

INTERNAL REGULATION

Title I - General rules

Art. 1. Scope

This Regulation disciplines the Regulation of the PhD Courses of the University of Perugia, issued with DR n. 1548 of 07.08.2013 (hereafter "University Regulation") and the functioning of the PhD in Industrial and Information Engineering.

Art. 2. Approval and amendment of the Regulation

This Regulation is proposed by the Board of the PhD course and approved by the Department of Engineering. Every possible amendment is proposed by The Academic Board to the Department, with resolution approved by a simple majority of claimants.

Art. 3. Curricula

Research and training activities are divided into different curricula, which refer to one or more Scientific-Disciplinary Sectors characterizing the industrial and information engineering, as shown in the validation file of each cycle of doctorate.

Title II – Organization structures (bodies)

Art. 4. Administrative bodies of the PhD Course

The competent bodies of the PhD Course (The Academic Board) are The PhD teaching board and the Coordinator.

Art. 5. The Academic Board

The Academic Board of the PhD Course in Industrial and Information Engineering (simply called "Academic Board" or "Board" in the following) is composed of professors, associate professors, university researchers, and two PhD students elected among the PhD students enrolled. All members of the course can be part of the active and passive electorate. Elections are held every two years and the Coordinator announces them. The elections are valid if at least half of the electorate is participating.

The representatives of the enrolled students attend the meetings as an advisory body. They are involved in the discussion of educational and organizational problems of the course; they do not participate to the discussions and deliberations concerning the annual assessment of the PhD students and the organization of the final exam.

Professors, researchers, and experts of the Scientific Sectors/Disciplinary indicated in Art. 3 may be invited to participate to the meetings of the Academic Board and they could also be included as Co-Advisors of PhD students.

The resolutions of the Academic Board are valid if adopted by the majority of the participating. The Board appoints a referring Professor for each curriculum, with the task of organizing and coordinating the training activities, proposing to the Board measures relating to doctoral students, organizing tutorial activities, treating and following the progress of each PhD student to ensure to all of them the acquisition of methodological tools related to their field of scientific research.

Art. 6. The Coordinator of the PhD Course

The Coordinator is a full-time professor or, failing that, a full-time associate professor member of the Academic Board (or of the teaching staff).

The Coordinator is appointed for three years and may be reconfirmed only once. The appointment and replacement of the Coordinator are approved by the absolute majority of the Department Board, administrative office of the PhD Course, on proposal of the Academic Board. The Coordinator is responsible for organizing the course and takes charge of the development of the PhD Course. To this aim, the Coordinator:

- a) Calls and presides at the meetings of the Academic Board, fixing the agenda of each session, and carrying out the resolutions of the Board. The convocations are made at least 5 days in advance. The meetings are valid when there is half plus one of the members of the Board deducted justified absentees. The Academic Board appoints a secretary at the beginning of each meeting, with the functions of assisting the Coordinator and drawing up the meeting minutes.
- b) Authorizes the PhD students enrolled to carry out periods of study and research up to six months in Italian or foreign Universities or Research Centers.
- c) May appoint as Vice Coordinator a member of the Board, with the function of replacing the Coordinator in case of absence or impediment, for a period not exceeding six months.
- d) Represents the Board in its relations with the other bodies of the University.

The Coordinator shall convene the Academic Board in ordinary session at the beginning and at the end of each academic year of the Course, and in extraordinary session at any time in relation to particular needs, on its own initiative or on the request of at least one third of the members of the Board. He/she convenes the election of the representatives of students enrolled to the Course.

Art. 7. Internal assessment

In order to assess the level of qualification and specialization of the training and research activities carried out by the PhD Course, the Academic Board shall submit to the administrative office of the Department, as part of a statement of Quality of the University, an annual report on the training processes realized and on the conformity of these processes with the planned objectives (also in relation to employment opportunities with the level of training acquired), as well as the objectives planned for the following year.

Title III – Functioning of the PhD Course

Art. 8. How to access the PhD Course

Access to the PhD Course in Industrial and Information Engineering is based on a public announcement of selection, and will be followed, after completion of the tests required, by the publication of the list of the students allowed.

Only those candidates who achieve a higher rating than the minimum established for each session of the selection by the Academic Board, can access the PhD Course.

In order to ensure a comprehensive assessment of each candidate, the Academic Board can choose one of the following modalities to perform the selection procedure:

- a) Assessment of the qualifications (on a scale of 30).
- b) Assessment of qualifications and written test (on a scale of 60: 30 + 30).
- c) Assessment of qualifications and interview (on a scale of 60: 30 + 30).
- d) Assessment of qualifications, written test and interview (on a scale of 90: 30 + 30 + 30).

Thesis, academic publications, professional experience or other qualifications may be considered as assessment of qualifications. The interview includes a test of knowledge of the English language.

Art. 9. Examination Commission for the final exam

The members of the Examination Commission for the final exam cannot be reappointed for two cycles following the year in which they have carried out this task.

