ANNEX 1 to the Ph.D. Call for admission to the Doctoral Programmes
Cycle 30th – Academic Year 2014/2015

Summary

BIOMEDICAL AREA ....................................................................................................................................................... 2
  DOCTORAL PROGRAMME IN DRUG RESEARCH AND INNOVATIVE TREATMENTS ............................................................. 2
  TUSCAN PH.D. IN NEUROSCIENCES ................................................................................................................................ 3
  DOCTORAL PROGRAMME IN BIOMEDICAL SCIENCES ...................................................................................................... 5
  DOCTORAL PROGRAMME IN CLINICAL SCIENCES ........................................................................................................... 7

SCIENTIFIC AREA ........................................................................................................................................................... 8
  DOCTORAL PROGRAMME IN BIOLOGY ............................................................................................................................ 8
  DOCTORAL PROGRAMME IN PHYSICS AND ASTRONOMY ................................................................................................ 9
  INTERNATIONAL DOCTORATE IN ATOMIC AND MOLECULAR PHOTONICS ............................................................... 10
  INTERNATIONAL DOCTORATE IN STRUCTURAL BIOLOGY ............................................................................................. 11
  DOCTORAL PROGRAMME IN MATHEMATICS, COMPUTER SCIENCE, STATISTICS ................................................................ 12
  DOCTORAL PROGRAMME IN CHEMICAL SCIENCES ....................................................................................................... 13

SOCIAL SCIENCES AREA ............................................................................................................................................ 14
  DOCTORAL PROGRAMME IN LEGAL SCIENCES .............................................................................................................. 14

TECHNOLOGICAL AREA ............................................................................................................................................. 15
  DOCTORAL PROGRAMME IN SUSTAINABLE MANAGEMENT OF AGRICULTURAL RESOURCES, FORESTRY AND FOOD .......................................................... 15
  DOCTORAL PROGRAMME IN AGRICULTURAL AND ENVIRONMENTAL SCIENCES ........................................................ 16
  DOCTORAL PROGRAMME IN ARCHITECTURE ................................................................................................................ 18
  DOCTORAL PROGRAMME IN INFORMATION ENGINEERING ............................................................................................ 19
  DOCTORAL PROGRAMME IN INDUSTRIAL ENGINEERING .............................................................................................. 22
  INTERNATIONAL DOCTORATE IN CIVIL AND ENVIRONMENTAL ENGINEERING .............................................................. 24

HUMANITIES AREA ...................................................................................................................................................... 25
  DOCTORAL PROGRAMME IN PHILOLOGY, ITALIAN LITERATURE, LINGUISTICS ............................................................... 25
  DOCTORAL PROGRAMME IN COMPARATIVE LANGUAGES, LITERATURE AND CULTURE ............................................. 26
  DOCTORAL PROGRAMME IN EDUCATION SCIENCES AND PSYCHOLOGY ....................................................................... 28
  DOCTORAL PROGRAMME IN HISTORY OF ART AND PERFORMING ARTS .......................................................................... 29
  DOCTORAL PROGRAMME IN HISTORICAL STUDIES ........................................................................................................ 31
BIOMEDICAL AREA

DOCTORAL PROGRAMME IN DRUG RESEARCH AND INNOVATIVE TREATMENTS
Coordinator Prof. Elisabetta Teodori

Administrative office: Department of Neuroscience, Psychology, Drug Research and Child Health (NEUROFARBA)

Curricula:

1) Pharmaceutical Sciences
2) Pharmacology, Toxicology and Innovative Treatments

No. of Positions: 9

Scholarships: 7
- 5 University of Florence
- 1 MIUR Fondo Giovani - Topic n.1 ”Human health (study and treatment of cancers and degenerative diseases with new approaches based on human genomics)”.
- 1 University Hospital Meyer

Positions with no scholarship: 2

Evaluation of applicants:
applicants will be selected by written and oral examination (cfr. Article 12, paragraph 1, sub-paragraph a) of Doctoral Regulation n. 670 of July 4th 2013).
With regards to the written examination the applicants will be asked to discuss a particular theme choosing one of the texts proposed.

Themes for the examinations relating to the curriculum in Pharmacology, Toxicology and Innovative Treatments:
The written examination will be characterised by the completion of an essay on general pharmacology. The oral examination will focus on the discussion of the theme chosen by the applicant, as well as the discussion of any research project (optional), that the applicant may present at the moment of the oral examination.

Themes for the examinations relating to the curriculum of the Pharmaceutical Sciences:
The written examination will be characterised by the completion of an essay on design and synthesis, or molecular modelling or analysis or pharmaceutical technology, of pharmacologically active molecules of natural or synthetic origin. The oral examination will be centered on the discussion of the theme chosen by the applicant as well as the discussion of any research project (optional), that the applicant may present at the moment of the oral examination.

Foreign language in which the examinations can be done: English.

Documents to be attached to the application form:
research project (optional).
Tuscan Ph.D. in Neurosciences
Coordinator Prof. Renato Corradetti

Regione Toscana Pegaso Project – Partner Universities: University of Florence, University of Pisa, University of Siena.

Administrative office: Department of Neuroscience, Psychology, Medicine and Child Health (NEUROFARBA)

No. of Positions: 13

Scholarships: 10
  3 University of Florence
  1 MIUR Fondo Giovanni - Topic n. 1 “Human health (study and treatment of cancers and degenerative diseases with new approaches based on knowledge of the human genome)”.
  6 Regione Toscana Pegaso Scholarships 2014

Positions with no scholarship: 3

Evaluation of applicants:
applicants will be selected by oral examination (cfr. Article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation n. 670 of July 4th 2013). Selection of applicants will follow a two-step evaluation (see scheme below).

Step 1) Preselection for admission to the oral examination:
The Committee will evaluate:
1) CV (European format) with indication of qualifications (e.g. awards, certificates of research experience and/or attendance of courses relevant to Neuroscience) and all publications of the applicant.
2) Publications by the applicant attached to the application. Publications will contribute for a maximum of 3 (three) points. Technical reports and Specialization thesis are not evaluated and should not be uploaded.
3) Research project in English. In this phase the project will be evaluated for its coherence with the Doctorate in Neurosciences and for its feasibility in general and within the Tuscan PhD in Neurosciences Program. (Note: the project presented will not necessarily be accepted as the thesis project for the applicant, should he/she be accepted in the PhD Program).

Applicants receiving a score of at least 30, or erase, will be admitted to the oral examination.

Step 2) Oral examination:
The oral examination will focus on a discussion on the research project presented. Good knowledge of spoken and written English is required.

Foreign language in which the examinations can be done: English.

Applicants receiving a score of at least 50, or erase, in the oral examination will enter in the final ranking list.

