



FREIE UNIVERSITÄT BOZEN
LIBERA UNIVERSITÀ DI BOLZANO
FREE UNIVERSITY OF BOZEN · BOLZANO

Public Competition Announcement for PhD courses – 24th cycle

DECREE NO. 14 /2008

THE PRESIDENT OF THE COUNCIL OF THE FREE UNIVERSITY OF BOZEN-BOLZANO

- Given the Statute of the Free University of Bozen-Bolzano;
- Given 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;
- Given the Ministerial Decree no. 224 of April 30, 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 April 9, 2001 and subsequent amendments on the general criteria for uniform treatment regarding the right to higher education;
- Given 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;
- Given the reports of the Internal Evaluation Committee dated March 4, 2008 on the requirements for the PhD courses proposed;
- Given the reports of the Academic Senate no. 426/2008 and no. 427/2008 on the institution of the PhD courses proposed;
- Given the resolutions no. 184/2008 and no. 185/2008 of the University Council concerning the approval of the PhD courses proposed;
- Given the reports of the Academic Senate of the Free University of Bozen-Bolzano no. 419/2008 and 441/2008 on the enrolment fees and grants for the PhD courses;
- Given the resolution no. 186/2008 and the emergency court order no.9/2008 of the President of the University Council concerning the regulation of enrolment fees and grants for PhD courses;

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 24th cycle, academic year 2008/2009.

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 of the Free University of Bozen-Bolzano.

GENERAL PEDAGOGY, SOCIAL PEDAGOGY AND GENERAL EDUCATION

Duration: 3 years

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

Official languages of course: Italian and German

A public competition for the allocation of 8 places is announced of which 5 will be covered by grants of the Free University of Bozen-Bolzano.

Art. 2 – PhD Course Programmes

COMPUTER SCIENCE

The research at the Faculty of Computer Science is organized in three different research areas. Research groups are working on research topics within these areas as well as on multidisciplinary topics 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
 - Cooperative systems and interoperability

For their theses PhD students should investigate research questions that arise and are investigated within the 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

In addition, PhD students - in accordance with their PhD Co-ordinator - 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 point:

- a) the epistemological framework, the areas of research and application areas in the fields of general pedagogy, the social pedagogy and the didactics;
- b) the scientific contribute of other education disciplines: Sociology, Psychology, Anthropology, Experimental Pedagogy;
- c) the survey models and instruments for the pedagogical, sociological and didactical research;
- d) the cultural and communication processes of the New Society;
- e) the education during the developing age with regard to various education contexts (Kinder garden, Primary and Secondary school, social services, cultural centres, education systems outside the school system);
- f) the goals, the methods and the instruments of didactical communication at formal and informal education and school systems with special regard to 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 (without limitations of sex, age and citizenship) those who possess a Master degree (Laurea specialistica) (according to Ministerial Decree no. 509 of 3.11.1999), a graduate degree of the old regulation or a foreign degree equivalent to the degrees above mentioned.

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, 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.

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 within the date established for the first test or the evaluation procedure of their degree. In such cases admission will be permitted "on condition" and the candidate will be obliged to present the relative degree certificate or self-certification (according to Presidential Decree no. 445 of December 28, 2002, only EU citizens) **one day prior of the thest or the evaluation procedure of the title,** otherwise the candidate will not be admitted.

For the admission to the PhD course in **COMPUTER SCIENCE** good knowledge of the English language is required. The Evaluation Committee will evaluate the applicants' knowledge during the selection process.

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

Art. 4 – Application for admission to the Public Competition

Application should be made on paper with the documents, as requested on the form, to be enclosed. The form can be downloaded from the following website: <http://www.unibz.it/research/phdcourses/index.html?LanguageID=EN>

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

- hand delivered from 9.00 to 12.00 hrs and 14.30 to 16.30 hrs;
- by mail to the following address: Free University of Bozen-Bolzano, Faculty of Computer Science, Piazza Domenicani 3, 39100 Bozen-Bolzano (BZ); to the attention of Federica Cumer

The application must be submitted no later than **October 20, 2008**.

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

- hand delivered from Monday to Friday from 9.00 to 12.00 hrs and 14.00 to 16.00 hrs;
- by mail to the following address: Faculty of Education, Viale Stazione 16, 39042 Brixen-Bressanone (BZ)

The application must be submitted no later than **September 26, 2008**.

ART. 5 – SELECTION

COMPUTER SCIENCE

No entrance exams are foreseen.

The selection procedure consists of:

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

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

As regards to the proof of knowledge of the English language, 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 higher education institutes in the English language.

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

The Evaluation Committee will choose applicants for the PhD Research Programme according to 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 Master degrees (Laurea specialistica), degrees of the old regulation or equivalent qualification, up to a maximum of 10 points for each publication, up to a maximum of 5 points for each case of work or research experience, up to a maximum of 30 points for the general evaluation of the applicant's curriculum vitae.

