



Regulations for the PhD programme in Civil Engineering and Architecture – University of Parma

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Preface

The present regulations govern the internal organisation and operation of the PhD programme in Civil Engineering and Architecture, as well as the training activities, admission to the course, and the rights and duties of doctoral students. For any matters not specified herein, please refer to the University Regulations in force and to the Regulations of the PhD School in Engineering and Architecture.

Art. 1 – Definitions

In the following we mean:

- by PhD: the PhD in Civil Engineering and Architecture of the University of Parma;
- University Regulations: the Regulations of the courses for the awarding of the PhD from the University of Parma, issued by D.R. 966 of 20/04/2018 and subsequent amendments;
- Rector: the Rector of the University of Parma;
- by SDIA: the Doctoral School of Engineering and Architecture of the University of Parma.

Art. 2 – Establishment, objectives and structure of the PhD course

The PhD course is established within the SDIA by Rectoral Decree. Its duration is specified by institutional decree and in any case is not less than three years.

The course aims to provide:

- (i) a strong knowledge of the main problems of Civil Engineering and Architecture and the development of analytical skills in different disciplinary fields through the completion of basic preparation and the learning of updated research methodologies;
- (ii) theoretical knowledge and specialised skills in various disciplinary sectors of Civil Engineering and Architecture, oriented toward the design and management of anthropic interventions in the territory and the building of cities with respect to environmental sustainability, taking as a unifying element the in-depth study of the social, cultural and regulatory aspects that condition interventions in architecture and built-in heritage.

The course provides a common interdisciplinary basis and is divided into the following subject areas:

- *Infrastructure and Environmental Engineering*
- *Structural and Geotechnical Engineering*
- *Architecture and Urban Planning*

Infrastructure and Environmental Engineering has the following objectives:

1. The training of experts in the area of transport infrastructure;
2. The development of specialist skills in the field of surveying, management and analysis of territorial data, as well as the control and monitoring of displacements and deformations at all scales;
3. In-depth study of topics related to surface and groundwater;
4. In-depth study of selected topics related to slope stability (natural and artificial) and underground excavations.

Structural and Geotechnical Engineering aims to:

1. Develop students' specialist skills in the characterisation of the mechanical behaviour of construction materials;
2. Develop students' ability to create nonlinear formulations for the analysis of the mechanical behaviour of structural components and structures;
3. Develop students' specialist skills in the characterisation of the mechanical behaviour of soils, foundation structures and earthworks.

Architecture and Urban Planning has as its objectives the deepening of:

1. The theoretical, formal, distributive and functional aspects of architecture, as well as the analysis and criticism of architecture and the contemporary urban environment;
2. The problems and techniques for the survey and graphic and video representation of architecture, both at the level of the building and of the urban agglomeration;
3. Issues related to the construction, regeneration and management of urban settlements and their relations with the territorial infrastructures and the landscape;
4. The historical, artistic, technical and aesthetic themes of past architecture, addressing both the critical knowledge and the cultural valorisation of the present time;

5. The conceptual and operational tools for the knowledge of historical buildings and for the definition of intervention methodologies aimed at their conservation and restoration.

Art. 3 – PhD bodies

The bodies of the PhD are

- the Faculty Board;
- the PhD programme Coordinator.

Art. 4 – Faculty Board

The provisions of Article 9 of the University Regulations concerning composition and duties apply to the Board of Lecturers.

The Faculty Board:

1. Defines and organises the educational activities of the PhD course in collaboration with the SDIA;
2. Proposes the composition of the Selection Committees for admission to the PhD course and for the final examinations to the Rector, who appoints them by decree;
3. Assigns a Tutor to each doctoral student;
4. Annually verifies the activities of doctoral candidates, adopting appropriate forms of monitoring; in particular, it controls
 - the training and research activity plan for each doctoral student,
 - annual reports,
 - doctoral theses;
5. Decides on admission to the following year;
6. Authorises research activities abroad by doctoral students;
7. Expresses its opinion on proposals for the stipulation of international cooperation agreements for doctoral students;
8. Appoints external evaluators for each candidate for the final examination (at least two);
9. Performs all the other functions envisaged by the University Regulations.

The Members of the Board are required to behave in accordance with the principles and rules contained in the Code of Ethics of the University of Parma.

Art. 5 – Faculty Board meetings

The Board is convened by the Coordinator by e-mail at least five days before the meeting. The agenda is normally attached to the convocation. The ordinary venue for the meetings is the Department of Engineering and Architecture.

