---|
| Learning Objectives | provide doctorate students with the research techniques and methods typical of the sectors of contemporary Mathematics and its applications, both qualitative and quantitative, to obtain the wide ranging scientific and cultural autonomy required to produce original and significant results. The Course will produce experts who are skilled in exploiting the potential of mathematical tools and methods and of statistics to face the intrinsic complexity of problems placed by Applied Sciences and the Industry. The syllabus envisages, for the first year, indepth learning principally with attendance of lessons and highly qualified workshops held by scholars chosen from the international Committee of Professors in order to offer students the opportunity to establish direct contact with the international scientific community. Each doctorate student will follow a "personal" training track under the guidance of a Tutor. Subsequently, released from the mandatory attendance of courses or examinations, the doctorate students will develop the chosen research project. Since the PhD dissertation constitutes the testing grounds to evaluate the skills and autonomy developed, it has been decided that a three-year PhD course must dedicate considerable effort and attention to the same. |
| Academic disciplines | 01/A (Mathematics) 01/B (Computer Science) 09/H (Computer Engineering) 11/C (Philosophy) 13/D (Statistics and Mathematical Methods for Decisions) |
| Duration | 3 years |
| Places available | 12 |
| Scholarships | 9 for the University of Milan, 2 with funds provided by the Progetto Giovani 2012 (2012 Youth Project), reserved for research centred on a priority Italian investigational framework "Computer Science" 1 funded by RSE S.p.A. for the research programme "Development of models and algorithms for simulation and analysis of the scenario of electric power markets." |
| Contact person of the PhD course | prof. Giovanni Naldi, ordinary professor in the scientific- disciplinary field MAT/08 |
| Curricula | Algebra, theory of numbers, logic and history of mathematics Geometry (algebraic, complex, differential) and topology Analysis (functional, harmonic, complex) and differential equations with partial derivatives Mathematical physics, dynamic systems and |



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| | biomathematics 5. Probability, statistics, mathematical finance and operational research 6. Numerical calculus, scientific calculus and mathematical models 7. Mathematical aspects of computational sciences and technology |
|-----------------------|--|
| Admission criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 5 points academic career (course examinations passed and final grade of both the bachelor's degree and the two year specialisation course (magistrale)): maximum 3 points any publications: maximum 2 points any professional experience and other qualifications possessed by the applicant: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to giovanni.naldi@unimi.it): maximum 4 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 4 points |
| Date of evaluation of qualifications | 5 th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 at http://www.mat.unimi.it/dottorati |

| Stage two | |
|-------------------|--|
| Examination diary | Interview: 12th December 2013 at 09.30 am at the "F. Enriques" Department of Mathematics - via Saldini, 50 - 20133 Milan. The interview will be held in Italian or in English, as preferred by the applicant. |
| | The diary of admission exams is official notice for the interested parties. |

PHD COURSE IN ORAL SCIENCES

| Learning Objectives | - Detailed study of the pathogenesis of oral diseases and |
|----------------------|---|
| Learning Objectives | Detailed study of the parnogenesis of oral diseases and their diagnostic markers Study of oral microbiota, identification of microbial pathogenic species with molecular biology diagnostic techniques Evaluation of new biomaterials, dental implant systems, bone replacements, prosthetic surfaces, and definition of non-invasive techniques to monitor bone integration. In vitro and in vivo studies on the properties and biological effects of platelet concentrates Evaluation of risk factors in oral diseases with modern molecular biology and genetic techniques to identify the predictive genotype patterns. Organisation of clinical trials to validate new surgical procedures. Definition of epidemiological methods to evaluate the prevalence and incidence of oral diseases and the efficacy of preventive programmes Definition of population-centred behavioural study procedures to analyse lifestyle habits (smoking, nutrition) Study of masticatory biomechanics through electromiography and correlation with temporomandibular joint function Definition of an evaluation procedure for patients submitted to implant-prosthetic rehabilitation involving various specialist competencies (implantology, orthodontics, prostheses, plastic and maxillofacial surgery) Definition of management guidelines for the complications of maxillary sinus lift. |
| Academic disciplines | 02/B (Physics of Matter) 05/D (Physiology) 05/E (Experimental and Clinical Biochemistry and Molecular Biology) 05/F (Applied Biology) 05/F (Applied Biology) 05/G (Experimental and Clinical Pharmacological Sciences) 05/H (Human Anatomy and Histology) 06/A (Pathology and Laboratory Diagnostics) 06/B (General Clinical Medicine) 06/D (Specialised Clinical Medicine) 06/E (Specialised Clinical Surgery) 06/F (Integrated Clinical Surgery) 06/I (Clinical Radiology) 06/L (Clinical Anaesthesiology) 06/M (Public Health) 11/E (Psychology) |
| Duration | 3 years |
| Places available | 7 |
| Scholarships | 5 for the University of Milan |