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

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

The ranking list of the successful candidates for admission with or without a grant, and for the admission of potential candidates succeeding after the withdrawal of a successful candidate, will be decided according to the final marks obtained in the assessment as explained above. In the event of two or more candidates being equally worthy of admission the age of the candidate will be used as a criteria for selection. Should candidates be the same age, a lot will be drawn to decide on the allocation of places.

The date on which the evaluation of the applicants profile will take place is posted on the following website: <http://www.unibz.it/research/phdcourses/index.html?LanguageID=EN>

GENERAL PEDAGOGY, SOCIAL PEDAGOGY AND GENERAL EDUCATION

Admission to the course is decided after comparative assessment by examination, consisting of a written and an oral exam aimed at verifying the preparation and aptitude of the candidate for scientific research and knowledge of Italian, German and one or more other languages.

Those candidates who have successfully passed the written exam will be admitted to the oral exam – the written test will be on a current cultural theme/problem – with a mark of not less than 40/60. The written test may be done in Italian or German according to the candidate's preference.

The oral exam will be as follows:

- (a) a discussion of the written exam and general themes;
- (b) an oral test, in order to verify the level of knowledge of the Italian language (for mother-tongue German speakers) and the German language (for mother-tongue Italian speakers);
- (c) 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 candidates.

When the entrance examinations are over, the Evaluation Committee will draw up a ranking list (graduatoria) 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 according to the ranking list will be offered the place.

Exams will take place on the following days:

- **Written exam – October 15, 2008**
- **Oral exam – October 16, 2008**

The time and venue of the entrance exams will be posted on the website:
<http://www.unibz.it/research/phdcourses/index.html?LanguageID=EN>

ART. 6 – EVALUATION COMMITTEE

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

It 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 a Full Professor with seniority, in the event of equal ranking, the oldest professor. In the absence of Full Professors, the President may be an Associate Professor with seniority, 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 ranking list, based on the number of points which the candidates reached according to the marks obtained at the assessment of qualifications and at the exams.

The final ranking of candidates will be posted on the bulletin board of the Free University of Bozen-Bolzano and on the website:
<http://www.unibz.it/research/phdcourses/index.html?LanguageID=EN>

With this posting, the notification obligation will be considered as having been fulfilled.

ART. 7 – ADMISSION TO THE PHD COURSE

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

If a successful applicant withdraws before the beginning of the course, the next applicant on the ranking 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 ranking list.

ART. 8 – ENROLMENT PROCEDURE

- Within **Friday, December 19, 2008** applicants must submit the Enrolment application form – the form can be downloaded from the website <http://www.unibz.it/research/phdcourses/index.html?LanguageID=EN> - and all the documents requested in it. The application has to be submitted

by mail:

- for the PhD course in **COMPUTER SCIENCE**: to the Student Secretariat of the Free University of Bozen-Bolzano, Bolzano campus, via Sernesi, 1
- 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

or hand delivered:

- according to the opening hours shown in <http://www.unibz.it/students/secretariat/openinghours/index.html?LanguageID=EN>

ART. 9. TUITION FEES

For the PhD courses – 23rd cycle the following fees are to be paid:

- Enrolment fee of **€ 1.150,00** (including tax): this amount should be paid in one instalment by all students, except those who have been awarded a grant either by the Free University of Bozen-Bolzano or an external institution
- provincial tax for the right to a study course of higher education, which for the academic year 2007/2008 amounts to **€ 129,50**

Disabled students with a disability up to or exceeding 66% are eligible for total exemption from fees (except for the provincial tax): the disability certificate, issued by the health authorities, should be presented at the beginning of the academic year.

Enrolment can only be finalised once the tuition fee for the first year has been paid.

Delay in paying for the higher courses results in a fine being levied according to the fee regulation. Refund of the fees paid can not be claimed in case of suspension or withdrawal from studies.

ART. 10 GRANTS

Grants are assigned on the basis of the ranking list drawn up by the Evaluation Committee. If the candidates are equally worth, the student's economic situation will be evaluated according to the law currently in force. If a candidate renounces a grant, the next enrolled candidate on the ranking list will be offered the grant.

The total study grant, determined according to art. 1, paragraph 1 letter a) of the Law no. 315 of August 3, 1998, and subsequent amendments, amounts up to **€ 45.000,00** for the three years of the course and is subject to possible changes of the price index given by the Provincial Statistics Institute (ASTAT).

The study grant is also subject to national insurance contributions (INPS) according to the law currently in force.

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 ranking list (see above, paragraph 1), to the first non-grant-maintained and enrolled PhD student.

Grant holders categorically may not hold employment at the university. The holder of a study grant is exempt from paying enrolment fees.

The amount of the grant may be increased for periods 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 the work.

ART. 12 – AWARD OF THE PHD DEGREE

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

The Commission 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 universities, also foreign, which are not involved in the PhD Research Programme.

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

ART. 13 – PERSONAL DATA

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 – RESPONSIBLE FOR PROCEDURE

According to law no 241 of August 7, 1990 and subsequent amendments, the responsible for the procedure is Dr. Kathrin Staffler, Head of the 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 2008

The President

RA Dr. Johannes Egger