

DOCTORATE COURSE IN COMPUTER SCIENCE - INTERNAL REGULATIONS

PART I

General regulations

Article 1 – Doctorate course

1. The aim of the Course is to train people with a wide and in-depth knowledge of Computer Science who are able to carry out original research, to give value to research results and to foster and manage innovation in this field. The topics included in the course are those of the science and technology of information, whose core is defined in annex 1. Any modifications in the annex do not affect in any way these regulations. The course has a duration of three years.
2. The official language of the doctorate course is English. The seminars, teaching activities, all tests and examinations, and the doctoral thesis and its discussion are held in English. Some events may also be held in other languages, subject to authorization by the Doctorate Faculty Board.
3. The administrative department of the doctoral course is the Department of Computer Science which guarantees, compatibly with the resources available, the possibility to carry out the research activity in the topics indicated in art. 1 as well as in multidisciplinary areas where Computer Science methods and techniques play a fundamental role.
4. The University of Pisa promotes impartiality and equal opportunities for men and women and, therefore, in these Regulations makes use of “they” to refer to both sexes, for the sake of simplicity and conciseness.
5. The doctorate course is governed by the Italian legislation in force, by the University Regulations regarding the research doctorate and by these Regulations.

Article 2 – Organs of the doctorate course

1. The Doctorate Coordinator and the Doctorate Faculty Board are the organs of the Doctorate Course, in accordance with current legislation.
2. The supervisors of the doctoral students, as per art. 6, are invited to attend the meetings of the Doctorate Faculty Board for the points indicated in the agenda concerning the doctoral students. If they are not already part of the organ they participate without voting rights.
3. The meetings of the Doctorate Faculty Board take place according to the procedures established by current regulations, possibly by teleconference using free-of-charge software or that made available to the members of the Board by the Department of Computer Science of the University of Pisa.
4. The Doctorate Faculty Board may delegate to the Coordinator the following: approval of the program of activities of the doctoral students, only with reference to the courses and seminars to be followed, as provided for in art. 8; the choice of thesis project, after consultation with the supervisor; and authorization to attend periods abroad and verification of the courses attended and the related tests/examinations held at these locations.

PART II

Admission

Article 3 – Admission

1. In accordance with current regulations, admission to the doctorate course is on the basis of a public selection or according to the procedure for extra student admissions.
2. Admission to the doctoral course is on the basis of evaluation of the candidate's curriculum, given a maximum of 40 points, and a personal interview, which is given a maximum of 60 points.

Article 4 – Admission conditions

1. The public selection is preceded by an evaluation of the candidate's curriculum, including degrees and postgraduate degrees obtained, publications, awards and any other document that the admissions committee deems relevant for evaluation purposes. Furthermore, candidates are asked to submit a research project proposal when applying. This project is presented and evaluated during the personal interview.
2. The candidate is admitted to the personal interview if they obtain a total score of not less than 30 points out of 40 in the evaluation of the curriculum. The interview in Italian or English, also possible virtually via teleconference, is passed if the candidate obtains a total score of not less than 40 points out of 60. During the interview the admissions committee evaluates the candidate's ability to analyze and summarize, the ability to formalize problems, commitment and study skills. It verifies that they possess a wide knowledge of the theories and applications of Computer Science, and an in-depth mastery of some of its topics and methodologies. Furthermore, it verifies English knowledge and the willingness to spend periods abroad. Finally, the commission assesses the scientific relevance of the research interests of the candidates, the research project to be carried out during the doctoral period and their consistency with the themes of the doctorate.
3. In the case of selection with places reserved for candidates graduated in foreign universities, the selection follows the same procedures indicated in the previous paragraphs.

Article 5 – Examining commission

1. Examining commissions for admission to research doctorate courses are nominated in accordance with current regulations.

PART III

Attendance on doctorate courses

Article 6 - Supervisor

1. During the first year, the Doctorate Faculty Board assigns to each doctoral student at least one supervisor, who must belong preferably to any institutions involved in the doctoral program and is designated/assigned by taking into account also the scientific and research interests of the doctoral students. This assignment may be changed with the same procedure.

2. The supervisor has the task of guiding and assisting the doctoral student in the formulation of the program of academic activities and its implementation, and (s)he is primarily responsible for research aimed at preparing the final dissertation.

Article 7 – Compatible and incompatible activities

1. The primary task of doctoral students is to carry out research.

2. Doctoral students are encouraged to take part to some activities foreseen in the Course in other public or private Universities, Institutes or Research Centers in Italy or abroad, for a period of no more than eighteen months, subject to approval by the Doctorate Faculty Board.

3. Doctoral students may employ a maximum of 20 hours per academic year for teaching and/or supplementary teaching activities on the three-year degree or master's degree courses, teaching subjects relevant to the doctorate and compatible with the doctoral student's course activities.

Article 8 - Structure of the doctoral course and verification of course activities

1. The course is divided into lessons, seminar cycles and research activities. The Doctorate Faculty Board decides annually the list of courses and seminar cycles to be activated and to entrust them to experts in the relevant sectors.

The lessons are expressly conceived for the doctoral course, have an approximate duration of 16 hours and focus on advanced aspects of the disciplines of the doctorate and other closely related themes.

Subject to authorization by the Doctorate Faculty Board, at the most one of the courses provided by master's degrees, and at the most two courses from advanced doctoral schools in Italy and abroad which have a final examination, can be considered equivalent to those teaching activities mentioned above.