Evaluation steps:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximal score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preselection:</td>
<td></td>
</tr>
<tr>
<td>Curriculum vitae, qualifications, publications, Research Project redaction</td>
<td>40/120</td>
</tr>
</tbody>
</table>

Applicants obtaining a score of at least 30/120, or erase, in the evaluation of CV, publications and redaction of the research project will be admitted to the oral examination.
Oral examination: discussion of the research project to assess applicant's aptitude for research

The oral examination is passed with a score of at least 50 points or erase.

Documents to be attached to the application:
- CV (European format) with indication of qualifications and all publications of the applicant.
- Publications by the applicant submitted for evaluation in step 1.
- Research project in English (six pages maximum including references).

Filename of files to be uploaded should include the applicant's name.
DOCTORAL PROGRAMME IN BIOMEDICAL SCIENCES
Coordinator: Prof. Persio Dello Sbarba

Administrative office: Department of Experimental and Clinical Biomedical Sciences

Curricula:
1. Human Morphology and Morphogenesis
2. Functional Biology of Biomolecules and Biosystems
3. Physiological and Nutritional Sciences
4. Experimental and Clinical Oncology
5. Endocrinological, Molecular and Regenerative Biotechnologies
6. Biomedical Sciences of Developmental Age

Number of positions: 13

Scholarships: 10
5 University of Florence
1 MIUR Fondo Giovani - Topic n. 1” Human Health (study and treatment of neoplastic and degenerative diseases with new approaches based on human genomics)”.
1 Department of Experimental and Clinical Medicine
3 Department of Experimental and Clinical Biomedical Sciences “Mario Serio” - Tumour Institute of Tuscany (ITT)

One scholarship is reserved to applicants who have been obtained the qualifications for admission to the PhD courses of foreign Universities according to article 1, paragraph 2, of Ph.D. call.

Positions with no scholarship: 3

Evaluation of applicants:
applicants will be selected following oral examination and evaluation of curriculum vitae, publications and other qualification documents, as well as the research project, according to the following scheme (article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation n. 670 of July 4th 2013).

Scoring criteria:

<table>
<thead>
<tr>
<th>parameter</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>curriculum vitae, publications and other qualification documents (if any)</td>
<td>20/120</td>
</tr>
<tr>
<td>research project</td>
<td>40/120</td>
</tr>
<tr>
<td>oral examination: discussion of the project and publications (if any)</td>
<td>60/120</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum score of 80/120

Documents to be attached to the application form:
- curriculum vitae et studiorum;
- publications and other qualification documents (if any);
- research project, written in English and of maximum 12,000 characters including spaces, which must include summary, introduction, methodology, expected results and references. The project must refer specifically to one or more of the working themes listed below.
Themes to which the research projects of the applicants must be linked:

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Theme</th>
</tr>
</thead>
</table>
| Human Morphology and Morphogenesis              | 1) Systematic and topographic anatomy  
2) Applied anatomy: diagnostic imaging and semeiotics  
3) Morpho-functional histology and cytology  
4) Embryology and organogenesis  
5) Histo-chemistry |
| Functional Biology of Biomolecules and Biosystems| 1) Protein biophysics  
2) Cell biology of amyloids  
3) Biophysics of lipid bilayers and biomembranes  
4) Yeast proteomics  
5) Anti-aggregation power of natural compounds |
| Physiological and Nutritional Sciences          | 1) Muscle biophysics  
2) Neurophysiology  
3) Pathophysiology of nutrition  
4) Adaptation to muscle activity and sport |
| Experimental and Clinical Oncology              | 1) Mechanisms of cancer onset and progression  
2) Cancer invasion and metastasis  
3) Cancer stem cells: characterization and targeting  
4) Novel strategies for cancer treatment  
5) Improvement of clinical handling of oncologic patients  
6) Innovative approaches to cancer diagnosis and prognosis |
| Endocrinological, Molecular and Regenerative Biotechnologies | 1) Genetic aspects of male infertility  
2) Control mechanisms of human spermatogenesis  
3) Role of oxidative stress in male infertility  
4) DNA fragmentation in human spermatozoa: biochemical mechanisms and clinical meaning and significance  
5) Pathophysiolo of fat tissue |
| Biomedical Sciences of Developmental Age        | 1) Clinical biochemistry  
2) Pediatrics  
3) Hygiene and Public Health  
4) Orthodontics  
5) Preventive medicine |
DOCTORAL PROGRAMME IN CLINICAL SCIENCES
Coordinator Prof. Giacomo Laffi

Administrative office: Department of Experimental and Clinical Medicine

Curricula:

1) Clinical Pathophysiology and of Aging and Nursing Sciences
2) Clinical and Experimental Medicine
3) Pathology and Clinic of the Locomotor Apparatus and the Calcified Tissues
4) Anaesthetic and Surgical Sciences
5) Psychology and Pain Management

No. of Positions: 8

Scholarships: 6 University of Florence

Positions with no scholarship: 2

Evaluation of applicants:
applicants will be selected by written and oral examination (article 12, paragraph 1, sub-paragraph a) of Doctoral Regulation n. 670 of July 4th 2013).

Foreign language in which the written examination can be done: English.
SCIENTIFIC AREA

DOCTORAL PROGRAMME IN BIOLOGY
Coordinator Prof. Stefano Turillazzi

Administrative office: Department of Biology (BIO)

Curricula:
1) Ethology and Ecology
2) Anthropology and Primatology
3) Plant Biology
4) Genetics and Microbiology

No. of Positions: 8

Scholarships: 4 University of Florence

Positions with no scholarship: 4

Evaluation of applicants:
Applicants will be selected by written and oral examination (article 12, paragraph 1, sub-paragraph a) of Doctoral Regulation n. 670 of July 4th 2013).

Written examination: consists of a summary and critical analysis (not more than 2 pages) of a printed scientific publication, in English, which each applicant can choose from among three proposals for each Ph.D. curriculum.

Oral examination: discussion of the written examination and in-depth analysis of the themes expressed in the key words of the publication chosen and the research lines envisaged in the curriculum chosen by the applicant.

The examinations may also be taken in English.

Documents to be attached to the application form:
- curriculum vitae;
- list of exams taken with the relative grades;
- title of the thesis.
DOCTORAL PROGRAMME IN PHYSICS AND ASTRONOMY
Coordinator Prof. Roberto Livi

Administrative office: Department of Physics and Astronomy

Curricula:
1) Physics
2) Astronomy

No. of Positions: 11

Scholarships: 9
- 4 University of Florence
- 2 National Institute for Nuclear Physics (INFN)
- 2 National Institute for Astrophysics (INAF). The scholarships will be aimed at studies of:
  - Observational astrophysics with large telescopes,
  - Development and optimization of adaptive optical systems for ELT.
- 1 MIUR Fondo Giovani – Topic n. 8 “ICT and electronic components”.

