



UNIVERSITY OF TRENTO - Italy

**Announcement of selection for PhD positions in
Materials Engineering – 21st cycle**

THE RECTOR

Given Law no. 210 of 03.07.1998, and in particular, art. 4, which assigns the organization of PhD studies to universities in accordance with the general criteria stipulated by ministerial regulations;

Given the Ministerial Decree no. 224 of 30.04.1999, regarding the general criteria to be followed by individual universities in the organization of PhD studies;

Given the Decree by the Prime Minister of 09.04.2001, and subsequent amendments on the general criteria for uniform treatment regarding the right to higher education;

Given the Charter of the University of Trento and in particular, art. 8, paragraph 3;

Given the University Regulations for PhD Research Programmes, issued with the Rector's Decree no. 997 of 16.12.2003;

Given the proposals made by the Department of Materials Engineering and Industrial Technologies;

Given the report by the Scientific Committee in its session on 10.06.2004 on the scientific relevance of the proposal to set up PhD Programmes;

Given the report of the internal Evaluation Committee of 19.05.2004 on the requirements for the PhD Programmes proposed;

Given the resolution made jointly by the Academic Senate and the Scientific Research Committee on 7.05.2005

decrees

ART. 1 - INSTITUTION

The University of Trento announces the 21st cycle of the Doctorate School in Materials Engineering in co-operation with the University of Havana (Cuba).

Length: three years

Areas of research (curricula): A) Materials and Structural Mechanics
B) Design, Preservation and Control of Structures

Scientific Areas:	ING-IND/21	Metallurgy
	ING-IND/22	Materials Science and Technology
	ING-IND/23	Applied Physical Chemistry
	ING-IND/25	Chemical Plants
	ING-IND/14	Machine Design
	ING-IND/34	Industrial Bioengineering
	FIS/03	Material Physics
	MAT/07	Mathematical physics
	GEO/02	Stratigraphic and Sedimentological Geology

Coordinator: prof. Paolo Scardi – phone: 0461 882417 - e-mail: paolo.scardi@ing.unitn.it

Official languages: Italian and English

Selection for 12 PhD positions in the PhD Programme is announced. 6 positions will be assigned grants.

Grants are financed as follows:

5 grants	University of Trento (Italy)
1 grant	National Consortium of Materials Science and Technology (INSTM), concerning the topic “Production of solid oxide components for fuel cells”

The number of grant-assisted places may be increased by funds from universities, public research bodies or qualified private organizations made available after the publication of this announcement and before the beginning of the selection. Any increase in the number of available places resulting from an increase of grants will be communicated through the official notice board of the University of Trento and posted on the website: http://www.unitn.it/ricerca/dottorati_form_av/ciclo_21/bandi.htm

ART. 2 –ADMISSION REQUIREMENTS

Applications for PhD positions are accepted from candidates, regardless of sex, age and nationality, who have an “laurea specialistica italiana”, according to Ministerial Decree no. 509 of 3.11.1999 as amended, a university degree of the previous regulations in force, or equivalent degree qualification obtained abroad.

Applicants who have a foreign qualification that has not been officially recognized as equivalent to an Italian degree should submit a request for equivalence to be recognized in their application for the selection.

In this case it is necessary to attach the following documents:

- degree certificate or degree self-certification (according to Presidential Decree no. 445 of 28.12.2000 concerning EU citizens);
- translation into English of the degree certificate with exams and grades obtained and furthermore signed by the applicant to enable the Doctorate School Committee to declare its equivalence, for the sole purpose of being admitted to the selection of the PhD Programme.

After their admission to the School, successful non EU applicants who have a foreign qualification must present the degree certificate with exams and grades obtained, translated and certified by the Italian Embassy in the country of the university that issued the degree, and the Declaration of value (“Dichiarazione di valore”) **not later than the date set for the enrolment in the Doctorate School.**

Applications are also invited from students who expect to complete their degree by the date of the assessment of qualifications. In such cases admission will be "conditional" and the applicant must be able to present the relevant degree certificate, or a declaration that the degree has been conferred (according to Presidential Decree no. 445 of 28.12.2000, applicable only to citizens of the European Union), by the date of the examination.

Art. 3 – THE PhD PROGRAM

The syllabus provides for activities differentiated during the three-year course, with greater attendance of classes during the first and second year.

On the whole, the activity adds up to 180 credits, 120 of which attributed to research and 60 to educational activities.