Each cycle of seminars consists of periodic meetings, managed by a tutor chosen by the Doctorate Faculty Board, on a particular field of study, including interdisciplinary themes. Doctoral students must participate actively, critically presenting significant results in this field, both of their own and others' work. At the end of each cycle of seminars, the tutor reports to the Doctorate Faculty Board on the activity of the individual doctoral students.

Research activity, to be carried out under the guidance of the supervisor referred to in the following art. 5, is aimed at preparing a final written dissertation which is the main objective of the doctorate course. The dissertation must document wide-ranging and consistent work, and must contain original results of a level suitable for publication in international journals.

2. In order to consolidate culture in Computer Science and to enable the doctoral student to make an informed choice of the thesis topic, each doctoral student must attend six courses and pass the relevant final tests, the results of which will be evaluated by the Doctorate Faculty Board in the annual assessment. Furthermore, in each year of the course each doctoral student must actively participate in at least one seminar. Attendance at courses and seminars is mandatory.

3. At the beginning of each academic year each doctoral student defines, with the assistance of their supervisor, a program of activities that the Doctorate Faculty Board examines and may approve, requesting any possible changes.

4. At the beginning of the doctoral course, the Coordinator, after consulting the admissions commission, evaluates the extent of the student's cultural base and, if necessary, proposes

inclusion in the activity program of extra lessons to fill potential gaps of knowledge and establishes appropriate forms of verification.

5. At the end of the first year of the doctoral course each student, under the guidance of their supervisor and by consulting experts on the topic in question, must present a written thesis proposal to the Doctorate Faculty Board, which covers the research topic and provides a summary of the already known results and an analysis of the problems to be addressed, specifying any results already personally achieved. Furthermore, the doctoral student must present the Doctorate Faculty Board with a detailed report on the activities carried out, which must include the results of the courses and the seminars attended and of the tests arranged to verify that any potential gaps have been filled. For each student the Doctorate Faculty Board nominates a commission of at least three experts, also foreign experts, presided over by the supervisor. This is the internal commission, which assesses the dissertation proposal and the report on the activities carried out. On the basis of these reports and the opinion of the internal commission, the Doctorate Faculty Board approves or rejects passage to the following academic year.

6. At the end of the second year, the student makes an oral presentation to the internal commission and the Doctorate Faculty Board on the training and research activities carried out and the objectives achieved. On the basis of a written report produced by the supervisor and the internal commission on the candidate's work and the presentation, the Doctorate Faculty Board evaluates the results obtained and approves the student's work or rejects passage to the following year, providing a motivated reason for the decision.

PART IV

Postgraduate qualification

Article 9 – Final exam

1. Procedure for issuing the research doctorate qualification are those foreseen by current regulations.

2. The doctoral student must submit the thesis by the end of the last year of the doctoral course. At the end of the course the doctoral student presents their thesis to the Doctorate Faculty Board, in a public conference. If the Doctorate Faculty Board, after consulting the supervisor and the internal commission, evaluates the thesis as not suitable for sending to the evaluators, it may grant the student an additional time of at most two months to modify the thesis according to the regulations of art. 19 of the University regulations. The evaluators, within three months of receiving the thesis, express a judgment and propose admission to the public discussion or postponement for a maximum period, not exceeding six months, for the necessary additions and corrections. The Doctorate Faculty Board must arrange the session for the discussion of the doctoral thesis within three months from the admission of the thesis to discussion by the evaluators. The thesis, for transmission to the examining Commission in charge of the Final exam, may be accompanied by a letter of introduction regarding the originality and quality of the research documented in the thesis itself, as well as an overall judgment on the activity carried out by the doctoral student.

3. As foreseen by current regulations, the doctoral student is authorized to attend and use the University facilities until the thesis is discussed, for all activities involved in its completion.

4. After obtaining the doctorate certification, in addition to the diploma, a document is issued to the doctoral student, signed by the Coordinator, certifying the activities carried out during the doctorate.

Article 10 – Examining commission

1. The composition of the examining commission is that foreseen by current regulations.

PART V

Agreements and internationalization

Article 11 – Conventions and consortia

1. In order to effectively coordinate research activities at a high national and international level, the University of Pisa may stipulate agreements and set up consortia, aimed also at issuing a multiple or joint qualification, as required by current regulations.

Article 12 – Co-tutorship doctorate

1. Doctoral students of the University of Pisa and of foreign universities may attend the doctorate in co-tutorship for the production of the thesis, in accordance with current regulations and the conditions agreed in the convention.

Article 13 - Doctor Europaeus

1. On request of the doctoral student, the University can issue the certification of *Doctor Europaeus/International Doctorate* if the conditions foreseen by current regulations exist.

PART VI

Applicazione

Article 14 - "Final provisions"

1. Pursuant to art. 5, paragraph 3, of the University regulations regarding the doctoral program, these regulations and any subsequent amendments, are proposed by the Doctorate Faculty Board, approved by the Department Councils, which contribute to the establishment of the Doctorate Course, and transmitted to the central administration for subsequent approval by the Academic Senate, subject to approval by the Board of Governors.

For any matters not provided for in these regulations, reference should be made to the University regulations and to national legislation as applicable.

These Regulations come into force in the Official Computer Register after 15 days from the date of publication on the University website.

ANNEX n. 1**INTERNAL REGULATIONS OF DOCTORATE COURSE IN COMPUTER SCIENCE**

With reference to Article 1 – “Doctorate course” – of PART I of the General Regulations, it is specified that the group of core subjects of the doctorate course is defined by the scientific-discipline programs INF/01 and MAT09.