Positions with no scholarship: 2

Evaluation of applicants:
applicants will be selected by written and oral examination with evaluation of their curriculum and any additional qualification documents (article 12, paragraph 1, sub-paragraph b) of Doctoral Regulation n. 670 of July 4th 2013).

The examinations may be taken in the following foreign language: English.

Documents to be attached to the application form:
- curriculum vitae et studiorum;
- declaration in lieu of certification of the list of exams taken with grades and title of the Master thesis (or equivalent degree);
- list of publications;
- qualification documents.
INTERNATIONAL DOCTORATE IN ATOMIC AND MOLECULAR PHOTONICS
Coordinator Prof. Roberto Righini

Administrative office: Department of Physics and Astronomy

Partner Institutions: Universidad Complutense de Madrid, Imperial College of London

No. of Positions: 8

Scholarships: 6
1 University of Florence
5 European Laboratory for Non-linear Spectroscopy (LENS)

Positions with no scholarship: 2

Evaluation of applicants:
applicants will be selected by: a) oral examination, which will also include the discussion and evaluation of their research project; b) evaluation of their curriculum and of any other qualification document. The score system is specified below (article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation of July 4th 2013. The oral examination will be carried out in English.

In case the Academic Board establishes that it is not possible for foreign applicants or Italians resident abroad to undertake in person the oral examination at LENS on the day specified in the notice, the Academic Board may decide to carry on the examination on the same day via direct computer connection (see article 4 of the PhD Call).

Scoring of applicants:

<table>
<thead>
<tr>
<th>parameter</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral examination</td>
<td>60/120</td>
</tr>
<tr>
<td>Research project</td>
<td>40/120</td>
</tr>
<tr>
<td>Curriculum vitae, qualification documents and publications (if any)</td>
<td>20/120</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum score of 80/120

Documents to be attached to the application form:
- research project, concerning a possible topic of research to be carried on in the doctorate period (two A4 pages);
- curriculum vitae;
- list of publications;
- any additional qualification document.

The research project, the curriculum vitae and the qualification documents must be written in English.
INTERNATIONAL DOCTORATE IN STRUCTURAL BIOLOGY
Coordinator Prof. Claudio Luchinat

Administrative office: Magnetic Resonance Center (CERM)

No. of Positions: 8

Scholarships: 4
  1 University of Florence
  3 Interuniversity Consortium for Magnetic Resonance of MetalloProteins (CIRMMP)

Positions with no scholarship: 4

To the successful applicants without a scholarship, contracts of apprenticeship ("Apprendistato di Alta Formazione e Ricerca") may be offered, whenever available, according to article 2, paragraph 10 of the PhD Call.

Evaluation of applicants:
applicants will be selected by oral examination, evaluation of their curriculum, of any other qualification document, and of their research project, through a score system as specified below (article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation n. 670 of July 4th 2013).

The evaluation will be held in English.

Scoring of applicants:

<table>
<thead>
<tr>
<th>parameter</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum vitae, any other qualification document, research project</td>
<td>60/120</td>
</tr>
<tr>
<td>Oral examination</td>
<td>60/120</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum score of 80/120

Documents to be attached to the application form:
- curriculum vitae;
- any additional qualification document and publications;
- research project.

All the documentation requested must be written in English (on pain of exclusion).

The research project will be discussed and evaluated during the oral examination. The project must describe a possible research activity to develop in the three years of the doctorate.
DOCTORAL PROGRAMME IN MATHEMATICS, COMPUTER SCIENCE, STATISTICS
Coordinator Prof. Graziano Gentili

Administrative office: Department of Mathematics and Computer Science “U. Dini” (DIMAI)

Partner Institutions of the Consortium: University of Perugia, Istituto Nazionale di Alta Matematica “F. Severi”

Curricula:
1) Mathematics
2) Computer Science
3) Statistics

No. of Positions: 13

Scholarships: 11
- 6 University of Florence
- 3 University of Perugia
- 2 Istituto Nazionale di Alta Matematica “F. Severi”

Positions with no scholarship: 2

Admission examination:
A written and oral examination, including the evaluation of the curriculum, of possible qualification documents and of the research project (article 12, paragraph 1, sub-paragraph b) of Doctoral Regulation of July 4th 2013).

Documents to be attached to the application form:
- curriculum vitae;
- any additional qualification document;
- research project.

The research project, of maximum 5,000 characters, will be discussed and evaluated during the oral examination, and will contribute to the evaluation of the attitude of the applicant towards research.

Foreign language for the written examination: English.
DOCTORAL PROGRAMME IN CHEMICAL SCIENCES
Coordinator Prof. Andrea Goti

Administrative office: Department of Chemistry “Ugo Schiff”

Curricula:
1) Chemistry
2) Science for the Conservation of Cultural Heritage

No. of Positions: 12

Scholarships: 6
5 University of Florence
1 MIUR Fondo Giovani - Topic n. 2 “Trial of the pharmaceutical industry particularly through the fine chemical of natural products for new diagnostic applications and novel active substances”.

Positions with no scholarship: 6

To the successful applicants without a scholarship, contracts of apprenticeship ("Apprendistato di Alta Formazione e Ricerca") may be offered, whenever available, according to Article 2, paragraph 10 of the PhD Call.

Evaluation of applicants:
applicants will be selected by oral examination, evaluation of their curriculum, of qualification documents and of their research project through a score system as specified below (article 12, paragraph 1, subparagraph c) of Doctoral Regulation of July 4th 2013).

Scoring of applicants:
\[
\begin{array}{|c|c|}
\hline
\text{parameter} & \text{maximum score} \\
\hline
\text{Curriculum Vitae, student career, qualification documents and publications} & 60/120 \\
\text{Oral examination: discussion of the research project, the qualification documents presented and publications} & 60/120 \\
\hline
\end{array}
\]

Applicants who obtain at least 80/120 marks will be admissible according to the final ranking

Documents to be attached to the application form:
- curriculum vitae;
- list of exams taken with the relative grades;
- list of any additional qualification document and scientific publications;
- a suitable research project written in English in no more than 12,000 characters including spaces, comprising abstract, introduction and references, in order to assess the applicant’s aptitude to research;
- title and short summary (maximum five A4 sheets) of the Master thesis.

The possession of these documents must be declared with a self-certification (D.P.R. n. 445/2000).