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| Contact person of the PhD course | prof. Roberto Weinstein, ordinary professor in the scientific-disciplinary field MED/28 |
|----------------------------------|---|
| Admission criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points |

| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | - dissertation, even with an abstract in English: maximum 3 points - university career (course examinations passed and final grade): maximum 4 points The graduation Points mark is evaluated as specified below: Graduation mark 110 and honours 4 110 3 from 105 to 109 2 from 99 to 104 1 - any publications: maximum 2 points |
| Date of evaluation of qualifications Results of the evaluation of | any professional experience and other qualifications possessed by the applicant: maximum 1 mark two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to roberto.weinstein@unimi.it): maximum 1 mark a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 9 points 5th December 2013 Available from 9th December 2013 at |
| qualifications | http://www.disbioc.unimi.it/ecm/home. |

| Stage two | |
|-------------------|--|
| Examination diary | Interview: 11th December 2013 at 09.00 am at the Galeazzi Institute for Research Hospitalisation and Healthcare (IRCCS) - (Main Hall) - via R. Galeazzi, 4 – 20161 Milan. The interview will be held in Italian or in English, as preferred by the applicant. |

| The diary of admission exams is official notice for the interested parties. |
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PHD COURSE IN FOOD SYSTEMS

| Learning Objectives | The aim of learning activities proposed by this PhD Course is to prepare doctors and scholars, specialists in the nutritional sector, with international standard methodological know-how, autonomy and specific skills in scientific research dedicated to food systems. With these learning objectives, the PhD Course in Food Systems envisages many research frameworks that are not independent but mutually interconnected, and which can be basically defined as specified below: 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. |
|----------------------------------|--|
| 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 Technologies and Agricultural Microbiology) |
| Duration | 3 years |
| Places available | 12 |
| Scholarships | 7 for the University of Milan, 1 with funds provided by the Progetto Giovani 2012 (2012 Youth Project), reserved for research centred on a priority Italian investigational framework "Optimisation of typical agri-food products and of food safety through new characterisation and quality assurance systems" |
| Contact person of the PhD course | prof. Francesco Bonomi, ordinary professor in the scientific-disciplinary field BIO/10 |
| Curricula | Chemistry and Biochemistry Agri-Environment Food Science and Nutrition |
| Admission criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |



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| Stage one | |
|---|--|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 2 points university career (course examinations passed and final grade): maximum 5 points any publications: maximum 3 points any professional experience and other qualifications possessed by the applicant: maximum 3 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to francesco.bonomi@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 15 points |
| Date of evaluation of qualifications | 6 th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 at http://www.defens.unimi.it . |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 16th December 2013 at 10.00 am at the Department of Food Sciences, Nutrition and Environment - via Celoria, 2 – 20133 Milan. |
| | The interview will be held in English. |
| | The diary of admission exams is official notice for the interested parties. |

