

INTERNAL RULES ADOPTED BY THE PhD IN PHYSICS AND ASTRONOMY UNIVERSITY OF FLORENCE

Introduction

The PhD in Physics and Astronomy comprises various research curricula: astrophysics, applied physics, physics of matter, nuclear physics, subnuclear physics, theoretical physics. The thesis topics available for each of the research areas, will be promptly illustrated to the candidates admitted to the PhD program. After consulting with the PhD students, the “Collegio Docenti” will assign the thesis topic and the name of a scientific supervisor (Tutor) of their research activity. The Tutor will be chosen among the faculty members belonging to the Department of Physics and Astronomy or to a qualified Research Institute (such as 'INFN, CNR, INAF, etc.). If deemed necessary, it will be possible to appoint an additional Tutor (preferably from the Department of Physics and Astronomy), to supervise the scientific activity of the PhD student. The theses must cover research topics of interest to the Department with a distribution that strikes a balance between the various research areas in the Department itself. If adequately motivated, the Academic Board may consider requests for changes to the topic of the thesis and / or the Tutor.

Role of Tutors

Supervisors must address and follow the PhD students assigned to them in the development of the planned research to achieve the scientific objectives. Supervisors have the following responsibilities: promote the participation of PhD students at conferences and national and international schools, as well as seminars and regional colloquia; promote the publication of research carried out by the PhD students in scientific journals, with their direct involvement; promptly inform the School Board in the case any difficulty may block the achievement of the planned scientific objectives.

Student activities

PhD students must attend the training courses and seminars, colloquia and scientific meetings organized by the Department or by other Institutions contributing to the organization of the Doctorate. A detailed plan of possible teaching courses for the PhD students is defined every year and it is advertised on the web page. The courses to be followed correspond to 42 credits, including 36 credits in the first year and 6 credits in the second year. The 36 credits of the first year are split into 30 credits of research training courses (of which at least one third has to be on different subject areas from the one related to the thesis) and 6 credits of seminars and colloquia. We assume that two seminars/colloquia correspond to 1 credit. In the second year, the 6 credits are from attending seminars and colloquia. Under request of the PhD student, the PhD Board can assign credits for participations in national and international schools. Within two months from admission to the school, the PhD students must submit a detailed plan of the courses they intend to attend, up to the amount of the expected 30 credits; courses may be chosen among those activated under other Doctorates, or Master's degrees in related scientific disciplines. Obviously, the PhD students cannot propose courses they have already attended in the Master. Over the three year duration of the course, PhD students are required to follow six credits worth of supplementary courses in "soft skills and management" as offered by the guidance and placement services of the University. At the end of each year, PhD students must submit (filling a specific form available on the web page) a summary of their training activity during the year (training courses, seminars, colloquia and participation in national/international schools).

To be admitted to the second year, PhD students should also present a short *written report* (about 4 pages) of their scientific activity. There is also an *oral exam* where each student is requested to give two seminars lasting about 20 minutes each plus 10 minutes for discussion. The seminars refer to topics of the attended courses of which at least one on a course not related to the research interests of the candidate; the seminars have not to refer to arguments related to the student scientific activity. At least one seminar must be on a different scientific area with respect to the thesis.

To be admitted to the third year, PhD students should present a *written report* (about 15-20 pages) with details on the progress of their research activities. They also have to give a one-hour *seminar* (45 minutes plus 15 minutes for discussion). All PhD students are requested to attend the seminars, and therefore the talk has to include an introduction for non-specialists. Supervisors will

be part of the evaluation commission of the seminar of PhD students assigned to them. In addition, for the admission to the third year the “Collegio Docenti” *recommends* at least one publication in journals with ISSN or participation in a conference or international school (with oral or poster presentation).

The PhD title is obtained according to the University rules. One publication in journals with ISSN and two other scientific contributions between publications or participation in international conferences and schools (with seminars or poster presentation) are *requested*. Exceptions to this rule have to be discussed and approved by the “Collegio Docenti”.

The “Collegio Docenti” may allow PhD students to carry out unpaid supplementary teaching activities, for no more than 40 hours per year (if in the first or second year), solely in the context of the didactic activity that takes place at the Department of Physics and Astronomy of the University of Florence. The PhD student may carry out paid tutoring activities, up to a maximum of 200 hours a year, subject to the authorization of the “Collegio Docenti”. Exceptions to these rules will have to be discussed and approved by the “Collegio Docenti”.

Concerning possible requests to carry out extra-curricular work activities by PhD students, without prejudice to what is declared by the Ministerial Decree of 8 February 2013 n. 45 "Regulation laying down the procedures for accreditation of the sites and doctoral courses and criteria for the establishment of doctoral courses by accredited bodies", in Article 12, Paragraph 1, namely: "Admission to the doctorate involves an exclusive commitment and full-time, without prejudice to the possibility of a specific discipline in relation to the provisions of paragraph 4 and articles 7 and 11 ", the “Collegio Docenti” will decide on a case-by-case basis according to the following guidelines:

- a) The request must reach the Coordinator at least 1 month before the start of the activity, otherwise the authorization will not be granted.
- b) The request must have been approved by the tutor (or tutors), who must certify with adequate motivation that this work activity will not be to the detriment of the PhD student's research work.
- c) Extra-curricular work activities at private companies or other bodies must in any case be of a temporary nature and limited in time. Referring to the provisions of art. 58, paragraph 4, of the CCNL 21.2.2002 of the sector of Institutions and Research and Experimentation Bodies, they must not involve a commitment exceeding 160 hours per year, in analogy to what is foreseen for researchers and technologists.

d) If the PhD student carries out a tutoring activity, the hours dedicated to the tutoring will be deducted from the limit of 160 hours referred to in point (c).

e) In the case of PhD students in the third year and about to deliver the thesis, following the request of the PhD student and subject to the favorable opinion of the tutor (s), the Board may grant the PhD student the authorization to carry out work activities even for an indefinite period the PhD School Board.

Organisation of the “Collegio Docenti” (PhD School Board)

The convocation of “Collegio Docenti” meetings are sent by e-mail, at least 7 days prior to the meeting date with a detailed description of the arguments listed in the agenda attached to the e-mail. The “Collegio Docenti” may also meet remotely using virtual meetings.

At the renewal of the Coordinator, the proposed candidate should primarily be a member of the outgoing “Collegio Docenti”. Any nomination needs to be submitted at least one month in advance of the date of appointment.

The Vice-Coordinator of the “Collegio Docenti” is suggested by the Coordinator. If the proposed nominee does not reach the majority of the votes, the Coordinator has to submit a different nominee.

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