The oral examination may be done in English. If given in Italian, the oral examination will include an assessment of English language proficiency.
SOCIAL SCIENCES AREA

DOCTORAL PROGRAMME IN LEGAL SCIENCES
Coordinator Prof. Vittoria Barsotti

Administrative office: Department of Legal Sciences (DSG)

Curricula:
1) Comparative Law
2) Public Law – Town Planning Law and Environmental Law
3) Criminal Law and Criminal Procedure
4) Private Law
5) International and European Union Law
6) Theory and History of Law – Theory and History of Human Rights (International) – Authorities in agreement: University of Paraná (Curitiba, Brazil).

No. of Positions: 9

Scholarships: 7 University of Florence

One scholarship is reserved to applicants who have obtained the qualifications for admission to the PhD courses in foreign Universities according to article 1, paragraph 2, of the PhD Call.

Positions with no scholarship: 2

Evaluation of applicants:
applicants will be selected by a written test (in the form of an essay), by oral examination, by evaluation of their curriculum, their other qualification documents and their research project. The essay will cover the topics of each curriculum belonging to the PhD program. Only applicants with a score of 40/60 and above will be admitted to the oral part. At the end of each oral session the examining commission will publicize the results (see Article 12, paragraph 1, sub-paragraph b) of Doctoral Regulation of July 4th, 2013).

Scoring of oral examination:

<table>
<thead>
<tr>
<th>parameter</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral examination, including the assessment of the knowledge of the foreign language, chosen from English, French, German and Spanish</td>
<td>30/60</td>
</tr>
<tr>
<td>Research project and any additional qualification documents</td>
<td>20/60</td>
</tr>
<tr>
<td>Curriculum vitae</td>
<td>10/60</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum total score of 80/120

Documents to be attached to the application form:
- curriculum vitae;
- any additional qualification document and scientific publications;
- abstract of the JD dissertation;
- research project, of at most 5 pages, indicating with sufficient precision the subject, the objectives and the methodology, which will be discussed during the oral examination.
TECHNOLOGICAL AREA

DOCTORAL PROGRAMME IN SUSTAINABLE MANAGEMENT OF AGRICULTURAL RESOURCES, FORESTRY AND FOOD
Coordinator Prof. Leonardo Casini

Administrative office: Department of Agricultural, Food and Forestry Systems (GESAAF)

Curricula:
1) Wine Economics and Rural Development (EVSR)
2) Economics, Forestry Planning and Wood Sciences (EPFSL)
3) Agro-Forest Engineering (IAF)
4) Science and Food Technology (STA)

No. of Positions: 8

Scholarships: 6
2 University of Florence
1 Co-funded by University of Florence and Department GESAAF
1 MIUR Fondo Giovani – Topic n.5 “Advanced materials (particularly ceramics) for structural applications”.
1 University of Gatronic Sciences (UNISG – Pollenzo, Bra, CN)
1 UNICESV (Centro Universitario di ricerca e formazione per lo sviluppo competitivo delle imprese del settore vitivinicolo italiano).

Positions with no scholarship: 2
They are reserved to applicants who have obtained a scholarship from the Government of a foreign Country or have been admitted to specific international mobility programmes.

Evaluation of applicants:
applicants will be selected by written examination and oral examination (article 12, paragraph 1, sub-paragraph a) of Doctoral Regulation n. 670 of July 4th 2013).
English language examination intended to assess the knowledge of a foreign language.

Evaluation of applicants who have obtained a scholarship from the Government of a foreign Country or have been admitted to specific international mobility programmes:
applicants will be selected by
1. oral examination in English language via online interview (article 12, paragraph 3 Doctoral Regulation n. 670 of July 4th 2013 and Article 4 of the PhD Call);
2. assessment of a research project;
3. assessment of the curriculum vitae;
4. assessment of any other qualification,
(article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation n. 670 of July 4th 2013).
DOCTORAL PROGRAMME IN AGRICULTURAL AND ENVIRONMENTAL SCIENCES
Coordinator Prof. Simone Orlandini

Administrative office: Department of Agrifood Production and Environmental Sciences (DISPAA)

No. of Positions: 8

Scholarships: 6
5 University of Florence
1 MIUR Fondo Giovani – Topic n. 7 “Enhancement of agri-food products and food safety through new methods of characterisation and quality assurance”.

Positions with no scholarship: 2

Evaluation of applicants:
applicants will be selected by oral examination including the evaluation of CV and presented research project (article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation n. 670 of July 4th 2013).

Scoring of applicants:

<table>
<thead>
<tr>
<th>parameter</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum vitae, any additional qualification documents</td>
<td>15/120</td>
</tr>
<tr>
<td>Research project</td>
<td>40/120</td>
</tr>
<tr>
<td>Oral Examination: argumentation of the research project and any additional qualification documents</td>
<td>65/120</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum total score of 80/120

CV has to be presented in European format (Europass).

The research project should be attached to the application form and it should be made as the CV pattern uploaded into the following departmental webpage (section “dottorato di ricerca”): http://www.dispaa.unifi.it/vp-26-dottorati.html. The research project should be focused on a possible research activity, which the applicant will be going to execute during the three-year doctoral program.

English language examination intended to assess the knowledge of a foreign language.

The admission examination can be taken in the following foreign language: English.

Foreign students are allowed to take the admission examination in videoconference (by Skype), if they are unable to come in Italy on the examination date, according to art. 4 of the Ph.D. Call.

Documents to be attached to the application form:
- curriculum vitae;
- any additional qualification document and scientific publications;
- research project.
The research project has to be prepared in Italian or English in no more than 12 000 characters including spacing, and structured in introduction, state of the art, objectives, materials and methods, expected results. For XXX cycle, several priorities of interest has been selected. The project must relate, and should make specific reference, to one of themes listed below.

- Roles of secondary metabolites in woody plants
- Role of biological soil crusts in desert soils
- Energy and mass balances for sustainable management of urban and rural areas
- The development of drug-delivery carriers to optimize the plant distribution and efficacy of bioactive molecules for the control of plant diseases: possible applications in grapevine disease control
- Effect of climate on carbon cycle in forestry soils
- Prediction models for dairy cattle welfare
DOCTORAL PROGRAMME IN ARCHITECTURE
Coordinator Prof.ssa Maria Teresa Bartoli

Administrative Office: Department of Architecture (DiDA)

Curricula:
1)   Architectural and Urban Design
2)   Architectural Technologies
3)   History of Architecture and Cities
4)   Design
5)   Survey and Representation of Architecture and Environment
6)   Structures and Conservation of Architecture and Cultural Heritage
7)   Landscape Architecture
8)   Urban and Regional Planning

No. of Positions: 17

Scholarships: 9
8 University of Florence
1 MIUR Fondo Giovani – Topic n. 9 “Energy Saving and distributed Microgeneration”.

