



FREIE UNIVERSITÄT BOZEN

LIBERA UNIVERSITÀ DI BOLZANO

FREE UNIVERSITY OF BOZEN · BOLZANO

Public Competition Announcement for PhD courses – 25th cycle

DECREE NO. 06 /2009

THE PRESIDENT OF THE FREE UNIVERSITY OF BOZEN-BOLZANO COUNCIL

- Considering the Statute of the Free University of Bozen-Bolzano;
- Considering Law no. 210 of July 3, 1998, and in particular, art. 4, which assigns to universities the institution of PhD courses, the application conditions and the award of the degree based on an appropriate regulation in accordance with the general criteria stipulated by ministerial regulation;
- Considering Ministerial Decree no. 224 of April 30, 1999, regarding the general criteria to be followed by individual universities in the organization of PhD studies;
- Considering the Prime Minister's Decree of April 9, 2001 and subsequent amendments on the general criteria for uniform treatment regarding the right to higher education;
- Considering the Regulation concerning PhD Research Programmes of the Free University of Bozen-Bolzano, approved by the Executive Committee of the University Council under resolution no. 99 of October 22, 2003 and subsequent amendments;
- Considering the reports from the Internal Evaluation Committee dated March 20, 2009 on the requirements for the PhD courses proposed;
- Considering the reports from the Academic Senate no. 525/2009 and no. 526/2009 on the institution of the PhD courses proposed;
- Considering resolutions no. 306/2009 and no. 307/2009 of the University Council concerning the approval of the PhD courses proposed;
- Considering resolution no. 240 of 31 October, 2008 of the University Council concerning the exemption from paying enrolment fees for PhD candidates without grants;
- Considering resolution no. 251 of 21 November, 2008 of the University Council concerning the increase in the total amount of grant awarded to PhD students;

DECREES

ART.1 – INSTITUTION

The Free University of Bozen-Bolzano announces a public competition, by examinations and/or qualifications, for admission to the following PhD Research Programmes of the 25th cycle, for the 2009/2010 academic year.

COMPUTER SCIENCE

Duration: 3 years

Scientific areas: INF/01 Computer science and ING-INF/05 Information Processing Systems

Official language of course: English

A public competition for the allocation of 14 places is announced of which 7 will be covered by grants from the Free University of Bozen-Bolzano and 1 will be covered by the ONTOlogies meet business RULEs research project.

GENERAL PEDAGOGY, SOCIAL PEDAGOGY AND GENERAL EDUCATION

Duration: 3 years

Scientific areas: M-PED/01 General and Social Pedagogy and M-PED/03 General Teaching and Special Pedagogy

Official languages of course: Italian and German

A public competition for the allocation of 10 places is announced of which 5 will be covered by grants from the Free University of Bozen-Bolzano and 2 will be available for non-EU students without grants.

ART. 2 – PHD COURSE PROGRAMMES

COMPUTER SCIENCE

Research at the Faculty of Computer Science covers three different research areas, whose study areas and topics will be developed by research groups on a long term basis.

The research areas, together with a selection of research topics, are:

1. Databases and Information systems:
 - Management and analysis of large databases
 - Temporal data models and databases
 - Data evolution and data integration
 - Approximation techniques for large databases

- Information search and advisory systems
- 2. Knowledge representation and databases:
 - Logics for knowledge representation
 - Intelligent access to databases
 - Controlled Natural Language
 - Temporal aspects in data and knowledge
 - Advanced database technologies
- 3. Software Engineering:
 - Agile methods, lean management, and open source
 - Measurement and study of software quality, reliability, evolution, and reuse
 - Distributed architecture for computation, web services, and mobile systems
 - IT business alignment
 - Component-based development and re-use of software
 - Cooperative systems and interoperability

PhD work involves the investigation of research questions that arise during the work undertaken by the three different research groups.