Research credits are awarded by completing the dissertation, whereas classroom credits can be obtained by attending:

- courses of the Manifesto of Studies (<http://www.ing.unitn.it/dimti/>);
- courses taken at other institutions;
- schools, workshops and seminars held by the PhD Programme or by other institutions.

Such activities must be certified, based on actual attendance and achievement of specific educational objectives.

The purpose of the classroom work is to provide students with an advanced background on the main topics of materials science and technology, placing emphasis on engineering expertise which is the basis of a PhD in Materials Engineering. All in all, the target of the PhD Programme is to produce professionals with a solid qualification in engineering, to apply to research or technology, working in research centres as well as in companies.

One of the aims of the PhD Programme is that students achieve a complete maturity and autonomy in planning, programming, developing and reporting their research activity.

For advancement to the second and third year, students are asked to take an exam, in the form of a seminar on the research topics related to the dissertation. The seminar is public, and is held in front of a commission composed of at least two members appointed by the Doctorate School Committee, and the tutor. The final

judgement of the commission will be based on the presentation, quality and advancement of the research work, as well as ability of the student in answering to questions posed by the commission and by the audience. Formal admission to the following year is granted by the Doctorate School Committee, which is asked to discuss and approve (if need be) the report presented by the commission.

To be admitted to the following year, students should achieve at least 2/3 of the credits provided for their curriculum, unless the Doctorate School Committee allows an exception (for example, to allow the student to conduct extended research activity abroad).

Denial of admission to the following year implies the exclusion from the PhD Programme and forfeiture the grant.

Within the third year students should take an exam, similar to the exam for admission to the second and third year, which qualifies him or her to sit the final examination.

Art. 4 – APPLICATION TO PARTICIPATE IN THE SELECTION

Application should be made using the application form attached to this announcement.

The application, including a photocopy of the candidate's identity card or passport, must arrive at the University of Trento **by the 23rd of September 2005** in one of the following ways:

- by hand to the University of Trento - Ufficio Dottorati di Ricerca, Via Inama 5 – 38100 Trento (TN), from 10:00 am to 12:00 a.m., Monday to Friday;
- by mail to the following address: “Magnifico Rettore dell’Università degli Studi di Trento - via Belenzani 12 – 38100 Trento (TN), ITALY” (please, write “PhD Programme in Materials Engineering” on the envelope);
- by fax to the following number: +39 0461 882191.

The applicant should ensure that the address given for correspondence and the telephone number are correct and that any changes are reported as soon as possible to the University of Trento - Ufficio Dottorati di Ricerca. The University of Trento does not accept responsibility for mistakes made by post offices.

Applications arriving after the 23rd of September 2005 will not be considered, even if sent before this date.

According to Italian Law no. 104/92, art. 20, and to Italian Law no. 68/99, art. 16, para. 1, applicants with special needs are expected to indicate explicitly in their application whether they require special assistance or extra time during the examinations. Under Legislative Decree 196/03, all information will be kept confidential.

Applications should include:

- a photocopy of the applicant's identity card or passport;
- degree certificate or degree self-certification (according to Presidential Decree no. 445 of 28.12.2000 concerning EU citizens) with a list of the examinations passed successfully and the scores obtained in each examination (except for candidates who have not yet obtained the degree certificate when they present the application as outlined in Art. 2 of the announcement).

Applicants with a foreign qualification that has not been officially recognized as equivalent to the Italian degree have to attach a translation in English of the degree certificate with exams and scores obtained, signed under their own responsibility, so as to allow the Doctoral School Committee to declare the equivalence, valid for the only purpose of participating in the selection.

- curriculum studiorum;
- any certificates proving the knowledge of the English language;
- any other qualifications useful for assessment of the applicant (dissertations, scientific publications, works publishing).

If, pursuant to submission of their application, applicants have to add further information, it must reach the University offices by **the 23rd of September 2005**. The applicant's name, the Doctorate School he or she is applying for and the subject ("integrazione domanda") must be clearly written on the envelope.

The University of Trento has the right to check, even to spot check, declarations and documents provided by the candidates, according to art. 71 and following articles of the Presidential Decree no. 445 of 28.12.2000.

Any time, candidates not fulfilling the requirements requested, can be left out the selection for the School of Doctoral Studies.

Art. 5 – SELECTION

Admission to the PhD Programme is decided after comparative selection assessing the candidate's knowledge and his/her aptitude for scientific research.

Applicants must show a document for identification in order to be admitted to the examination.

The examination consists in:

- an assessment of qualifications according to Art. 4;
- a written exam;
- an oral exam.

