

Decree Index no. 1757 Prot. no. 21241
Date 16th April 2015
Title III Class 6
UOR SDR

POLITECNICO DI MILANO



**Published on the website of the
Politecnico di Milano, the website of the
Ministry and on Euraxess
CLOSING DATE: 29/05/2015**

Having regard to Law No. 168 dated 9.5.1989;
Having regard to D.P.C.M. 30.4.1997 and subsequent amendments;
Having regard to Law No. 240 dated 30.12.2010;
Having regard to the MIUR Decree "Regulations containing the procedures for accreditation of PhD venues and programmes and criteria for the establishment of PhD programmes by accredited bodies" No. 45 dated 08/02/2013;
Having regard to the Ministerial Decree of the Ministry of Education, Universities and Research (MIUR) No. 646 dated 19/08/2014 which indicates the PhD programmes for which accreditation is granted to the Politecnico di Milano;
Having regard to the Politecnico di Milano PhD Regulations issued with R.D. No. 1769 dated 18/06/2013 and subsequent amendments;
Having regard to the resolution of the Academic Senate on 23/02/2015;
Having regard to the resolution of the Board of Governors on 24/02/2015;

HEREBY DECREES:

**Art. 1
(Establishment)**

A competition is hereby announced for admission to the 31st cycle of PhD programmes at the Politecnico di Milano.

This call specifies, for each PhD programme, the positions assigned by competition and the number of scholarships available.

Further positions and scholarships may become available prior to the evaluation phase and up to its completion, without prejudice to the closing date for applications and for delivery of the corresponding documents, as laid down in art. 3 below.

For the purpose of activating a PhD programme, the minimum number of PhD students cannot be less than three.

The call is open to Italian and foreign students. Stateless students are viewed as foreign students.

Admission to the programmes will be based on the evaluation of the applicant's academic curriculum and academic qualifications, the applicant's letter of motivation (or statement of purpose) and his/her report illustrating the development of a possible PhD research project, to be sent by applicants at the time of their registration for the competition, in accordance with art. 3 below.

The PhD programme, without prejudice to the programmes referred to in art. 1ter, will last three years.

Pursuant to the MIUR Decree No. 45 dated 08/02/2013, PhD programmes can start only after being accredited by the Ministry in accordance with the consistent opinion of ANVUR.

Therefore, students will be able to enrol, once the student final ranking is published, only where the programme has been accredited for the cycle 31.

**Art. 1 bis
(Types of positions)**

The PhD positions fall within the categories below:

a) positions with doctoral scholarships provided by the Politecnico di Milano. Scholarships may be either general or topic scholarships.

b) positions without doctoral scholarships provided by the Politecnico di Milano, with the payment of tuition fees and contributions for course admission and attendance.

TABLE OF POSITIONS AVAILABLE XXXI cycle

TITLE OF PHD PROGRAMME	TOTAL POSITIONS	NUMBER OF SCHOLARSHIPS (including topic scholarships)
ARCHITECTURE, BUILT ENVIRONMENT AND CONSTRUCTION ENGINEERING	35	19
BIOENGINEERING	14	7
INDUSTRIAL CHEMISTRY AND CHEMICAL ENGINEERING	15	7
PRESERVATION OF THE ARCHITECTURAL HERITAGE	9	6
DESIGN	10	5
PHYSICS	18	14
AEROSPACE ENGINEERING	8	4
ENVIRONMENTAL AND INFRASTRUCTURE ENGINEERING		
Area 1. Water Science and Engineering	2	1
Area 2. Transport Infrastructure and Geosciences	2	1
Area 3 Environmental and Hydraulic Engineering and Geomatics	8	6
MATERIALS ENGINEERING	10	6
INFORMATION ENGINEERING		
Area 1. Computer Science and Engineering	30	15
Area 2. Electronics	22	11
Area 3. Systems and Control	16	8
Area 4. Telecommunications	12	6
ELECTRICAL ENGINEERING	6	4
MANAGEMENT, ECONOMICS AND INDUSTRIAL ENGINEERING	15	10
MECHANICAL ENGINEERING		
Area 1. Advanced Materials and Structures	5	3
Area 2. Sustainable Mobility	8	6
Area 3. Industry of the Future	5	3
Area 4. Energy Efficiency, Environment and Sustainability	2	1
STRUCTURAL, SEISMIC AND GEOTECHNICAL ENGINEERING	8	4
MATHEMATICAL MODELS AND METHODS IN ENGINEERING	14	8
ARCHITECTURAL, URBAN AND INTERIOR DESIGN	5	4
ENERGY AND NUCLEAR SCIENCE AND TECHNOLOGY	20	13
URBAN PLANNING, DESIGN AND POLICY	7	5