In each Examination Commission, there cannot be more than one professor or researcher belonging to the same Scientific-Disciplinary Sector mentioned in Art. 3.

The presence of the different Scientific-Disciplinary Sectors in the composition of the Examination Commission will follow an alternation criterion.

Title IV – Organization of the training activities

Art. 10. Beginning of the PhD Course

The PhD Course generally begins after the opening of the academic year and, in any case, after the completion of the selecting procedures.

Art. 11. Credits

The organization of the training activities is based on the system of Credits (CF). In order to be admitted to the next year of the Course, or to the final exam at the end of the third year, each student should normally acquire 60 CF per year, for a total of 180 CF in the three years of the Course;

The CF are assigned for the following education and research activities:

1. Attendance and examination in institutional teaching modules, chosen among those offered in the first level Degree Courses or Master Degree Courses of the University of Perugia or other universities, provided they are of scientific interest for the student and follow the advice of the Academic Board.
2. Attendance and examination in some specific teaching modules for PhD programs.
3. Attendance and examination in teaching modules held in other Italian or foreign Universities.
4. Participation in seminars, conferences or workshops of relevant scientific interest for the PhD student.
5. Acquisition of scientific specialized skills.
6. Research activities in foreign universities or research centers.
7. Guided research activity.
8. Drafting of the PhD thesis.

For the teaching modules mentioned in the points above, one CF corresponds to 4 hours of lectures. As for the participation at seminars, conferences and workshops, one CF corresponds to a 4-hour lecture, or a fraction, of the event.

Art. 12. Starting the course and assignment of the Advisor

Once the winners of the selection procedure are nominated, one or more members of the Academic Board, on behalf of the Coordinator, will interview the winners separately in order to examine their proposals and aspirations about their preferred research area, also taking into account their specific training and the possibilities offered by the existing structures.

As a result of this activity, they will report to the Academic Board, which will appoint at least one Advisor for each student. The Advisor normally will serve as a supervisor of the thesis, and will propose to the candidate to work on a specific research area.

Advisors are chosen among members of the Academic Board.

Advisors and PhD students will define their research topic, which will be submitted to the Academic Board within three months from the nomination of the successful candidates.

Upon request of the PhD students and/or of the Advisors, the Academic Board may assign to the student more co-Advisors, selected among experts of the field and not necessarily members of the Academic Board. The Advisor may act as Supervisor of the thesis.

Art. 13. Organization of the educational activities

There are three types of educational (training) activities:

- Basic research training;
- Specialized research training;
- Research activity, driven by the Advisor.

Art. 14. Structure of the educational program

The following table summarizes the organization of the teaching modules and of the other activities in each year of the PhD Course.

Year	Period	Basic research training	CF	Specialized research training	CF	Research activity	CF	Total CF
I	I	Teaching module, chosen among those offered in the first level Degree Courses or Master Degree Courses	9	Acquisition of scientific specialized skills	9	Research activity	5	
I	I	Teaching module, chosen among those offered in the first level Degree Courses or Master Degree Courses	9	Participation in seminars, conferences or workshops	9	Research activity	15	
I	II	Teaching module for PhD programs	5					
								61

First-year assessment and CF assignment

II	I	Teaching module for PhD programs	5	Participation in seminars, conferences or workshops	9	Research activity	15	
II	II	Teaching module for PhD programs	5	Research activities in foreign universities or research centers	15	Research activity	10	
								59

Second-year assessment and CF assignment

III	I			Research activities in foreign universities or research centers	15	Research activity	30	
III	II					Drafting of the PhD thesis	15	
								60

Third-year assessment and CF assignment

Tot CF			33		57		90	180
--------	--	--	----	--	----	--	----	-----

Art. 15. Teaching modules in first level or master degree courses

These are teaching modules of first or second level degree courses, which are not in the university curriculum of the PhD student. The student can also choose modules of other universities, other than those in the University of Perugia, provided the relevant scientific interest for the student.

The Academic Board, after reading the curriculum of the PhD student, assigns to him/her two of these teaching modules, in order to complete the student cultural background. The PhD student carries out his/her activity and chooses in accordance with the teacher of the module one of the following activities: preparation and presentation of a series of seminars, lecture attendance and final exam, project work.

Art. 16. Teaching modules for PhD programs

These modules are usually organized by the Academic Board and are designed to expand the knowledge of PhD student on the panorama of the research carried out in the area of his/her interest. The student can also follow teaching modules for PhD programs in other universities. The Academic Board assigns to each PhD student three of these modules, chosen among the ones that have been activated, considering the student research interests.

Art. 17. Temporal sequence of the educational activities

At the beginning of the PhD Course, the Academic Board assigns to each PhD student the topics for his/her doctorate thesis.