The oral exam will also evaluate the candidate's knowledge of English.

The written and oral exam may be held in Italian or English prior authorization by the Admissions Committee.

The Admissions Committee can assign each candidate a total score of 90 as follows:

- 30 qualifications;
- 30 written test;
- 30 oral exam.

Only applicants obtaining a minimum score of 18 in the written test will be admitted to the oral exam.

The oral examination is successfully passed with a minimum 18 point score.

At least 20 days before the date of the examination, time and location of the examination will be displayed on the website: http://www.unitn.it/ricerca/dottorati_form_av/ciclo_21/calendario_prove.htm

as laid down in Art. 19 of the University Regulations for PhD Research Programmes.

Art. 6 – PROGRAM OF THE EXAMINATION

The written test is based on the general knowledge of Materials Engineering topics.

The oral exam will be focused on discussion of the written exam, the degree dissertation, any qualification of the candidate and a research proposal regarding the topic of candidate interest among those proposed by PhD Programme.

Art. 7 – ADMISSION COMMITTEE

The Rector, after hearing the Doctorate School Committee, appoints the Admission Committee. It will consist of 3 members chosen from among Italian and foreign tenured professors and researchers, who are experts in the scientific areas of the PhD Programme. The Committee may also include two experts from public and private national and international research institutes.

The Admissions Committee can give different topics of exam relating to different areas of research (curricula).

When the entrance examinations are over, the Committee will draw up a general merit-based ranking according to the grades obtained by the applicants in each examination. The final ranking of candidates will be posted on the website:

http://www.unitn.it/ricerca/dottorati_form_av/ciclo_21/graduatorie/index.htm

Through publication of the list, notification concerning the proceedings is considered to be fulfilled.

The successful applicants will not receive personal communication of the results.

Art. 8 - ADMISSION TO THE PHD PROGRAMME

Short-listed applicants will be admitted to the PhD Programme according to their order on the list until all available places have been filled.

If the candidates are equally worthy of admission, the student's economic situation will be evaluated for places that include a grant, in accordance with the Decree of the President of the Council of Ministers (D.P.C.M.) of 9.04.2001 as amended; for places not subject to a grant, the younger student shall be given priority.

If a successful applicant withdraws before the beginning of the course, the next applicant on the list will be offered the place.

If a successful applicant withdraws or is excluded in the first three-month term of the first year, the Doctorate School Committee may decide to fill the vacant place with another candidate on the list.

According to art. 18, paragraph 3, of the University Regulations for PhD Research Programmes and according to previous Doctorate School Committee resolutions, the Admissions Committee **may admit** to the School up to **35%** of the total assigned places, candidates who are eligible in the general ranking, if they belong to the following categories:

- applicants from non-E.U. countries who have been awarded any kind of grant;
- applicants from a country with a specific intergovernmental agreement with Italy, on the basis of a bilateral agreement between the University of Trento and the foreign university (with no obligatory

financial burden for the University of Trento);

- short-listed applicants who have been awarded grants under Law 449/97, Art. 51 (“Assegni di ricerca”).

Art. 9 – HOW TO ENROLL

Successful applicants should forward their application for enrolment with tax stamps to the following address: **“University of Trento - Direzione Servizi e Comunicazione – Ufficio Dottorati di Ricerca, Via Inama 5 – 38100 Trento (ITALY)”**

within 15 days of the date of the publication of the final list.

If applicable, the receipt of payment of the provincial tax for the right to university study (TDS) must be attached to applications.

In their applications (forms are available at the University of Trento - Ufficio Dottorati di Ricerca and on the website: http://www.unitn.it/ricerca/dottorati_form_av/ciclo_21/download/modulo_iscrizione_eng.doc) candidates should:

- ask/ask not to be awarded a grant (including successful applicants who are not eligible for a grant in case an applicant eligible for a grant gives up his/her place);
- declare that they have not already enrolled and undertake not to enrol in any other programme for a diploma, degree, an Italian “Scuola di Specializzazione”, PhD or master degree, whether of the I or the II level, for the duration of this PhD Programme; if they are, they will stop attending such a school before the start of the Programme;
- declare that they have/have not already been awarded (even for one year only) an Italian grant for a PhD Programme;
- declare that they are/are not employed by the Italian public sector;
- declare to request in advance to the Doctorate School Committee authorization for any occupation;
- undertake to inform immediately the University of any changes of their residence or address.