All research topics, specific activities and economic conditions can be consulted on the web page "Areas, subjects and topics of research published in the call"

<http://www.dottorato.polimi.it/index.php?id=156&L=1>

The subjects about topic scholarships can be consulted on the web page:

<http://www.dottorato.polimi.it/index.php?id=157&L=1>

The positions and scholarships available may be increased up to completion of all evaluations.

Art. 1 ter

(PhD positions in collaboration with external companies and entities: Executive PhDs and advanced traineeships. Public employees on paid leave, applicants with scholarships provided by foreign entities. International Agreements).

To foster the interaction and integration between university research and the development and innovation of external companies and entities, PhD programmes may be offered in collaboration with external companies and entities (Executive PhDs and advanced traineeships).

These programmes are designed:

- to examine research topics of interest to external companies and entities;
- to develop knowledge for the enrichment, development and innovation of external companies and entities;
- to offer growth opportunities to bright and motivated staff, increasing the internal advance capacities of external companies and entities.

Executive PhDs and advanced traineeships usually last 4 years.

The training goals, the research activities and the costs, if any, to be borne by external companies or entities, are established between the company/entity which the successful applicant belongs to and the Department offering the PhD programme.

The positions for Executive PhDs and advanced traineeships will be in excess of the number of positions indicated in the call, to the extent of no more than 5 doctoral positions for executive PhDs and 2 doctoral positions for advanced traineeships, according to specific agreements with the companies concerned.

In excess of the number indicated in the call, 2 positions may also be reserved to public employees on paid leave and 3 positions may be reserved to applicants with scholarships provided by foreign entities without a prior agreement, for each PhD programme.

For each position listed above in this article, the applicants must be found suitable in the competition in order to be admitted.

Admissions based on international agreements are managed in excess of this call and are regulated by the provisions established for each agreement.

<http://www.dottorato.polimi.it/en/looking-for-a-phd/international-programmes/>

Art. 2

(Requirements for admission to the competition)

Applications may be submitted by Italian and foreign students holding a university degree obtained under the educational system in force prior to M.D. n. 509 dated 3.11.1999, or a Laurea Specialistica (equivalent to a Master of Science) obtained in accordance with M.D. n. 509 dated 3.11.1999, or a Laurea Magistrale (equivalent to a Master of Science) obtained in accordance with M.D. n. 270 dated 22.10.2004, or similar academic qualifications obtained abroad that are equivalent in terms of duration and contents to the Italian qualifications and previously recognised by the Judging Panels.

In case of foreign qualifications, applicants must expressly ask for recognition thereof in their application for admission to the competition and must submit all documents required to enable the competent Judging Panels to decide on the suitability of the qualifications obtained abroad.

Admission to the competition is reserved only to applicants who:

- have obtained a Laurea Magistrale in Italy (or equivalent qualifications that are valid for admission to PhD programmes) **with a final mark no lower than 95/110 or 86/100**;
- in case of qualifications obtained abroad, have **the minimum average score in exams indicated in the appendix to the call**; (attachment 1). For the Countries not included in this list, the evaluation will be carried out directly by the judging panel.

Those who are not in possession of the required qualification at the closing date of the call may also apply. Following the assessment by the Judging Panels, any admission of such applicants to PhD programmes will be "subject to verification".

In any event, the academic qualifications must be awarded before enrolment and no later than 31/10/2015, with the minimum marks indicated above; or else, applicants will lose their right to be admitted to the PhD programme.

