

DOCTORATE IN MATHEMATICS: REGULATIONS

University of Rome Tor Vergata

The Board of the Doctoral School of the Department of Mathematics, taking into account the regulations of the University Doctoral School (Rectoral Decree No. 706/2022 of 09/03/2022), in order to make the Doctoral Course more effective, approves the following new regulations for the Doctoral School in Mathematics.

Art. 1. Purposes and methods of implementation

Art. 2. Quality assessment

Art. 3. Bodies

Art. 4. Methods of admission to the doctoral program

Art. 5. Admission to the final examination

Art. 6. Mode of conferring the title

Art. 7. Rights and duties of doctoral students

Art. 8. Teaching Assistants

Art. 1. Purpose and methods of implementation

1. The Ph.D. degree provides the skills necessary to train highly qualified mathematicians to work both in academia and in other public or private institutions using advanced mathematical research. It also provides the tools to develop effective approaches to teaching.
2. To achieve the objectives set forth in Paragraph 1, the doctoral program:
 - Offers specific courses for doctoral students, mainly in English, taught by departmental faculty and outside scholars.
 - Organizes regular seminars for the purpose of creating a lively scientific environment.
 - Promotes agreements with foreign research institutions or consortia.
 - Encourages periods of residence at qualified foreign institutions, also for the purpose of developing a network of international relations.
 - Maintains a quality monitoring process for the purpose of constantly improving the program and making it suitable for possible professional outlets.

Art. 2. Quality assessment.

1. The Ph.D. School monitors the quality of the course through continuous interaction with Tutors, Supervisors, students and any external partners. In particular, it collects students' evaluations and suggestions annually. It also annually monitors the professional activities of doctoral students who have graduated in the last 5 years in order to make sure that the training offered is adequate to meet professional needs.

2. The Doctoral Program takes note of the ANVUR and MUR guidelines as well as the indications coming from the Internal Evaluation Board, the Quality Presidium and the Doctoral Program Coordination Structure.

Art. 3. Organs

1. The organs of the Doctoral School are the Board, the Coordinator and the Vice-Coordinator.
2. The Board plans and supervises the teaching and research activities of the course. The Board proposes to the Department of Mathematics, within the limits of available financial resources, the compensation for external lecturers, expenses for seminars, conferences and conventions, as well as those for management. The Board may propose to the University to activate conventions with public and private entities.
3. The Board consists of at least 16 persons and is composed of full and associate professors and university researchers from Italian universities, foreign professors or experts of proven qualification proposed by the Board even if they do not belong to a university. The Board, by majority vote, elects or removes its members, approves and modifies the regulations of the Doctoral Program. For the discussion of problems of the organization of teaching and organization of the course, the presence in the College of no more than two doctoral students representing the enrolled doctoral students is allowed, with an advisory vote. The College may make use of experts in an advisory capacity only.
4. The Board annually appoints committees which, by the end of each year of the course, recommend the admission of those enrolled to the next year of the course on the basis of an interview and detailed reports on their study and research activities.
5. The Board may exclude from the course, with forfeiture of the scholarship, doctoral students who suspend without justification their research activity, study or attendance of lectures or seminars for a period of more than thirty days, or doctoral students who do not achieve sufficient results or such that the conditions set for the passage to the following year cannot be met.
6. The Board designates specialists who evaluate theses (evaluators), proposes committees for the final examinations and decides on the admission of those enrolled in the final examination based on the fulfillment of the requirements and the opinions of the evaluators.
7. The Coordinator has the educational and scientific responsibility for the course; supervises its operation and coordinates its activities; handles external relations; prepares an annual report on the status of the course, which he/she forwards to the Department of Mathematics. The Vice-Coordinator assists the Coordinator in these activities and takes his/her place in case of absences.

8. Coordinator and Vice-Coordinator are elected by a majority vote of the Board from among the full-time tenured professors of the University, present in the college itself, hold office for three academic years and may be re-elected, in the same role, consecutively only once.
9. At the beginning of the first year of the course, each doctoral student is assigned a Tutor by the Board. The Tutor is responsible for directing and assisting the doctoral student in planning and carrying out his or her course of study and for assisting in any problems, requests or suggestions from the doctoral student concerning his or her course of study and the operation of the School. Subsequently, the Ph.D. student, possibly assisted by the Tutor, proposes to the Board one or more supervisors with whom to carry out the Thesis work. The College approves or not the choice of the doctoral student based on scientific criteria and taking into account that at least one supervisor must be from an academic background.