The meetings of the Board are valid with the presence, also by telematic means, of the absolute majority of the members in the first convocation, without counting the representatives of the doctoral students, deducting the justified absents; and of one-third of the members in the second convocation, without counting the representatives of the doctoral students, deducting the justified absents. At least 24 hours must elapse between the first and second convocations. Only one convocation e-mail is allowed and should indicate both dates. The members of the Board may not delegate others in their function.

Resolutions are adopted with the favourable vote of the majority of those present. In the event of a tie, the vote of the Coordinator prevails.

The minutes of the Board meetings are drawn up and made available in a special online archive (with restricted access) no later than 15 days after the date of the meeting and submitted to the Board for approval, normally at the following meeting.

The meeting is ordinarily held in mixed mode, i.e., allowing some members to participate remotely, connected by video/audio conference using a University web platform, according to the procedures listed below.

1. Telematic technologies shall enable:
 - the visual and auditory perception of the participants,
 - the identification of each participant,
 - the intervention, as well as the expression of the vote, in real time on the topics addressed in the discussion.
2. The instruments of remote participation must ensure:

- the confidentiality of the meeting;
- simultaneous connection between the participants on an equal footing;
- the viewing of the proceedings of the meeting and the exchange of documents via e-mail and/or computer file-sharing systems;
- the expression of the vote of the whole Assembly in a reasonable time;
- security of data and information.

3. Members are allowed to connect from any place that ensures compliance with the provisions of these Regulations, provided it is neither public nor open to the public and, in any case, adopts technical devices that guarantee the confidentiality of the meeting.

4. If there are rules in force that preclude meetings in person, the meeting shall be held exclusively by telematic means, respecting, for the purposes of the validity of the meeting and of the resolutions, the following requirements:

- In the notice of convocation sent by electronic mail, it must be specified that the meeting shall be held exclusively by telematic means, indicating the operational mode of participation;
- If, at the beginning or during the course of the meeting, the connection of one or more members is impossible or interrupted due to technical problems, if the quorum is present, the meeting may still be held, and the absence of the member(s) unable to maintain connection shall be considered justified;
- In the event of connection problems during a vote, if the connection cannot be restored in the near future, the President shall declare the vote void.

5. Each participant in the remote session shall cast his vote openly or by name, including via chat. Notice of these arrangements shall be given at the start of the meeting.

6. The minutes of the remote meeting shall indicate: the location of the Secretary taking the minutes, which is to be understood as the seat of the meeting, and the names of the members present by remote means, as well as the method of connection of each.

7. The minutes shall record any technical problems that may arise during the meeting and any votes.

Art. 6 – The Coordinator of the PhD programme

1. The PhD Coordinator carries out the tasks established in Art. 9 of the University Regulations, to which reference is made.

2. The Coordinator annually receives reports on the activities carried out by the doctoral students and convenes the Faculty Board for the evaluation of such activities.

3. The Coordinator is responsible for collecting the theses of the doctoral candidates and for submitting them to the Evaluators. He or she also receives the judgements of the Evaluators and transmits them to the doctoral candidate and to the appropriate office of the University.

4. The Coordinator may designate, from among the members of the Faculty Board, a Vice Coordinator, chosen from among the full-time tenured full- or associate professors, to substitute for him or her in all his or her functions in the event of absence, temporary impediment or termination. The Vice Coordinator shall support the Coordinator in the management of the Doctorate degree and take on any duties assigned to him or her by the Board.

5. On the occasion of meetings of the Faculty Board, the Coordinator shall designate a Secretary who shall draw up the minutes of the meetings and assist him or her in carrying out his or her duties.

6. The Coordinator remains in office for three years from 1 January, renewable once. The percentage exceeding 50% of the term of office counts for a full term. After two consecutive terms of office, at least three calendar years must elapse before a candidate can stand for re-election. The Coordinator must ensure a number of years of service at least equal to the duration of the term of office before the date of retirement and must also meet the scientific requirements provided by the Ministerial Guidelines for the accreditation of PhD courses. In cases of early resignation, the newly elected Coordinator shall remain in office until the natural expiry of the term of office of the previous Coordinator, considering his or her term of office in full if it is a percentage greater than 50% of the natural term of office.

Art. 7 – Elections of the PhD programme Coordinator

1. Elections are called by the Dean of the Board at least 60 days before the expiry date of the term of office or within 15 days after the Coordinator ceases to hold office for any other reason.