Successful applicants from a non-E.U. country, who have a foreign qualification, must attach their degree certificate with the examinations passed and the scores obtained, translated and authenticated by an Italian consulate, embassy or diplomatic representative in the country of the university that issued the degree and the respective declaration of equivalent value (“Dichiarazione di valore”).

Successful applicants who do not send their application **within 15 days** following the date of publication of the list on the website:

http://www.unitn.it/ricerca/dottorati_form_av/ciclo_21/graduatorie/index.htm

lose the right to enrol and the corresponding place will be offered to the next candidates on the list.

Art. 10 – GRANTS

Grants are assigned on the basis of the merit-based ranking of applicants drawn up by the Admissions Committee.

If a candidate awarded a grant forfeits this right, the next candidate on the list will be offered the grant.

Successful applicants can choose one of the grants financed by the University or those financed by external bodies according to their position.

The annual gross sum of the study grant, determined according to art. 1, paragraph 1, letter a), of Law no. 315 of 3.08.1998, as amended, amounts to Euro 10,561.54¹.

The grant is normally paid bi-monthly in advance, with recover of undue payments in case the student is expelled or suspended.

The grant cannot be combined with other grants, except those awarded by national or foreign scientific institutes for periods spent abroad and deemed useful for the research activities of the student.

The grant is increased by 50% for any periods spent abroad that are authorized by the Coordinator or by the Doctorate School Committee.

The study grant is awarded for the entire duration of the PhD Programme following confirmation by the Doctorate School Committee of the results achieved every year.

Failure to attend the PhD Programme for over thirty days will do the grant being suspended.

Art. 11 - PhD STUDENTS RIGHTS AND DUTIES

PhD students must undertake to attend the PhD Programme and to carry out research activities on a full time basis according to the schedules and the regulations laid down by the Doctorate School Committee, as specified in Art. 3 of the present announcement.

Students attending to a co-tutelle of thesis are obliged to carry out study and research activities in compliance with the agreement with the foreign university.

In case of negative opinion given by the Doctorate School Committee regarding activities and studies, the Rector can exclude students from the PhD Programme.

Grants financed by external bodies where specific research is required limit the grant holder to carry out this work for the entire PhD Programme.

For the duration of the PhD Programme, students are insured by the University against accidents and damage to third parties that occur in circumstances pertaining to the PhD Programme.

From the beginning and for the whole duration of the PhD course, a public service employee accepted for a PhD course may request leave of absence for reasons of study, without monetary allowances, and may benefit from the study grant, where the required conditions are met.

In the case of admission to a PhD Programme without a grant, or should he/she waive it, the person on absence of leave enjoys the economic remuneration and social insurance and retirement benefits enjoyed by the public administration where he/she is employed. Should the employee terminate employment in public administration in the two years succeeding his / her having obtained a PhD, the amounts paid out during the course of the PhD studies are claimed back.

¹ At the moment of the publication of this announcement the current Italian Law states that the PhD scholarship is subject to social security contributions (INPS 10% or 18%, 1/3 of which has to be paid by the PhD student), according to art .2, para. 26 of Law no. 335/95 as amended.

Art. 12 – PhD TITLE CONFERRAL

The title of PhD, conferred by the Rector, is granted when students pass the final examination which will take place at the end of the three-year PhD Programme.

The Examining Committee will be nominated by the Rector, upon the advice of the Doctorate School Committee according to the University Regulations for PhD Research Programmes.

Art. 13 – PERSONAL DATA

The University of Trento, in accordance with Legislative Decree 196/03 “Italian Personal Data Protection Code” and subsequent amendments, will use the applicants’ personal data only for fulfilment of the selection procedures and for institutional reasons.

In observance of the above-mentioned law, participation in the selection requires the applicant to give the University of Trento permission to publish his/her personal data concerning the results of the selection procedure on the University website.

Art. 14 – REFERRAL RULE

For matters not explicitly mentioned in the present announcement, art. 4 of Law no. 210 of 03.07.1998, the Ministerial Decree no. 224 of 30.04.1999 and the University Regulations for PhD Research Programmes issued with the Rector's Decree no. 997 of 16.12. 2003 shall apply.