PHD COURSE IN VETERINARY AND ANIMAL SCIENCE

| | I - |
|----------------------------------|---|
| Learning Objectives | The learning objectives of this PhD Course are specified below: 1.coordinate university level third stage learning activities for all disciplines related to Veterinary Sciences and Animal Productions; 2.provide the opportunity for scientific and cultural development of young graduates in disciplines that belong to this sector by developing advanced research programmes and providing highly specialised teaching programmes; 3. use the intensive network of currently active collaborations and agreements between the Proposing professors and the production and entrepreneurial system that operates in the above sectors; 4. exploit the many active partnerships with other Italian and international research institutions that are highly advanced and acknowledged in their respective fields of competence, and use the increased critical mass and multidisciplinary features to encourage the development of new and more organic partnerships; 5. pursue all initiatives designed to develop internationalisation by involving foreign professors and students in the organised research and training activities. |
| 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) |
| Duration | 3 years |
| Places available | 18 |
| Scholarships | 14 for the University of Milan, 1 with funds provided by Progetto Giovani 2012 (2012 Youth Project), reserved for research centred on a priority Italian investigational framework "Optimisation of typical agri-food products and of food safety through new characterisation and quality assurance systems" |
| Contact person of the PhD course | prof. Fulvio Gandolfi, ordinary professor in the scientific-disciplinary field VET/01 |
| Admission criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 20 points Interview: maximum 40 points |



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| Stage one | |
|---|---|
| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 5 points university career (course examinations passed and final grade): maximum 3 points any publications: maximum 2 points any professional experience and other qualifications possessed by the applicant: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to fulvio.gandolfi@unimi.it): maximum 1 mark a research project written by the applicant, which does not |
| | constitute any obligation to the subsequent choice of the dissertation topic: maximum 7 points |
| Date of evaluation of qualifications | 5 th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 at http://www.veterinaria.unimi.it |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 13th December 2013 at 09.00 am at the Hall of the former Dean's Office, School of Veterinary Medicine - via Celoria, 10 - 20133 Milan. |
| | The interview will be held in Italian or in English, as preferred by the applicant. |
| | The diary of admission exams is official notice for the interested parties. |

PHD COURSE IN HISTORY, CULTURE, SOCIAL AND INSTITUTIONAL THEORIES

| Learning Objectives | This PhD course centres on the historical background of society, culture and institutions, considered in all its complexity and articulated 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 PhD course lessons is to develop the capacity of doctorate student to carry out high standard historical research. To achieve this goal, it is deemed essential to offer them the material and instruments required to autonomously define an investigational method. Said activity is designed to strengthen the critical sensitivity of doctorate students to enable them to learn the characteristics and unfolding of events and ideas with all their particular traits, ideal formulations, factual expressions, and to provide in-depth knowledge of the dedicated tools that are useful for said purpose. Along with a rigorous method, doctorate students will also acquire dedicated competencies and know-how, with the assistance of professors assigned to this PhD course. In this field, the interests of members of the Faculty Committee range from the multiple facets of historical and institutional issues to archive-keeping, paleography, bibliography and publishing, from historical methodology to economic history, from religious history to the history of thought. |
|----------------------------------|---|
| Academic disciplines | 10/A (Archaeological Sciences) 11/A (Historical Disciplines) 13/C (History of Economy) 14/C (History of Politics) |
| Duration | 3 years |
| Places available | 4 |
| Scholarships | 4 for the University of Milan, |
| Contact person of the PhD course | prof. Grado Giovanni Merlo, ordinary professor in the scientific-disciplinary field M-STO/07 |
| Admission criteria | All the two year specialisation courses (magistrale) |
| Distribution of marks | Titles: maximum 30 points Interview: maximum 30 points |



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| Evaluation of qualifications Qualifications must be provided following the indications mentioned in art. 3 of this document. | dissertation, even with an abstract in English: maximum 10 points university career (course examinations passed and final grade): maximum 4 points any publications: maximum 4 points any professional experience and other qualifications possessed by the applicant: maximum 2 points two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to grado.merlo@unimi.it): maximum 2 points a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 8 points |
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| Date of evaluation of qualifications | 9 th December 2013 |
| Results of the evaluation of qualifications | Available from 11th December 2013 at http://www.studistorici.unimi.it . |

| Stage two | |
|-------------------|---|
| Examination diary | Interview: 17th December 2013 at 09.30 am at the Department of Historical Studies - via Festa del Perdono, 7 - 20122 Milan. |
| | The diary of admission exams is official notice for the interested parties. |