2. Elections shall be held no earlier than 10 days and no later than 30 days after their call.
3. The passive electorate consists of the full professors of the Board of the permanent staff of the University of Parma who have communicated their candidature in due time to be formalised during a meeting of the Faculty Board, to be held at least 10 days before the vote.
4. If a full professor does not stand as a candidate, the date of the elections shall be postponed for at least 10 days, and the electorate shall be extended to associate professors of the Board of the permanent staff of the University of Parma who have communicated their candidature to be formalised during a new assembly.
5. The active electorate consists of all the members of the Board, including the representatives of the doctoral students.
6. The Dean, chosen from among the professors of the Board at the University of Parma, after consulting the Board, shall appoint an Electoral Commission composed of three members, one of whom shall act as President and one as Secretary. Voting is by secret ballot, with the expression of a single preference on a ballot form containing a pre-printed list of the names of the candidates through a cross.
7. The Coordinator is elected by an absolute majority of the eligible voters in the first convocation, by an absolute majority of the voters in the second convocation, and by a relative majority of the voters in the third convocation.
8. After the conclusion of the ballot, the Commission draws up the minutes and sends them to the Dean for proclamation, as well as to the appropriate University Office.

Art. 8 – Quality Assurance and Quality Assurance Manager

The PhD course conducts its activities in accordance with the principles and indications of the University for quality assurance.

To this end, the figure of the Head of Quality Assurance (RAQ) has been established with the following duties:

1. Assisting the Coordinator in planning the improvement actions to be proposed to the Faculty Board and monitoring their implementation;
2. Monitoring the regular performance of the training, programming and administrative activities inherent to the PhD programme;
3. Verifying that the syllabi of the courses provided are complete and exhaustive in all points;
4. Verifying the delivery of the courses on the dates scheduled in accordance with the course programming;
5. Monitoring the PhD course website, pointing out the need for changes and/or additions.

The RAQ is appointed by the Faculty Board from among its members. The appointment has a duration of three non-renewable years.

By 31 January of each year, the Board shall meet to discuss the proposals of the Coordinator and the RAQ and decide on the matters.

Art. 9 – Tutor

After students' admission to the PhD programme, the Faculty Board assigns each student a Tutor, who will act as supervisor of the research activities.

The Tutor has full responsibility for the scientific direction of the doctoral student's thesis and must ensure that the research work connected with the thesis is carried out regularly, guaranteeing the doctoral student the assistance necessary for the smooth performance of the research activity. The Tutor must be available to discuss the results and reschedule, if necessary, the research work at the request of the doctoral student. He or she shall also be responsible for developing the doctoral student's ability to communicate and present his or her scientific results.

In agreement between them, the doctoral student and the Tutor may submit to the Board, by the end of the second year of the course, a sufficiently motivated request to change the Tutor.

The Tutor, particularly in the case of co-tutored theses, may ask the Board to appoint a co-Tutor to assist in the performance of his or her duties.

Art. 10 – Training activities for doctoral candidates

During the three years of the course, doctoral students must acquire 180 credits. The acquisition of 1 credit implies the doctoral student's commitment corresponding to 25 h divided between frontal lessons and a study or research commitment.

The number of annual credits that can be acquired is **60** and is divided into the following:



- *Interdisciplinary and disciplinary training activities.*
- *Scientific training activities* (attending conferences, workshops, internships, seminars, and summer schools offered by the PhD programme and/or attended at other Italian or foreign locations; seminars on how to participate in calls for funding for research projects (ERC, SIR, PRIN, Horizon 2020)); publications.
- *Teaching activities* (integrative didactics carried out by the doctoral student within the courses offered by the University of Parma, tutoring, and exercises, for a maximum of 20 h per year).
- *Research* (thesis work).

During the three-year period, at least 20 credits must be obtained in *scientific and training activities*, with the following requirements:

- At least 8 credits in interdisciplinary training activities;
- At least 8 credits in disciplinary training activities.

Up to 20 supplementary credits may be acquired through other training methods (participation in seminars, conferences, etc.).

The acquisition of these credits requires participation in the training activity and a judgement of suitability by the teacher responsible for the course, expressed according to the evaluation criteria reported in the syllabus.

INTERDISCIPLINARY AND DISCIPLINARY TRAINING ACTIVITIES

The following types of training activities are recognised by the SDIA:

- Teaching provided by the SDIA (ISD), with a final test. 1 credit = 6 h of frontal lessons + 19 h of study commitment.
- Advanced teaching provided by PhD programmes (ICD) related to the SDIA. A final test is required. 1 credit = 6 h of lectures + 19 h of study commitment.
- External university teaching (IUE) (advanced teaching provided by a master's degree and second-level master's courses, teaching at other schools/doctoral courses). A final test is required. Credits communicated by the teacher.