A list of possible PhD theses of the current PhD cycle:

- Analysis of the trust factors in the Open Source Development process
- Analysis of the introduction and usage of Open Source software in the Public Administration
- Data collection and analysis for IT business alignment
- Integration and interoperability of mobile and location-based web services
- Visualization techniques for the evolution of software metrics
- Analysis of source code evolution in industrial and Open Source environments
- Integration and optimization of cooperative systems
- Medical data mining
- Temporal pattern recognition in medical data
- Multi-dimensional temporal OLAP
- Time varying geographic information systems
- Database cleansing
- Lossless database evolution
- Querying semi-structured databases
- Context-aware computing
- Adaptive recommender systems
- Ontology-Based Data Management: from Theory to Practice
- Query Processing in Expressive Description Logics

- Query Answering under Access Limitations
- Natural Language Access to Ontologies
- Integration and Composition of Web Services
- Multilingual Access to Library Catalogues
- Multilingual Interactive Question Answering
- Analysis of Web 2.0 and 3.0 technologies to support online learning communities
- Analysis of the adoption of virtual reality to support learning activities

In addition, PhD students, in accordance with their PhD supervisor, may propose their own research ideas as long as they are connected with the research conducted within the three main areas.

GENERAL PEDAGOGY, SOCIAL PEDAGOGY AND GENERAL EDUCATION

The PhD Research Programme contains the following research focal points:

- a) the epistemological framework, the areas of research and application areas in the fields of general pedagogy, social pedagogy and teaching;
- b) the scientific contribution of other education disciplines: Sociology, Psychology, Anthropology, Experimental Pedagogy;
- c) the survey models and instruments for pedagogical, sociological and teaching research;
- d) the cultural and communication processes of the New Society;
- e) education during the developing age with regard to various educational contexts (nursery education, primary and secondary education, social services, cultural centres, education systems outside the school system);
- f) the goals, the methods and the instruments of teaching and learning communication in formal and informal education and school systems with a focus on national and European frameworks;
- g) the application of new technologies in the field of education;
- h) "Lifelong Learning": the realization of lifelong learning.

ART. 3 – ADMISSION

Admission to the public competition of the aforementioned PhD Research Programmes (see previous article) is open to all, regardless of sex, age and citizenship, who possess a Master's degree (Laurea specialistica) (according to Ministerial Decree no. 509 of 3.11.1999), an Italian undergraduate degree from the old system or a foreign degree equivalent to the degrees mentioned above.

Applicants who have a foreign degree which has not already been officially recognised as being equivalent to an Italian degree must request recognition in their application for the present competition. In such cases the necessary documents should be enclosed with the application in

order to enable the PhD Course Committee to write a declaration of value of such degree, valid only for the purpose of admission to the public competition the candidate wishes to apply for. In particular, the following documents have to be attached to the application:

- the degree certificate (EU citizens can attach a self-certification according to Presidential Decree no. 445 of December 28, 2000)
- a translation in English of the degree certificate with exams and scores obtained, signed under their own responsibility so as to allow the Course Committee to assess its appropriateness.

Successful applicants who have a foreign degree have to present 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 together with the respective **declaration of value** ("Dichiarazione di valore") **not later than the deadline for enrolment for the PhD Research Programme.**

Admission is also open to those who will finish their degree by the day before the date established for the first test or the evaluation procedure of their degree. In such cases admission will be "conditional" and the candidate will have to present the relative degree certificate or self-certification **one day prior to the test or the evaluation procedure**, otherwise the candidate will not be admitted.

For admission to the PhD course in **COMPUTER SCIENCE**, good knowledge of the English language is required. This will be assessed by the Evaluation Committee during the selection process.

For admission to the PhD course in **GENERAL PEDAGOGY, SOCIAL PEDAGOGY AND GENERAL EDUCATION**, good knowledge of Italian, German and English is required. This will be assessed during the oral part of the entrance exam.

ART. 4 – APPLICATION FOR ADMISSION TO THE PUBLIC COMPETITION

Applications should be made on paper following the template that can be downloaded from the following website: <http://www.unibz.it/en/public/research/phd/prospectivePhdstudents.html>. All necessary documentation must be included.