Trento, 7th of June 2005

The Rector

Prof. Davide Bassi

TO THE MAGNIFICO RETTORE
UNIVERSITÀ DEGLI STUDI DI TRENTO
VIA BELENZANI, 12
38100 TRENTO – ITALY

I, the undersigned, apply to be included in the competitive selection for the PhD Programme in

MATERIALS ENGINEERING
21st CYCLE

For this purpose I, the undersigned, declare²

SURNAME	
FIRST NAME	
DATE OF BIRTH	
PLACE OF BIRTH Town City	
Country	
CITIZENSHIP	

PLACE OF RESIDENCE

Address			
Zip Code			Country
Tel			Fax
E-mail			

ADDRESS FOR CORRESPONDENCE (if different from residence)

Address			
Zip Code			Country
Tel			Fax

- THAT I HAVE _____ CITIZENSHIP
- THAT I HAVE AN ITALIAN DEGREE (“LAUREA”) with mark _____

IN (subject)	
FROM (University)	
CONFERRED ON (date)	

² It is a criminal offence to provide incorrect or incomplete information; any candidate found to have done this will be automatically rejected from the PhD Programme.

- **THAT I HAVE NOT YET GRADUATED**, that I am aware that my admission to the PhD Programme depends on the presentation of my degree certificate by the date of the examination and that I am currently

STUDYING (subject)	
AT (University)	
COUNTRY	

- **THAT I HAVE A FOREIGN QUALIFICATION which is recognized as equivalent to the Italian degree**

Italian Rector's Decree recognizing equivalence	No.
	on (date)
	University of

- **THAT I HAVE A FOREIGN QUALIFICATION and I request the Doctorate School Committee to recognize its equivalence to the Italian degree** ³

- **THAT I SPEAK ENGLISH (please, point out the level of knowledge)** _____

- **THAT I SPEAK THE FOLLOWING LANGUAGE(S)**

<input type="checkbox"/> French	<input type="checkbox"/> Spanish	<input type="checkbox"/> German	<input type="checkbox"/> Russian	<input type="checkbox"/> _____	<input type="checkbox"/> _____
--	---	--	---	--------------------------------	--------------------------------

- **THAT I UNDERTAKE to inform the University of any changes of my address of residence, place of living and correspondence**

- **THAT I HAVE / DO NOT HAVE** ⁴ **ANY DISABILITY (art. 4 Law 104/92) and need:**

- **the following assistance:** _____
- **and/or extra time (cross out as necessary):** **YES** **NO**

- **THAT I AM AWARE AND TO ACCEPT THE REGULATIONS REGARDING:**

- **the present call**
- **the University Regulations for PhD Research Programmes**
http://www.unitn.it/ateneo/norme_regolamenti/regolamenti/download/ricerca_prod_intel/Regol_in_materia_di_Scuole_dottorato_ricerca_vers_ingl.pdf
- **the Materials Engineering PhD Programme Regulations**
http://www.unitn.it/ateneo/norme_regolamenti/regolamenti/download/ricerca_prod_intel/norme/Na_ing_materiali.doc

Date _____

Signature _____

³ Candidates who have a foreign qualification that has not been officially recognised as equivalent to the Italian degree must send an English translation, signed by the PhD student, to enable the Doctoral School Committee to declare its equivalence, valid for the only purpose of participating in the selection. Successful applicants from a non-E.U. country, who have a foreign qualification, have to attach their degree certificate with the examinations passed and the grades obtained, translated and authenticated by an Italian consulate, embassy or diplomatic representative in the country of the university that issued the degree and the respective declaration of equivalent value (“Dichiarazione di valore”) not later than the date set for enrolment in the School of Doctoral Studies.

⁴ Cross out the item of no concern.

ANNEXES⁵:

- a photocopy of the applicant's identity card or passport;
- degree certificate or degree self-certification (according to Presidential Decree no. 445 of 28.12.2000 concerning EU citizens) with a list of the examinations passed successfully and the scores obtained in each examination (except for candidates who have not yet obtained the degree certificate when they present the application as outlined in Art. 2 of the announcement).

Applicants with a foreign qualification that has not been officially recognized as equivalent to the Italian degree have to attach a translation in English of the degree certificate with exams and scores obtained, signed under their own responsibility, so as to allow the Doctoral School Committee to declare the equivalence, valid for the only purpose of participating in the selection.

- curriculum studiorum;
- any certificates proving the knowledge of the English language;
- any other qualifications useful for assessment of the applicant (dissertations, scientific publications, works publishing).

⁵ After the conclusion of the entrance examination procedure, applicants intending to receive back their documents attached to their application for the selection of the PhD Programme must write to the Administration (Ufficio Dottorati di Ricerca) a specific request within a year the expire date of the present announcement.
Any postal expenses will be met by the applicant.