Positions with no scholarship: 8

Evaluation of applicants:
applicants will be selected by written examination and oral examination (article 12, paragraph 1, sub-
paragraph a) of Doctoral Regulation n. 670 of July 4th 2013).
The written examination will focus on a topic related to the content of different scientific-disciplinary Ph.D.
curricula.
The oral examination will focus on the discussion of the written examination, the curriculum vitae of the
applicant and on an examination of a European Union language (preferably English). The curriculum vitae
will be used in an informative manner and will not contribute to the score.

Documents to be attached to the application form:
-   curriculum vitae relating to training activities and research carried out by the applicant, of maximum
two A4 pages, as well as an indication of the foreign language chosen for verification.

Examinations for foreign applicants will be held in English, it is also required to acquire a basic level of
Italian within the first year of the Ph.D. studies.
DOCTORAL PROGRAMME IN INFORMATION ENGINEERING
Coordinator Prof. Luigi Chisci

**Administrative office:** Department of Information Engineering (DINFO)

**Curricula:**

1) Control systems, Optimisation and Electrical Systems  
2) Electronics and Electromagnetism  
3) Computer Science  
4) Telecommunications  
5) Non-linear Dynamics and Complex Systems  
6) Telematics and Information Society

**No. of Positions: 14**

**Scholarships:** 7  
- 5 University of Florence  
- 2 MIUR Fondo Giovani

**Positions with no scholarship:** 7

To the successful applicants without a scholarship, contracts of apprenticeship ("Apprendistato di Alta Formazione e Ricerca") may be offered, whenever available, according to Article 2, paragraph 10 of the Call.

**Evaluation of applicants:**
applicants will be selected by oral examination, evaluation of their curriculum, of their other qualification documents and of their research project (article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation n. 670 of July 4th 2013).

**Scoring of applicants:**

<table>
<thead>
<tr>
<th>parameter</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum vitae, qualification document and publications (if any)</td>
<td>40/120</td>
</tr>
<tr>
<td>Preparation of the research project</td>
<td>40/120</td>
</tr>
<tr>
<td>Discussion of the project and publications (if any)</td>
<td>40/120</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum score of 80/120

**Documents to be attached to the application form:**
- curriculum vitae including a list of publications;  
- qualification documents (if any);  
- research project.

During the oral examination the applicant must submit the original documents and the project signed by the applicant himself/herself.

The project must be in .pdf format, written in Italian or English in no more than 12,000 characters including spacing, abstract, introduction and bibliography (under penalty of exclusion from the evaluation).

The project must describe a possible research activity to carry out in the three years of the Ph.D. This project must include the specific reference to the curriculum and the chosen field of study, as specified below.
<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Areas</th>
</tr>
</thead>
</table>
| Control Systems, Optimisation and Electrical Systems | AREA 1 – CONTROL SYSTEMS: concerns the analysis, modelling and synthesis of high-performance automatic control, supervision and monitoring systems for processes that are only partially known and possibly subject to constraints such as those encountered in industrial applications, robotics, bio-engineering, aerospace, electrical systems, etc.  
AREA 2 – OPTIMISATION: concerns the study of Operations Research models and their applications, as well as the development and the analysis of efficient optimization algorithms for the solution of complex problems. The optimisation applications are found both in the field of automation systems as well as in the productive world, from logistics to transportation, to the supply-chain, in the networks of electrical energy management ("smart grids") even in stochastic contexts and multiple decision-makers (game theory).  
AREA 3 – ELECTRICAL SYSTEMS: concerns the critical and comparative analysis of control techniques for electrical drives with the development of innovative algorithms, the automation of power systems, with particular reference to the “power quality” in distribution networks, to the “smart-metering” and fault diagnosis in electrical systems. |
| Electronics and Electromagnetism | AREA 1 – HIGH-FREQUENCY ELECTRONICS: concerns the analysis and design of electronic devices and systems at high frequency (from radio frequency to millimetre waves).  
AREA 2 – DIGITAL ELECTRONIC SYSTEMS: concerns the analysis and design of electronic systems based on advanced digital components, with applications from biomedical to radar fields.  
AREA 3 – ELECTROMAGNETISM: concerns the use and development of numerical techniques for the analysis and design of radiant systems and passive devices at high frequency, from some GHz up to optical frequencies. |
| Computer Science | AREA 1 – METHODS AND TECHNOLOGIES OF SOFTWARE: concerns methods of design, examination and evaluation of complex SW systems, with further details on formal methods and advanced SW architectures.  
AREA 2 – PATTERN RECOGNITION AND COMPUTER VISION: concerns multimedia processing, classification and media search from databases and Internet, solutions for human-machine interaction, smart environments.  
AREA 3 – ARTIFICIAL INTELLIGENCE AND BIOINFORMATICS: is mainly focused on machine learning and its application to bioinformatics. |
| Telecommunications | AREA 1 – ALGORITHMS AND TECHNOLOGIES FOR SIGNAL PROCESSING: concerns processing methods and techniques of mono/multidimensional signals for the extraction of information and the efficiency of their representation in transmission and storage.  
AREA 2 – TRANSMISSION SYSTEMS: concerns methods and techniques for efficient generation, transmission and disclosure of information through future terrestrial and satellite transmission channels.  
AREA 3 – NETWORKS AND TELEMATICS: concerns methods and techniques for efficient transfer of information from source to destination through complex and advanced communication networks and related communication network applications. |
| Non-linear Dynamics and Complex Systems | AREA 1: TECHNOLOGY. This area is suitable for Ph.D. students with a strong background in Physics, Chemistry, Mathematics and Engineering. The training is meant to deepen the more formal aspects of the analysis of complex systems. The research subjects will cover both methodological aspects and, more often, applications related to the following fields: analysis, control and synchronization of dynamical systems, stochastic processes, networks, etc.  
AREA 2: LIFE SCIENCES. This area is suitable both for Ph.D. students with a background in Physics, Chemistry, Mathematics, Engineering, as well as for Ph.D. students from other disciplines (Biology, Medicine, Psychology, etc.) within the life sciences area. The analysis of specific biological systems will be performed by some students, while others will focus on the mathematical aspects which underlie the adopted techniques. Research topics will include, e.g., dynamical and statistical methods in genomics, proteomics, neuroscience, etc.. |
<table>
<thead>
<tr>
<th>Telematics and Information Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA 1 – TECHNOLOGIES FOR THE TELEMATICS: this aims at the scientific training of the students on basic technological aspects of telematics according to the development needs of related systems and networks, for the various application contexts.</td>
</tr>
<tr>
<td>AREA 2 – TELEMATIC SYSTEMS: concerns the Telematic Systems, understood from the point of view of both the architectural and related organizational aspects. Particular attention is given to the acquisition of knowledge and scientific methods in the field of architecture and the physical and intangible infrastructure of telematic systems, as well as the translation of basic requirements of users in the corresponding basic services of the telematics system.</td>
</tr>
<tr>
<td>AREA 3 – TELEMATIC APPLICATIONS: pertains to diversified scientific fields in a broad interdisciplinary context, reflecting the diversity of knowledge required by the various application fields of telematics. These sectors include: Telecommunications, Computer Engineering, Communication Science, Science Education, Politico-Economic Social Science.</td>
</tr>
<tr>
<td>AREA 4 – HUMAN AND SOCIO-ECONOMIC FACTORS OF THE TELEMATICS: mainly relates to the field of science in the socio-economic, legal and particular areas of the humanities, with specific inter-disciplinary contributions joining the Information Engineering. It aims at the preparation and the scientific expertise necessary to address the problems inherent socio-economic and human factors that influence the development and quality of telematics applications.</td>
</tr>
</tbody>
</table>
DOCTORAL PROGRAMME IN INDUSTRIAL ENGINEERING
Coordinator Prof. Maurizio De Lucia