Knowledge of English is required; to this end, applicants are required to submit one of the certificates listed below within and no later than the enrolment closing date, if not already submitted at the closing date of the call.

Failure to submit certificates within the established closing date for enrolment irrevocably results in the loss of the right to enrolment.

Below is a list of the certifications accepted by the Politecnico di Milano and the corresponding levels:

TEST	MINIMUM LEVEL REQUIRED
CAMBRIDGE	≥ FCE grade B
CAMBRIDGE IELTS (International English Language Testing System)	≥ 6
ETS - TOEFL (Test of English as a Foreign Language)	paper based (total score): ≥ 547
ETS - TOEFL (Test of English as a Foreign Language)	computer based (total score): ≥ 210
ETS - TOEFL (Test of English as a Foreign Language)	internet based (total score): ≥ 78
ETS - TOEIC (Test of English for International Communication - Listening and Reading Test)	≥ 720
TRINITY COLLEGE LONDON	≥ ISE II

The said certification is valid regardless of the date when it was awarded.

Citizens of Countries in which English is an official language are not required to certify their knowledge of English; the same applies to applicants who have been awarded or will be awarded academic qualifications by an institute in which all teaching activity is carried out in English. These applicants must attach official documents to their application supporting the above; in particular, where all courses are carried out in English, this needs to be certified by the corresponding academic institute.

Art. 3 (Applications for admission to the competition)

Applications for admission to the competition, one for each PhD programme for which the applicant wishes to compete, and the accompanying documentation, must be drawn up and submitted exclusively in electronic form **by 14.00 (in this call, time is always intended as Italian local time) on 29 May 2015**, through the online procedure available at <http://www.phd-admission.polimi.it>.

After confirmation of his/her application, the applicant may apply to, by the closing date and using the same procedure, one or more topic scholarships.

The term is peremptory.

Until its confirmation, the application can be saved and changed by the applicant as many times as desired. Once it is confirmed, it can no longer be changed.

Applicants are required to make sure that the procedure is duly completed. Complaints relating to any information system failures will not be accepted.

In his/her application for admission, the applicant declares under his/her own responsibility:

- his/her details, date and place of birth, residence and address chosen for competition purposes (specifying his/her postal code, phone number, email address and Skype account, if any). The applicant also undertakes to promptly notify any change in his/her residence and/or address where to send all communications;
- nationality;
- academic qualifications held and necessary for admission to the PhD programme, awarded by an Italian University, specifying: date of award, corresponding University, official duration of the study programme, final mark and corresponding scale of marks, if any;

or

- academic qualifications held and necessary for admission to the PhD programme, awarded by a foreign University and declared equivalent to an Italian degree, specifying: date of award, corresponding University, official duration of the study programme, final mark associated with the qualifications awarded and corresponding scale of marks, and date and number of the rectoral decree which declared the equivalence of these qualifications to an Italian degree. If such equivalence has been declared by the Ministry of Education, the applicant must indicate the corresponding details.
If the foreign qualifications have not been declared equivalent to an Italian degree, the applicant must attach to his/her application all the documents necessary for the recognition

and evaluation of the suitability of such qualifications, for the sole purpose of being admitted to the PhD programme;

or

- s/he intends to obtain the qualifications by 31.10.2015, specifying the University which will award the qualifications and the official duration of the study programme;
- s/he holds the certificate proving his/her knowledge of English, as specified in art. 2 of this call;