Applications must be submitted

for the PhD course in **COMPUTER SCIENCE**: to the secretariat of the Faculty of Computer Science of the Free University of Bozen-Bolzano

- by hand from 9.00 to 12.00 and 14.30 to 16.30, building C, office 5.05;
- by post to the following address: Free University of Bozen-Bolzano, Faculty of Computer

Science, Via Sernesi 1, 39100 Bozen-Bolzano (BZ); attn: Ms Sabine Zanin.

Deadline for applications is: **October 23, 2009**. The receipt date will be the "arrived by" date stamp used by the Faculty Secretariat. The date of the postmark will not be considered.

for the PhD course in **GENERAL PEDAGOGY, SOCIAL PEDAGOGY AND GENERAL EDUCATION**: to the secretariat of the Faculty of Education of the Free University of Bozen-Bolzano

- by hand from Monday to Friday, 9.00 to 12.00 and 14.00 to 16.00;
- by post to the following address: Free University of Bozen-Bolzano, Faculty of Education, Viale Stazione 16, 39042 Brixen-Bressanone (BZ); attn: Ms Paola Bassanello.

Deadline for applications is: **October 19, 2009**. The receipt date will be the "arrived by" date stamp used by the Faculty Secretariat. The date of the postmark will not be considered.

ART. 5 – SELECTION PROCEDURE

COMPUTER SCIENCE

There is no entrance exam.

The selection procedure consists of:

- Evaluation of the applicant's qualifications
- Knowledge of the English language

The selection is based on the evaluation of each applicant's profile as specified in their CV stating: (a) final mark and/or average marks of a Master's degree (Laurea specialistica), Italian degree of the old system or equivalent qualification, (b) exams passed and other exams taken, (c) any publications, (d) work experience and any research carried out, (e) proof of knowledge of the English language.

As far as English language knowledge is concerned, the applicant may certify (i) courses followed at high school, university or private institutes with relative marks, (ii) periods spent abroad in English-speaking countries with details of activities carried out there, (iii) further proof of knowledge, such as having attended secondary school in English.

Up to three letters of reference may be enclosed with the application form from work or research supervisors detailing work carried out and the quality of the same.

The Evaluation Committee will choose applicants for the PhD Research Programme according to a comparative assessment of:

- the level of the applicant's knowledge of the English language and subsequently

- awarding specific marks to each of the documents enclosed by the candidate to support his/her application. A maximum of 50 points will be awarded for the class and/or average marks of a Master's degrees (Laurea specialistica), an Italian degree of the old system or equivalent qualification, up to a maximum of 10 points for each publication, up to a maximum of 5 points for each work or research experience, up to a maximum of 30 points for the general evaluation of the applicant's CV.

Points awarded will then be totalled. The final mark of each applicant will be equal to the totalled marks or, if this exceeds 100 points, equal to 100.

Those candidates considered suitable after assessment will have been awarded a minimum mark of 60/100.

The rank list of the successful candidates for admission with or without a grant, and for the candidates on the waiting list who will be able to enrol if a successful candidate gives up his/her place, will be drawn up following the total marks obtained in the assessment. If two or more candidates have the same score, the older candidate will have priority. Should candidates be the same age, a lot will be drawn to decide on the allocation of places.

The date on which applicants' evaluations will take place is posted on the following website: <http://www.unibz.it/en/public/research/phd/prospectivePhdstudents.html>

GENERAL PEDAGOGY, SOCIAL PEDAGOGY AND GENERAL EDUCATION

Admission to the course is based on a comparative assessment by examination, consisting of a written and an oral exam aimed at assessing the preparation and aptitude of the candidate for scientific research and assessing his/her knowledge of Italian, German and one or more other languages.

Those candidates who have successfully passed the written exam, which will ask them to outline a research project in one of the thematic areas of the PhD programme, will be admitted to the oral exam. A pass in the written test will be a mark of not less than 40/60. Candidates can choose to sit the written test in either Italian or German.