Administrative office: Department of Industrial Engineering Florence (DIEF)

Curricula:
1) Energy and Innovative Industrial & Environmental Technologies
2) Design and development of Industrial Products and Processes
3) Industrial Engineering and Reliability
4) Science and Engineering of Materials

No. of Positions: 23

Scholarships: 13
- 5 University of Florence
- 1 MIUR Fondo Giovani – Topic n. 9 “Energy-saving and distributed microgeneration”.
- 1 MIUR Fondo Giovani – Topic n. 4 “Shipbuilding, aircraft and helicopters with high ability to penetrate foreign markets”.

Positions with no scholarship: 10

Evaluation of applicants:
Applicants will be selected by oral examination, evaluation of their curriculum, of their other academic or professional qualifications and of their research project through a score system as specified below (article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation n. 670 of July 4th 2013).

Scoring of applicants:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>minimum score</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of the curriculum vitae, evaluation of other academic or professional qualifications and publications (if any)</td>
<td>12/120</td>
<td>18/120</td>
</tr>
<tr>
<td>Evaluation of the research project</td>
<td>28/120</td>
<td>42/120</td>
</tr>
<tr>
<td>Oral examination: discussion of the project and publications (if any)</td>
<td>40/120</td>
<td>60/120</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum score of 80/120

The applicant will be excluded from the evaluation, if he/she won't have got one of three minimum scores.

Documents to be attached to the application form:
- curriculum vitae;
- any additional qualification documents and scientific publications;
- research project.

The research project must be written in Italian or English in no more than 12,000 characters including spacing, abstract, introduction and references (otherwise the applicant will be excluded from the evaluation). The project must relate, and should make specific reference, to one of the working themes listed below. The violation of the above prescription causes the exclusion from the competition.

Themes of Doctoral Program:
- Refrigeration ejection: Ejection development of refrigeration systems operating with natural fluids. Application of ejectors for the recovery of the loss of lamination in compression refrigeration systems. Thermodynamic analysis, fluodynamic and experimental activity;
- Efficiency and reducing consumption of air conditioning systems for vehicles of public transport to ensure the conditions of temperature and humidity and indoor air quality;
- Energy consumption, air quality and reducing risk of contamination, as a function of the effectiveness of the flushing air and the efficiency of the HVAC systems in special environments;
- Experimental analysis of heat exchange in the interaction between the combustor and turbine in gas turbines;
- Numerical modeling non-stationary, of type "scales resolved," the combustion process and heat transfer machines;
- Numerical modeling and/or experimental secondary air circuits and auxiliary components in gas turbines and its aeronautical applications, including devices to reduce the speed of the power;
- Numerical modeling and/or experimental secondary air circuits and auxiliary components in gas turbines and related industrial or aeronautical applications, with particular attention to cooling systems and combustion;
- Modelling of external aerodynamics of HVAC systems applied to land vehicles with particular attention to high-speed train;
- Aeroacoustic noise in aircraft engines and the use and/or implementation of control systems passive or active;
- Characterisation of nanostructured magnetic materials;
- Numerical and experimental methodologies for developing reciprocating compressors;
- Development of numerical models coupled with experimental approaches dedicated to the improvement of Internal Combustion Engines;
- Innovative technologies for the enrichment of oxygen in the combustion air for power plant;
- Development of navigation and mobile navigation techniques for autonomous underwater;
- Development and validation of rotordynamical models of turbomachines and supporting structures;
- Development and validation of fluid dynamical and magnetic bearing models for rotordynamical applications;
- Study and development of innovative railway vehicles with high comfort and safety performance;
- Study and development of innovative railway vehicles and energy optimization of traction and braking;
- PLM an innovative solution and as a strategic approach supporting the new product development in the fashion industry;
- Studies on the car power train to optimize the vehicle dynamics;
- Technologies to assist blind people exploration of works of art
- Analysis, simulation and optimization of advanced machining processes;
- Development of active and passive safety devices and/or strategies for Motorcycles;
- Study (In-Depth) the road accidents occurring in the metropolitan area of Florence.
INTERNATIONAL DOCTORATE IN CIVIL AND ENVIRONMENTAL ENGINEERING
Coordinator Prof. Fabio Castelli

Pegaso Project Regione Toscana – Partner Institutions: University of Florence, University of Pisa

University in agreement: University of Perugia, Technical University of Braunschweig (Germany)

Administrative office: Department of Civil and Environmental Engineering (DICEA)

Curricula:
1) Solid, Fluid and Materials Mechanics
2) Construction Design, Verification and Control
3) Environment, Resources and Security

For further details on the international joint degrees and the description of the curricula and the co-financing grants view the Ph.D. programme website: [http://www.unifi.it/ddicea/mdswitch.html](http://www.unifi.it/ddicea/mdswitch.html)

No. of Positions: 15

Scholarships: 12
4 University of Florence
3 University of Perugia
1 University of Pisa
1 MIUR Fondo Giovani – Topic n. 5 “Advanced materials (in particular ceramics) for structural applications”.
2 Regione Toscana Pegaso Scholarships 2014
1 Department of Civil and Environmental Engineering (DICEA) – MIUR FIR 2013 – Theme “In situ bioaugmentation to exploit the combination of fungi and bacteria for recalcitrant compounds removal”.

Positions with no scholarship: 3

Evaluation of applicants:
oral examination, evaluation of the curriculum, of any other qualification document and of the research project (article 12, paragraph 1, sub-paragraph c) of Regulation, Doctoral Regulation n. 670 of July 4th 2013).
For applicants from abroad examination in video conference with visual identification may be allowed, as foreseen in article 4 of the PhD Call.