or

- s/he will produce, within and no later than the enrolment closing date, the certificate proving his/her knowledge of English, as specified in art. 2 of this call;
- **PhD programme for which the applicant wishes to compete, with an illustration of his/her motivations for admission thereto (max 2500 characters);** specification as to the research areas, if any (max 2, in order of preference) for which the applicant intends to compete among all those proposed, if any, in the specific PhD programme for which s/he applies. Illustration of the reasons for choosing PhD topic scholarships, if any;
- details of no more than 2 referees, together with their email address, phone number and Skype details, if any;
- **whether the applicant intends to compete for any type of scholarship (whether general or topic scholarships): this option is binding for the assignment, if any, of the scholarship and can be exercised until the application is confirmed. The option is also binding to compete for topic scholarships, if any, referred to in the point below;**
- **whether the applicant intends to compete for one or more topic scholarships as long as these are envisaged by the PhD programme: this option may be enforced after confirming one's application and in any event by 14.00 on 29 May 2015 via the online procedure <http://www.phd-admission.polimi.it>;**
- s/he undertakes to attend the PhD programme in accordance with the provisions set out in this call, in the [Politecnico di Milano PhD Regulations](#) and at the conditions set out by the Professors' Board;
- s/he authorises the competent offices to process, communicate, disseminate and divulge his/her personal data, also with the methods set out in art. 6 of this call, in accordance with Legislative Decree no. 196 dated 30.6.2003 ("Personal data protection code");

The applicant attaches to his/her application:

- a certificate proving his/her knowledge of English, as specified in art. 2 of this call;
- a PDF report illustrating the development of a possible PhD research project (if the specific PhD programme for which the application is completed, includes research areas, the applicant must attach a report for each research area for which s/he intends to compete though for no more than two areas), prepared according to the RTF format available in the procedure (please note that the research project illustrated in the report sent at the time of registration for the competition is not necessarily the project that will be carried out during the PhD programme; in case of the applicant's admission, the research project that will be actually carried out will be subsequently defined and approved by the relevant Professors' Board after starting the PhD programme);
- a curriculum vitae in PDF format, according to the scheme prepared and available in RTF in the procedure.
The applicant must supply the information requested in the CV scheme.
In particular, the CV should include the list of the applicant's publications and, in any case, no more than two documents attached (for instance, a portfolio and a publication, or 2 publications) chosen among those that are deemed most significant to illustrate the applicant's potential; the curriculum file, together with its attachments, must not exceed 10 MB;
- PDF documents relating to all the applicant's **University qualifications** (awarded or to be awarded), with the diploma, if any, in the original language, the list of exams held, the corresponding marks and any translations into Italian or English;
- a duly signed copy of the applicant's identification document; non-EU applicants must attach a copy of their passport or of another identification document together with its translation into Italian or English;

- a copy of the applicant's tax code, which is required for Italian applicants. In any event, foreign applicants will need to have a tax code to complete enrolment.

A non-refundable contribution of €25.82 is required for each application, to be paid by 14.00 on 29 May 2015.

Such contribution may be paid with the MAV payment slip or by credit card, following the instructions in the online application procedure.

All documents submitted may be in Italian or English. **Documents written in other languages must be translated into Italian or English by the university of origin or by an authorized institution.**

The competent department can verify, at any time of the procedure and even following the start of the PhD programme, the truthfulness of the declarations submitted and can ask for production of the original copies of documents.

It may thus exclude applicants from the selection at any time, giving reasons therefore, in case of lack of the requirements set out in this call.

Art. 4 (Judging Panels)

The Judging Panels of the competitions for admission to the PhD programmes referred to in article 1 are set up in accordance with the PhD Regulations of this University.

Art. 5 (Assessment criteria)

The applicants duly registered for the competition will be admitted to the PhD programme after the Judging Panel's assessment of their suitability subject to the limit of positions available.

The applicant's suitability for admission to the PhD programme chosen is based on the assessment of the applicant's quality and of his aptitude to scientific research in the research areas of the PhD programme for which the applicant competes, as shown in his/her academic curriculum, letter of motivation (or statement of purpose) demonstrating his/her interest in research and in his/her reports illustrating the development of possible research projects in the areas of the PhD programme for which s/he competes and sent at the time of his/her application. It is recalled that the research project illustrated in the report sent at the time of registration is not necessarily the project that will be carried out during the PhD programme; in case of the applicant's admission, the research project that will be actually carried out will be subsequently defined and approved by the relevant Professors' Board after starting the PhD programme, as laid down in the [PhD Regulations](#).

The Judging Panel has 100 points to assess each application.

If the PhD programme is divided into areas, the Judging Panel creates a ranking list for each area chosen by the applicant, in accordance with a maximum score of 100 points per area.