The oral exam consists of the following:

- a discussion of the written exam and research methodology;
- an oral test in order to assess knowledge of the Italian language (for German native speakers) and the German language (for Italian native speakers);
- an oral exam to test knowledge of a third language.

Those who obtain 40/60 or more in the oral exam will be deemed successful.

When the entrance examinations are over, the Evaluation Committee will draw up a rank list including the comparative assessment.

The Evaluation Committee will select candidates until all available places have been filled. If a successful candidate withdraws, the next candidate on the rank list will be offered the place.

Exams will take place on the following days:

- **Written exam – October 29, 2009**
- **Oral exam – October 30, 2009**

The time and venue of the entrance exams will be posted on the website:
<http://www.unibz.it/en/public/research/phd/prospectivePhdstudents.html>

ART. 6 – EVALUATION COMMITTEE

The President of the University Council, upon the advice of the PhD Course Committee and the Academic Senate, appoints the Evaluation Committee.

Each committee consists of three members chosen from tenured professors and university researchers who are experts in the scientific areas of the PhD Research Programme. The Committee may also include two experts from public and private national and international corporations or research institutes.

The President of the Evaluation Committee will be the most senior Full Professor; in the event of equal ranking, the oldest professor. In the absence of Full Professors, the President will be the most senior Associate Professor; in the event of equal ranking, the oldest professor. For every member of the Evaluation Committee, the PhD Course Committee will appoint a deputy.

After the evaluation of the entrance exams, the Evaluation Committee will draw up a rank list, based on the number of points the candidates obtain from the assessment of their qualifications and the written and oral exams.

The final ranking of candidates will be posted on the official notice board of the Free University of Bozen-Bolzano and on the website:
<http://www.unibz.it/en/public/research/phd/prospectivePhdstudents.html>

ART. 7 – ADMISSION TO THE PHD COURSE

Applicants will be admitted to the PhD Research Programme according to their order on the rank list until all available places have been filled.

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

If a successful applicant withdraws or is excluded during the first quarter of the first year of the course, the PhD Course Committee may decide to fill the vacant place with the next candidate on the rank list.

ART. 8 – ENROLMENT PROCEDURE

Candidates admitted through the rank lists must submit their enrolment form, which can be downloaded from <http://www.unibz.it/en/public/research/phd/prospectivePhdstudents.html>, with all the necessary documents by **Friday December 18, 2009**.

If enrolment has not been completed by this date, the candidate loses his/her study place and his/her right to enrol. Applications can be submitted as follows:

by post (the date of the postmark will not be considered):

- for the PhD course in **COMPUTER SCIENCE**: to the Student Secretariat of the Free University of Bozen-Bolzano, Bolzano campus, via Sernesi, 1, 39100 Bozen-Bolzano.
- for the PhD course in **GENERAL PEDAGOGY, SOCIAL PEDAGOGY AND GENERAL EDUCATION**: to the Student Secretariat of the Free University of Bozen-Bolzano, Bressanone campus, Viale Stazione, 16, 39042 Brixen-Bressanone.

by hand during opening hours, which can be found by consulting: <http://www.unibz.it/en/students/welcome/default.html>

Candidates who intend to withdraw from the course and not enrol, or waive their right to a grant are requested to write to the Research Office (by email or fax) as soon as possible and in any case before the enrolment deadline.

Email: researchoffice@unibz.it

Fax: 0039 0471 012609

ART. 9. TUITION FEES

For the PhD courses – 25th cycle the following tuition fees should be paid at the time of enrolment:

- provincial tax for the right to study in higher education, which for the 2009/2010 academic year amounts to **€ 129.50**
- duty stamp of **€ 14.62** (which should be affixed to the enrolment form)

A refund of the fees paid cannot be claimed in case of suspension or withdrawal from studies.