Art. 4. Modalities for admission to the doctoral program

1. Admission to the Ph.D. program is based on a public selection held annually.
2. The selection is conducted by a committee of at least three Professors, at least one of whom must be a member of the Board. The committee is appointed annually by the Board.
3. Selection is based on qualifications, an oral examination, and a possible written examination. The modalities shall be decided annually by the Board.

Art. 5. Admission to the final examination

1. The Board admits the doctoral student to the final examination based on the evaluation of his or her research thesis.
2. The doctoral thesis shall be written in Italian or English or in another language, subject to the approval of the Board, and shall be accompanied by an abstract written in English.
3. The thesis is evaluated by at least two external evaluators appointed by the Board. The evaluators provide a written analytical judgment, proposing admission to public discussion or postponement of the discussion of the thesis for a period not exceeding six months. After this period, the thesis, accompanied by a new written opinion rendered by the evaluators, is in any case admitted for discussion.
4. For proven reasons that do not allow the submission of the doctoral thesis in the time frame provided by the duration of the course, the Board may grant, at the request of the doctoral student, extensions for a maximum of twelve months in total, without further financial burden.

5. An extension of the duration of the doctoral course for a period not exceeding twelve months may be decided by the Board for justified scientific needs, ensuring the corresponding extension of the duration of the scholarship with funds from the departmental budget.

Art. 6. Method of conferring the title

1. The final examination shall be held within six months of completing the Doctoral Program.
2. The discussion shall be held publicly before a commission appointed by the Dean. The committee shall consist of at least three persons and shall be composed of at least two-thirds individuals from outside the Department and no more than one-third from members of the Department. The supervisor and evaluators may be members of the committee. At the end of the discussion, the committee expresses a written judgment on the thesis, and, when it unanimously recognizes its special scientific importance, may award praise.
3. In the case of doctoral programs established as a result of international agreements, the committee shall be constituted in the manner specified in such agreements.

Art. 7. Rights and duties of doctoral students

1. Students in the doctoral school are required to attend courses and participate in the department's seminar activity. Within the first two years of the course, the doctoral student must follow, with satisfactory profit, at least three courses, in at least two separate mathematical fields, for a combined total of at least 15 credits (or at least 90 hours). These must be doctoral-specific courses. Courses from the master's program are admissible only with the Nulla Osta of the Tutor and the Coordinator in case they serve to fill an educational deficit with respect to the research program undertaken (in this case one credit corresponds to 12 hours). A Ph.D. student with a postgraduate training curriculum at the time of enrollment in the Ph.D. program may apply for an exemption or a different modulation of these teaching obligations. In addition, he/she may request an abbreviation of the course in accordance with Article 15 of the Regulations of the University Doctoral Schools.
2. At the beginning of the first and second academic year following enrollment in the doctoral program, the doctoral student must submit a report on the activity carried out and an oral exam consisting of an interview with a committee appointed by the Board, in which the research activity, participation in seminars and/or conferences, and teaching activity will be discussed. The latter is evaluated on the basis of communications to the Coordinator by the holders of the courses or seminars taken by the doctoral student. Unless otherwise specified by the

Board, the doctoral student is required to have completed his or her obligations prior to the interview for admission to the third year of the doctoral program. Doctoral students who do not pass the examination shall forfeit the doctoral program by rector's order.

3. Unless otherwise specified by the Board, the doctoral student is required to spend a period of at least three months, not necessarily consecutive, at one or more qualified foreign institutions for the purpose of developing international relations, advancing his or her research activity, and developing new skills. During this period, he/she may take advantage of the 50% increase in the scholarship.
4. Ph.D. students are also encouraged to participate in international conferences and conduct short periods of research and collaboration abroad to develop an understanding of the international framework of their research field. These activities are part of the assessment in the yearly interviews. The Ph.D. financially supports these activities within the limits of its availability.

Art. 8. Teaching assistant (TA) activities

1. Subject to prior notification to the Coordinator, doctoral students may carry out, as an integral part of the educational project, and without increasing the amount of the scholarship, TA activities, including paid tutoring, of students in the undergraduate and master's degree programs, as well as supplementary teaching activities. These activities, unless the Board makes an exception, shall not exceed the limit of forty hours per academic year.
2. Subject to the approval of the Board, doctoral students may carry out teaching activities at other universities, provided that they are compatible with other educational activities. In particular, provided that the outside teaching activity:
 - does not jeopardize attendance at Doctoral courses;
 - Is compatible with the TA requirements for students at our university;
 - does not involve an excessive teaching load (normally not exceeding 25 hours per year);
 - has received written clearance from the respective tutor.