The score is divided up as follows:

- curriculum: up to 50 points;
- motivation for admission to the PhD programme chosen: up to 15 points;
- report illustrating the development of a possible research project in the areas of the PhD programme for which the applicant competes: up to 35 points.

Applicants are deemed suitable if their application obtains a total score that is not below 60 points out of 100.

The Judging Panel may contact applicants for an interview to further discuss the material submitted (this interview does not imply an additional score).

For the purpose of assigning topic scholarships, for each applicant deemed suitable for admission to the PhD programme, the Judging Panel will assess his/her suitability in relation to the topic scholarships chosen thereby in the documents submitted with his/her application.

**Art. 6
(Student ranking lists)**

At the end of the assessments, each Judging Panel draws up a ranking list for each research area, according to the criteria set out in the previous article: positions, with or without a scholarship, are allocated in accordance with the order defined in the corresponding ranking list.

Scholarships are assigned to suitable applicants based upon:

1. their ranking position
2. their suitability for the options, if any, expressed by applicants for topic scholarships

If the applicant is suitable both for a general scholarship and for a topic scholarship, the Judging Panel will decide which scholarship to assign taking account of the overall assessment, qualifications and documents submitted by the applicant.

Student ranking lists will be published **as from 27 July 2015** on the web page "Student ranking lists and replacements"
<http://www.dottorato.polimi.it/index.php?id=49>

**Art. 7
(Obligations after the publication of student ranking lists)**

Acceptance of scholarships and paid positions

Each admitted applicant must fulfil the obligations below:

via the procedure <http://www.phd-admission.polimi.it>, **from 10.00 on 27 July 2015 to 14.00 on 7 September 2015**, s/he must declare:

- in which PhD programme/area to which s/he has been admitted with a scholarship or paid position, s/he intends to enrol. The applicant's acceptance of the scholarship or paid position for a PhD programme/area is binding and excludes the applicant from all the other ranking lists
- or
- whether s/he renounces the scholarship or paid position for all the PhD programmes/areas to which he has been admitted. In case of renunciation of the scholarship only, the applicant must specify, for each PhD programme/area, whether s/he intends to enrol as a paid student or whether s/he renounces enrolment too.

The applicant's renunciation of a scholarship and/or paid position, is irrevocable.

Failure to meet the obligations and deadlines indicated above implies irrevocably the loss of the applicant's right to the position with scholarship or to the paid position.

Applicants admitted for paid positions and who are interested in competing for the assignment of scholarships following renunciations must accept the paid position within the deadline indicated above.

Applicants who accept the scholarship or paid position can enrol immediately provided they have the academic qualifications and English language certificate required, and in any case within the deadline and according to the method set out in art. 9 below.

Applicants suitable but not admitted, who no longer wish to enrol, are asked to communicate their renunciation so as to make the positions available to other applicants in the following replacements.

**Art. 8
(Replacements)**

Upon fulfilment of the obligations set out in art. 7, a replacement ranking list will be prepared for each PhD programme/area, in accordance with the criteria set out in art. 6. The replacement ranking lists will be published on the web page "Student ranking lists and replacements"
<http://www.dottorato.polimi.it/index.php?id=49>

The replacement ranking list will be published as from 21 September 2015.

Applicants admitted with a scholarship or for paid positions must accept the scholarship or the paid position and enrol by 31 October 2015, provided they hold the academic qualifications and English language certificate required.

Any topic scholarships that become available following their non-allocation will be reassigned to admitted or suitable applicants based on the general ranking list, subject to a prior assessment of suitability by the Financing Body and Research Head.

Art. 9 (Enrolment method)

In addition to accepting the scholarship/paid position, **all applicants who are high enough in the ranking list to be eligible for admission (see art.s 6, 7 and 8) must enrol within the following deadlines, or else, applicants will lose their right to be admitted to the PhD programme:**

Applicants who accept the scholarship or paid position after publication of the general ranking list

from 10.00 on 27 July 2015 to 14.00 on 31 October 2015, provided they are awarded the academic qualifications with the score required and the English level indicated in art. 2 by 31 October 2015, with activities starting in November 2015.