ART. 10 GRANTS

Grants are assigned following the rank list drawn up by the Evaluation Committee. If the candidates have equal merit, the student's financial situation will be evaluated according to current laws. If a candidate decides to forego a grant, the next enrolled candidate on the rank list will be offered the grant.

The total study grant amounts to **€ 51,000** for the three years of the course.

The study grant is also subject to national insurance contributions (INPS) according to current laws.

The grant is paid in monthly instalments, according to the conditions chosen by the PhD student when completing the enrolment form.

The study grant is awarded for the entire duration of the PhD Research Programme except in case of suspension or withdrawal from studies. Grants will be reconfirmed from one year to the next, unless the PhD Course Committee decides otherwise.

In the event of withdrawal from the course or suspension of a PhD student place with a grant, the remaining grant will be redistributed, according to the order of the rank list (see above, paragraph 1), to the first non-grant-maintained and enrolled PhD student.

Grant holders are not allowed to hold employment at the University.

The amount of the grant may be increased for periods spent abroad. Normally this increase is paid at the end of the time spent abroad. The grant will be increased by 50% in proportion to the period spent abroad and will be applied to any period spent continuously abroad for no less than 15 days and no more than 18 months.

ART. 11 – RIGHTS AND DUTIES OF PHD STUDENTS

PhD students are obliged to attend the PhD courses and to carry out research activities according to the schedules and the regulations laid down by the PhD Course Committee.

Grants financed by external bodies where specific research is required limit the grant holder to carry out only that specific work.

ART. 12 – AWARD OF THE PHD DEGREE

The PhD degree will be awarded to students who pass the final examination, which takes place before an Examination Committee appointed by a Decree of the President of the University Council, upon the advice of the Academic Senate and the PhD Course Committee of the course in which the student is enrolled.

The Examination Committee consists of three members chosen from tenured professors and university researchers who are experts in the scientific areas of the PhD Research Programme. At

least two members, who are not members of the PhD Course Committee, must be from other Italian or foreign universities which are not involved in the PhD Research Programme.

A further two experts from public or private national or international research institutes may be called to sit on the committee. The President of the committee will be appointed according to the criteria laid out in article 7.

ART. 13 – DATA PROTECTION ACT

The Administration of the Free University of Bozen-Bolzano, in accordance with law no. 196/2003 and subsequent amendments, will use the applicants' personal data only for the selection procedure and for institutional purposes.

In observance of the above mentioned law, participation in the selection requires the applicant to consent tacitly to the publication of his/her personal data and the data concerning the results of the selection procedure on the website of the Free University of Bozen-Bolzano.

ART. 14 – REFERRAL RULE

For matters not explicitly mentioned in the present competition announcement, art. 4 of law no. 210 of July 3, 1998, the Ministerial Decree no. 224 of April 30, 1999 and the Regulation for PhD Research Programmes of the Free University of Bozen-Bolzano shall apply.

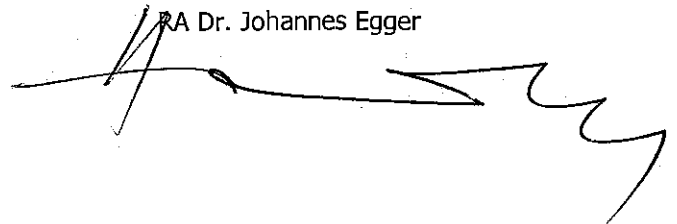
ART. 15 – ADMINISTRATOR RESPONSIBLE FOR PROCEDURE

According to law no 241 of August 7, 1990 and subsequent amendments, the administrator responsible for this procedure is dott. Cristina Pasini, Research Office, Spitalgasse/Via Ospedale 8, I-39100 Bozen-Bolzano – Tel. +39 0471 012000, Fax +39 0471 012009, E-mail: research@unibz.it.

Bozen-Bolzano, 27 May 2009

The President

RA Dr. Johannes Egger

A handwritten signature in black ink, appearing to be 'Johannes Egger', written over a horizontal line.