PHD COURSE IN LINGUISTIC, LITERARY AND INTERCULTURAL STUDIES IN EUROPEAN AND EXTRA-EUROPEAN PERSPECTIVES

| Learning Objectives | The DhD Course which replicates a university level third |
|----------------------------------|--|
| Learning Objectives | The PhD Course, which ranks as a university level third stage, promotes high standard training to carry out research on a broad spectrum of languages, literatures and cultures that concern several geographical areas (Europe, Africa, the Americas, Asia), and on correlated interlinguistic and intercultural phenomena. Besides basic methodological training, the learning objectives of each of the disciplines concerned are organised by research area and according to geographical and socio-cultural criteria. Hence, the doctorate students will first complete the learning activities of their area in detail through dedicated tailor-made lessons and workshops designed to encourage the commencement of 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 PhD Course. Training also includes learning to use analytical IT tools, which are extensively exploited in the international framework. The final outcome of this learning track will be an international scholar in the best sense of the definition, a person who is 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. |
| Academic disciplines | 10/E (Philology and Middle Latin and Romance Literature) 10/F (Italian Studies and Comparative Literature) 10/G (Glottology and Linguistics) 10/H (French Studies) 10/I (Spanish Studies) 10/L (Anglistics and Anglo-American Studies) 10/M (Germanic and Slavonic Languages, Literature and Cultures) 10/N (Eastern Cultures) 11/A (Historical Disciplines) 11/B (Geography) 11/E (Psychology) 13/C (History Of Economy) 14/C (Sociology) |
| Duration | 3 years |
| Places available | 10 |
| Scholarships | 7 for the University of Milan, |
| Contact person of the PhD course | prof. Alessandro Costazza, ordinary professor in the scientific-disciplinary field L-LIN/13 |
| Admission criteria | Qualifications obtained in one of the following subjects of former Ministerial Decree 270/2004, or in one of the |



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| | corresponding subjects of former Ministerial Decree 509/99: LM-14 Modern Philology, LM-36 Languages and Literatures of Africa and Asia, LM-37 Modern European and American Languages and Literatures, LM-38 Modern Languages for International Communication and Cooperation, LM-39 Linguistics, LM-94 Specialised Translation and Interpreting, |
|-----------------------|--|
| Distribution of marks | Titles: maximum 20 points Examinations: maximum 40 points |

| Stage one | |
|--|---|
| Evaluation of qualifications | - dissertation, even with an abstract in English: maximum 5 points |
| Qualifications must be provided following the indications mentioned in art. 3 of this document. | university career (course examinations passed and final grade): maximum 5 points any publications: maximum 2 points any professional experience and other qualifications possessed by the applicant: maximum 2 points |
| Qualifications and scientific publications can be produced in Italian, English or in one of the languages studied. | two letters of reference written by lecturers from the applicant's University or other Universities supporting the application (to be sent to alessandro.costazza@unimi.it): maximum 1 mark a research project written by the applicant, which does not constitute any obligation to the subsequent choice of the dissertation topic: maximum 5 points |
| Date of evaluation of qualifications | 6 th December 2013 |
| Results of the evaluation of qualifications | Available from 9th December 2013 at http://www.lingue.unimi.it |

| Stage two | |
|-------------------|---|
| Examination diary | Written examination: 10th December 2013 at 02.00 pm at the Department of Linguistic Mediation Sciences and intercultural studies – Piazza I. Montanelli, 1 - 20099 Sesto S. Giovanni (MILAN). |
| | The written examination consists of a paper written in Italian (or in English or in the applicant's language of specialisation) on a topic proposed by the Commission. The applicant will add, at the bottom of the paper, an abstract in the language of specialisation (for foreign students who write in a language other than Italian, the abstract must be in Italian). Besides the contents, the evaluation of the paper will also consider |



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the applicant's linguistic skills in both Italian and a foreign language, and the capacity to organise the discussion consistently and clearly.

Oral examination: **16th December 2013** at **09.00 am** at the Department of Linguistic Mediation Sciences and Intercultural Studies – Piazza I. Montanelli, 1 - 20099 Sesto S. Giovanni (MILAN).

The oral examination will be held in Italian but there will also be a test to verify fluency in English and in the language of specialisation. For foreign students, the interview can be held in English or in another language of specialisation, but there will also be a test to verify fluency in Italian.

The diary of admission exams is official notice for the interested parties.