Scoring of applicants:

<table>
<thead>
<tr>
<th>parameter</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral examination</td>
<td>70/120</td>
</tr>
<tr>
<td>Curriculum vitae, qualification documents and publications</td>
<td>20/120</td>
</tr>
<tr>
<td>Research project</td>
<td>30/120</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum score of 80/120

Documents to be attached to the application form:
- curriculum vitae;
- any additional qualification documents and scientific publications;
- research project, within the theme of the Ph.D., which must be written in English up to a maximum of three pages and will refer to at least one of curricula.

A good knowledge of spoken and written English is required.
HUMANITIES AREA

DOCTORAL PROGRAMME IN PHILOLOGY, ITALIAN LITERATURE, LINGUISTICS
Coordinator Prof. Adele Dei

Administrative office: Department of Humanities (DILEF)

Curricula:
1) Italian Studies (International) – Partner Institutions: Rheinische Friedrich-Wilhelms University, Bonn, Germany; University of Paris IV Sorbonne, France
2) Linguistics
3) History and Critical Tradition of Medieval and Renaissance Texts

No. of Positions: 6

Scholarships: 4 University of Florence

Positions with no scholarship: 2

Evaluation of applicants:
applicants will be selected by written examination, oral examination, evaluation of their curriculum, of their other qualification documents and of their research project (article 12, paragraph 1, sub-paragraph b) of Doctoral Regulation n. 670 of July 4th 2013).

Documents to be attached to the application form:
- abstract of Master thesis (or equivalent degree) including professor name and evaluation;
- curriculum vitae;
- list of exams taken with the relative grades;
- any scientific qualification document which the applicant considers useful to discuss during the oral examination;
- research project which the applicant intends to carry out during the Ph.D.

The written examination consists of a detailed study on a topic chosen from among those proposed by the Commission, which will focus:
- on the interpretation and the commentary to a text or illustration of a fundamental theme of Italian Literature from its origins to the contemporary (Italian Studies);
- on a theme featuring one of the following areas: historical linguistics, theoretical linguistics, corpus linguistics, Italian linguistics and communication theory (Linguistics);
- on the illustration of themes, texts or palaeographic Medieval or Renaissance documents (History, and Critical Tradition of Medieval and Renaissance Texts).

The oral examination consists of a discussion of the research project proposed by the applicant, the scientific qualification documents presented and the assessment of the knowledge of a foreign language (Latin is obligatory for the curriculum in History and Critical Tradition of Medieval and Renaissance Texts).
DOCTORAL PROGRAMME IN COMPARATIVE LANGUAGES, LITERATURE AND CULTURE
Coordinator Prof. Maria Rita Manzini

Administrative Office: Department of Languages, Literature and Intercultural Studies

Curricula:
1) German Studies Florence-Bonn (International) – Partner Institutions: Rheinische Friedrich-Wilhelms University, Bonn, Germany  
2) Founding Myths of Europe in the Arts and Literature (International) – Partner Institutions: Rheinische Friedrich-Wilhelms University, Bonn, Germany; University of Paris IV, Sorbonne, France  
3) Language, Literature and Philology: Intercultural perspectives  
4) Linguistics and Oriental Studies

No. of Positions: 8

Scholarships: 4 University of Florence

Positions with no scholarship: 4

Evaluation of applicants: applicants will be selected by written examination, oral examination, evaluation of their curriculum vitae, and of their research project (article 12, paragraph 1, sub-paragraph b) of Doctoral Regulation n. 670 of July 4th 2013).

The written examination will consist in the analysis of a literary text or the discussion of a subject related to the themes of the four curricula. There will be three texts or subjects proposed from which the applicant must choose.

The admission examination may be taken in one of the following foreign languages: German, French, English, Spanish.

Each applicant shall demonstrate competence, besides from the language in the area of their specialisation, in one or two foreign languages to be chosen between German, French, English, Spanish.

Documents to be attached to the application form:
- curriculum vitae. The CV must include abstracts of the Degree theses defended (Bachelor degree, Master degree, or other of maximum one page per abstract), as well as an abstract of eventual publications (maximum 250 words per article), stressing the original aspects of the various works.
- research project, of maximum five pages, defining the discipline in which they intend to specialise and written in Italian or in one of the foreign languages: German, French, English and Spanish. The project and the curriculum will be discussed during the oral examination.

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Themes</th>
</tr>
</thead>
</table>
| German Studies Florence-Bonn (International) | 1) Classical-romantic culture and its reception  
2) 19th century German literature between Realism and Nihilism  
3) Themes and currents of 20th century German Literature  
4) Italo-German studies  
5) Theory and history of translation and publishing techniques  
6) Gender studies  
7) Historico-literary anthropology  
8) Aesthetics and poetics of modernity |
| Founding Myths of Europe in the Arts and Literature (International) | 9) Theory and science of literature  
10) Literature and arts |
|---|---|
| **Partner Institution:** University of Sorbonne Paris IV, Rheinische Friedrich-Wilhelms University, (Bonn) | 1) Modernity and new myths  
2) Classical antiquity, Italian Renaissance and European culture  
3) Mythical figures of European culture  
4) Studies on 18th century Europe  
5) Literature and arts  
6) Aesthetics and poetics of modernity  
7) Classical-romantic culture and its reception |
| **Language, Literature and Philology: Intercultural Perspectives** | Areas of research: Anglo-American, Estonian, Germanic Philology, Romance Philology, Finnish, English, Hispanic-American, Comparative Literature, Portuguese, Romanian, Scandinavian, Spanish, Turkish, Hungarian. The Topic for the XXX cycle, on which the written exam will focus, will be: “Migrant literatures”. |
3. Philological and linguistic analysis of texts, with particular attention to oriental languages. Analysis and interpretation of documents and texts in modern and ancient languages. Textual genres. |
DOCTORAL PROGRAMME IN EDUCATION SCIENCES AND PSYCHOLOGY
Coordinator Prof. Simonetta Ulivieri

Administrative Office: Department of Education and Psychology

Curricula:
1) Theory and History of Educational Processes
2) Quality of Knowledge and Knowledge of the Differences
3) Research Methodologies for Educational Services
4) Sciences of Psychological Development and Social Education, of Organisation and Labour

No. of Positions: 8

Scholarships: 4 University of Florence

Positions with no scholarship: 4
of which 1 is reserved to applicants who have obtained a scholarship from the Government of a foreign Country or have been admitted to specific international mobility programmes, according to art.1, paragraph 2, of Ph.D Call.

Evaluation of applicants:
written examination, oral examination with evaluation of the curriculum, of any other qualification document and of the research project (article 12, paragraph 1, sub-paragraph b) of Doctoral Regulation n. 670 of July 4th 2013).

The oral examination will also affect the language assessment in one of the following foreign languages chosen by the applicant: English, French, German, Spanish.