Applicants who accept the scholarship or paid position after publication of the replacement ranking list

from 10.00 on 21/09/2015 to 14.00 on 31 October 2015, provided they are awarded the academic qualifications with the score required and the English level indicated in art. 2 by 31 October 2015, with activities starting in November 2015.

Applicants must enrol via the specific application software available at <http://www.phd-admission.polimi.it>

In case of foreign qualifications, the applicant must submit the documents below in original to the Administration Service within the enrolment closing date (only for the academic qualifications required for admission to the PhD programme):

academic qualifications awarded by a non-EU nation:

Declaration of equivalence issued by the diplomatic mission in the country in whose national education system the institution awarding the certificate is included

or

Diploma Supplement in English

academic qualifications awarded by a EU nation:

Diploma Supplement in English

or

Suitable documentation in Italian or English

Graduate students admitted for paid positions are required to pay tuition fees and contributions amounting to Euro 1,500.00 per year of enrolment.

This payment is divided into 2 instalments:

- the first instalment, equal to Euro 750.00, is payable upon enrolment with the MAV payment slip or by credit card, following the instructions given in the online enrolment procedure;
- the second instalment, equal to Euro 750.00, is payable by 31 May 2016 with the MAV payment slip or by credit card, accessing one's personal web page and following the instructions.

The regional fee and administration fees, totalling Euro 185.58 per year, will be withheld from the first monthly grant paid to scholarship holders.

The method of award of a PhD is indicated in the [Politecnico di Milano PhD Regulations](#).

Art. 10
(Reference to the law)

Any issues that are not expressly covered by this call, shall be regulated by the provisions set out in Law n. 398 dated 30.11.1989, Law n. 240 dated 30.12.2010 and in the MIUR Decree "Regulations containing the procedures for accreditation of PhD venues and programmes and criteria for the establishment of PhD programmes by accredited bodies" No. 45 dated 08/02/2013, in the [Politecnico di Milano PhD Regulations](#), in the Regulations regarding University industrial property, and in other applicable provisions of the law in force.

In accordance with art. 5 of Law n. 241 dated 7 August 1990, as amended and supplemented, the Manager of the Procedure for this call is Mr. Claudio Duran, Undergraduate and Graduate Students Service, PhD Students Registrar's Office.

For further information, applicants should contact the Graduate Student Administration Service – Via Golgi 42 - 20133 Milan, Italy (*Mondays to Fridays, from 9.30 to 12.30*) or write an email (dottorato.ricerca@polimi.it; internationalphd@polimi.it).

This call will be published on the website of the Politecnico di Milano, the website of the Ministry and on Euraxess.

It may also be consulted on the web page "31st cycle PhD call - 2015/2016"

<http://www.dottorato.polimi.it/index.php?id=196&L=1>

Any changes or additions to the call will be published on the same web page.

Milan, 16th April 2015

THE RECTOR
Signed Prof. Giovanni Azzone

Attachment 1 - MINIMUM AVERAGE SCORE IN EXAMS FOR QUALIFICATIONS OBTAINED ABROAD

Argentina	6/10
Bangladesh	3.1/4.0
Bolivia	64/100
Chile	4.5/7
China	70/100
Colombia	3.5/5
Egypt	65/100
Ethiopia	3/4
European Countries (ECTS grading system)	C+
Ghana	62/100
India	60/100 or 4.5/7
Indonesia	2.5/4
Iran	14/20
Iraq	65/100
Jordan	70/100
Lebanon	13/20 or GPA 2.5
Libya	65%
Malaysia	2.33/4 (CGPA)
Mexico	7/10
Morocco	13/20
Nigeria	50/100 or 3/5
Pakistan	3/4
Palestine	75/100
Russian Federation	3.9/5
Serbia	7.5/10
South Africa	60%
Switzerland	5.5/10
Syria	60%
Thailand	2.5/4
Turkey	2.6/4
Venezuela	13/20 or 61%
Vietnam	7/10

These values are the minimum values accepted, except as otherwise indicated in the Table. Other Countries not included in the Table or scoring systems that are different from those indicated in the Table: the Judging Panel will assess the qualifications submitted by the applicant.