During the first year the student:

- 1) Attends the two teaching modules of the basic research training (Art. 15), assigned by Academic Board. He/she carries out training on specific themes. The specialized training research aims to deepen the topics of the doctoral thesis. This training is developed through the acquisition of specific methodological tools (e.g., analysis of the state of the art), seminars, participation in conferences and specialized schools. Students will be guided in organizing a complete bibliographic research and in its use for highlighting aspects that are particularly significant for the thesis, in the drafting of a summary report, which highlights the state of the art on the subject and the methodological advances and applications achieved. Students will also have the opportunity to be included in a national and international scientific context, for example through participation in specialist schools.
- 2) Carries out the research activity with the Advisor's guide.
- 3) Selects the topic on which he/she will write the thesis, choosing in the range of topics assigned by the Academic Board.

During the second year the student:

- 1) Completes his/her basic scientific background, by attending the teaching modules for PhD programs.
- 2) Continues the specialized research training; the student is guided into a national and international scientific context through the participation at conferences, seminars and also by visiting an Institution abroad for a period of study and research.
- 3) Improves, under the supervision of his/her Advisor, in his/her research activities that will lead him/her to the writing of the thesis.

The third year is usually devoted to the completion of the thesis.

Art. 18. Research study abroad

The PhD student, usually in the period between the second year of the Course and the first semester of the third year of the Course, is required to perform a part of his/her research work in foreign universities or research centers, which are particularly qualified in the area of his/her research activities, and recommended by the Advisor.

During the research stay, the student can participate in learning activities, which may also include attendance at conferences, workshops and seminars.

The duration of the research stay is usually not longer than six months. In duly justified cases, the duration may be extended, subject to the opinion of the Academic Board, up to a maximum of eighteen months. In exceptional and duly justified cases, the Academic Board can authorize students to replace the research study abroad with equivalent learning activities to be carried out herein.

Art. 19. Evaluation of the activity and admission to the following years

The educational and research activity carried out by the PhD students in the three-year Course is written down in an exam record transcript, performed by the PhD student and the Advisor under the supervision and control of the Coordinator. These activities are regularly checked by the Academic Board. Also on the basis of the results of such examination, the Academic Board decides about the admission of the students to the next year or to the final exam.

In order to make it possible the evaluation of the activities that have been carried out, the students enrolled in the Course are required to present to the Academic Board, at the end of each academic year, a detailed report on the research and educational activities carried out during the year. The report is normally written in English. The Academic Board is responsible for the record keeping of such documents.

As for students enrolled in the first year: the summary report must also contain a description of the state of knowledge in the chosen research area, documented by bibliographic records quoting the sources of the scientific and technical literature consulted. The report must be completed and delivered to the Advisor and, if there is one, to the co-Advisor, by the 30th of September (of the first year of the course). The Advisor of the thesis will report to the Academic Board about the document. The opinion of the Academic Board about the admission to the next year shall require the submission of the report.

The assessment at the end of the first year can end up with one of the following three results:

- The student is *fully admitted* to the second year of the Course. In this case, he/she will get all the CF devoted to the first year.
- The student is *admitted with an educational debt* to the second year of the Course. In this case, he/she might have assigned up to a maximum of 15 CF debt, to be recovered during the second year.
- The student is not admitted to the second year.

At the end of the second year, the student shall submit to the Academic Board a report in English describing the original results achieved from the research during the year, and he/she shall discuss the contents in a seminar, whose duration is about 20 minutes. The opinion of the Academic Board on admission to the next year is subjected to the positive result of test. The assessment at the end of the second year, similar to that of the previous year, can have three results:

- The student is *fully admitted* to the third year Course. In this case, he/she will get all the CF devoted to the first year.
- The student is *admitted with an educational debt* to the third year of the Course. In this case, he/she might have assigned up to a maximum of 15 CF debt, to be recovered throughout the third year.
- The student is *not admitted* to the third year.

In order to pass from the second to the third year of the Course, the student must produce at least one article in his/her own name or in collaboration, published in journals or in international conferences, concerning the topics of the scientific areas of the PhD and of his/her curriculum.

In order to access the final exam, the student must produce at least three articles in his/her own name, or in collaboration, published in journals or international conferences concerning the topics of the scientific areas of the PhD and of his/her curriculum. The journals and the international conferences should have a documented anonymous review process, and should be classified according to the ISSN or ISBN indicators.

The journals and the international conferences should also be listed in the VQR or ERA databases. If this last condition is not verified, the Advisor may request, with written justification, the Academic Board to set up a special commission to evaluate whether the scientific production and the activity performed by the student, is eligible for passing to the next year or to the final exam.

This commission will be composed of members of the College and appointed in every single case by the college itself. The commission must be third party and so it will not include the Advisor.

Within September 30th of the third year of the PhD Course, the student shall submit to the Academic Board a report on the results performed and will discuss the contents of it in a seminar of about 40 minutes. In addition, the student shall submit a copy of the publications produced during the years of the doctorate.

The Academic Board reviews the adequacy and appropriateness of the work done. For this purpose, the Academic Board may also request external opinions to renowned experts. The Academic Board gives a written opinion on the work done by the student. This judgment is transmitted, together with the thesis and the other documents required, to the evaluation committee, as specified in Art. 25 of the University Regulations.