Documents to be attached to the application form:
- CV with scientific qualifications;
- any additional educational and professional qualification document;
- publications (if any);
- research project with bibliographic equipment (max 5 pages in A4 format and fonts 12 or 14 pt).

The research project will be discussed and valued during the oral examination; it will be necessary to the evaluation of applicant's disposition to the research in pedagogical and/or psychological fields.
DOCTORAL PROGRAMME IN HISTORY OF ART AND PERFORMING ARTS
Coordinator Prof. Maria Grazia Messina

Regione Toscana Pegaso Project – Partner Universities: University of Florence, University of Pisa, University of Siena.


Curricula:
1) History of Arts
2) History of Performing Arts

Description:
This Ph.D. programme is aimed at those who propose to carry out research in the field of History of Art and Performing Arts, with particular reference to the Tuscan region, its historical patrimony, as well as its development prospects and its relation to the wider international context. The History of Art curriculum is rooted in the established critical traditions and skills necessary for the identification of the contexts of production and reception essential for the understanding of artworks, studied as intellectual and material products and in the variety of their meanings, from the Middle Ages to the contemporary period. It avails itself of philological and historiographical research, and fosters a range of methodological approaches, from archival work up to the most recent methodological trends of the discipline. Privileged areas of study are: cultural transfers, extended to an international perspective; aspects of commissioning and collecting; organisation of museums and exhibitions; modes of reception in relation to art literature as well as to the history of criticism; modes of production and irradiation as part of the minor arts. The History of Performing Arts curriculum is based on a solid historical tradition which analyses the language of the arts (theatre, music, cinema and video, history of the actor) in accordance with the most innovative methodological trends in historical research and theoretical (even under the profile of reception). Privileged fields of research are the origins of the show (the birth of the opera, the creation of theatrical scenery, the notion of theatre the ‘Italian way’, the spreading of professional acting, the productive system, the socio-political fall-out); the study of archival (including multimedia) and book sources both of theatrical as well as of musical and audiovisual nature; the widespread dissemination of historical theatres; cinema in Tuscany; the network of theatrical, musical and cinematographic institutions; the study of actors and singers; video art, new media, the relation between cinema and art; the analysis of drama (even contemporary); the critical and historiographical tradition.

No. of Positions: 12

Scholarships: 9
3 University of Florence
6 Regione Toscana Pegaso Scholarships 2014

Positions with no scholarship: 3

Evaluation of applicants:
applicants will be selected by written examination, oral examination, evaluation of their curriculum vitae and of their other qualification documents and of their research project (article 12, paragraph 1, sub-paragraph b) of Doctoral Regulation n. 670 of July 4th 2013).

Themes of the examination:

Written examination: subjects, topics and methodologies typical of the areas of research pertaining to the Ph.D programme. The outlines proposed by the Committee will allow a development in line with the specific curriculum, history of art or performing arts, chosen by each applicant.
Oral examination:
- Evaluation of the curriculum vitae;
- Interview aimed at verifying the applicant’s competence in the field, the contents, suitability, and modalities of the proposed research project;
- Verification of the applicant’s knowledge of English and of a second language.

Documents to be attached to the application form:
- Copy of thesis (Master or equivalent degree) in .pdf format;
- Curriculum vitae (education and training, professional experience, qualification documents and publications relating to the fields of the Ph.D. programme, skills and competences relevant to the evaluation);
- Research proposal consistent with the themes of the Ph.D. programme. This research proposal should not be less than 10,000 and not more than 20,000 characters (including spacing). It must specify the topic of research, outline its place with respect to the state of art, clarify its originality and indicate how the research will unfold throughout the three years of the Ph.D.

A good knowledge of spoken and written English is requested.
DOCTORAL PROGRAMME IN HISTORICAL STUDIES
Coordinator Prof. Andrea Zorzi

Administrative office: Department of History, Archeology, Geography, Fine & Performing Arts (SAGAS)

Branch office: University of Siena

Curricula:
1) History and Civilisation of the Ancient World and the Near East
2) Medieval History
3) Modern History
4) Contemporary History
5) Book Sciences, Institutions and Archives

No. of Positions: 10

Scholarships: 8
5 University of Florence
3 University of Siena

Positions with no scholarship: 2
of which 2 are reserved to applicants who have obtained a scholarship from the Government of a foreign Country or have been admitted to specific international mobility programmes, according to art.1, paragraph 2, of Ph.D Call.

Evaluation of applicants:
oral examination, evaluation of the curriculum, of any other qualification document and of the research project through a score system as specified below (article 12, paragraph 1, sub-paragraph c) of Doctoral Regulation n. 670 of July 4th 2013).

Scoring of applicants:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum vitae, qualification documents and publications (if any)</td>
<td>20/120</td>
</tr>
<tr>
<td>Research project</td>
<td>40/120</td>
</tr>
<tr>
<td>Oral examination: discussion of the project in order to evaluate the applicant’s attitude towards the research</td>
<td>60/120</td>
</tr>
</tbody>
</table>

All applicants, who obtain at least 40 points in the evaluation of the curriculum vitae, qualification documents and the preparation of the project, are admitted to the oral examination. The oral examination is passed with a minimum score of 40 points.
The research project will be discussed and evaluated during the oral examination.

During the oral examination the general and specific competence on the historical and historiographical period and on the themes of the research will also be examined.
During the oral examination an evaluation on the knowledge of English will be held for the applicants who have graduated in Italian Universities, and of the Italian language (Standard Level B2) for applicants graduated in non-Italian Universities.

Documents to be attached to the application form:
- degree certificate (Master or equivalent);
- list of exams taken with the relative grades;
- curriculum vitae (education and training, professional experience, qualification documents and publications relating to the areas of the Ph.D., skills and competences relevant to the evaluation) with a list of all the additional qualification documents and any other scientific publications;
- copy of the degree thesis;
- research project, consistent with the curriculum of the Ph.D., to which explicit reference to one (or more) must be made. This project must be at least 8,000 and not more than 10,000 characters (excluding spacing). The project must specify the topic of the research, clarify the characteristics of originality and systematically indicate the state of the art on the argument (with adequate bibliographical references) and the areas for investigation which are considered to be usefully developed throughout the three years of the Ph.D.

The presentation of the following documents is requested for applicants graduated in non-Italian Universities:
- university certificates in original language and translated into Italian or English;
- curriculum vitae in Italian or English;
- one recommendation letter in English by a qualified scholar;
- a copy of the thesis (or equivalent) with abstract in Italian or English;
- research project in Italian or English;
- certification of good knowledge of Italian (Level Standard B2);
- any certification of the award of a scholarship by a foreign State or within specific international mobility programmes.