SCIENTIFIC TRAINING ACTIVITIES

The scientific training activities can be traced back to the following typology indicated by the SDIA:

- Other external teachings and short courses (IE) (summer schools; short courses; tutorials; training courses for the use of equipment, software, and/or particularly complex technologies; management training courses). A final test is required. 1 credit = 8 h of frontal lessons + 17 h of study commitment.
- Attendance certificates for courses of the previous types (in education and scientific training) and seminars (AF). A final examination is not required. 1 credit = 25 h.
- Works published in journals or conference notes in which the doctoral student is corresponding author, 1 credit per publication.

The recognition of credits requires documentation of the activities carried out, indicating the type, number of hours of attendance or number of credits communicated by the lecturer for the IUE.

STUDENT TEACHING ACTIVITIES

The student can carry out teaching activities (optional) up to a maximum of 20 h per year. This activity (lectures, seminars, supplementary teaching activities, tutoring for undergraduates) does not include participation with the Examination Committees and must take place on topics relevant to the research project. This activity must be reported under "other activities" in the year-end report.

The teaching activity may be assigned to the student with the student's consensus. The student can carry out tutoring activities with the Coordinator's authorization. The faculty board recognises 1 credit for every 20 h of teaching activity.

RESEARCH

During the three-year period, at least 120 credits of research activities are required for thesis work.

Doctoral students are strongly encouraged to enrich their training at foreign research facilities in appropriate locations identified by their Tutor for sufficiently extended periods of time (90-180 days, even if not continuous). Research activity abroad relevant to the doctoral student's research topic is recognised with 5 credits for stays of at least one month, even if not continuous.

Art. 11 – Advanced lectures provided by the PhD course

The PhD course offers students two types of teaching activities: lectures, with a number of credits ranging from 2 to 6 (1 credit = 6 h of frontal teaching), and seminar cycles (1 credit).

The proposal to initiate a course is made by a member of the Faculty Board and is accompanied by the syllabus indicating the language, method of delivery (in-person, streaming, mixed) and examination, and is subject to approval by the Faculty Board to be included in the annual Manifesto. The Board decides on the initiation of the course after a favourable assessment of its consistency with the objectives of the PhD programme and the adequacy of the syllabus to the level of doctoral higher education.

The proposal of a seminar cycle is made by a member of the Board and is accompanied by a description of the contents and an indication of the language, mode of delivery (in-person, streaming, mixed) and assessment, and is subject to the approval of the Board.

For each course, a responsible teacher is identified who must provide at least half of the course credits; any other teacher involved in the course must provide at least 1 credit. It is permissible to split the credits awarded by a single teacher.

It is advisable that the courses be offered periodically such that students of each PhD cycle may attend them. This periodicity (annual, biennial, or triennial) must be specified for the three years of each PhD cycle.

Art. 12 – Criteria for the attribution of PhD teaching responsibilities

The Board decides on the appointment of teaching responsibilities on the basis of a reasoned proposal from a member of the Board.

With regard to proposals from teachers who are not members of the Board, one of the following conditions must be met: possession of a PhD for at least 5 years, with continuity in research documented through consolidated databases of research products (Scopus or WOS for bibliometric areas, IRIS or similar for non bibliometric areas); possession of the qualification of university professor (associate or full professor); possession of the National Scientific Qualification of associate professor; the passing of two of three indicators with reference to ASN (National Scientific Qualification) indicators to be an ASN Commission member.

The Board awards the teaching assignment following a positive evaluation of the teacher's CV in relation to the teaching content.

The Board may depart from the application of the above criteria in the presence of highly qualified candidates proven by internationally recognised research results, provided that the proposed teacher's CV is consistent with the teaching content.

Art. 13 – Admission requirements

The requirements for admission to the PhD programme are those provided for in Art. 5 of the University Regulations. The deadlines and starting dates are expressly indicated in the call for admission.

Art. 14 – Selection mode

1. Admission to the PhD programme occurs through a selection procedure involving comparative assessment based on qualifications and oral interviews in compliance with the provisions of Art. 5 of the University Regulations. The qualifications that may be assessed, relative scores and assessment methods are defined annually and are announced in the call for applications.

2. The Selection Committee for admission to the Research Doctorate is indicated by the Faculty Board and appointed by the Rector.

3. The Selection Committee is composed of five members of the Faculty Board, with at least one member and no more than two members for each of the three thematic areas. The members are randomly selected from a list of candidates agreed upon by the members of the individual thematic areas, consisting of two candidate members and two candidate alternates for each thematic area. A member of the Board who has been a member of a Selection Committee shall be excluded from the list for the following two years. The members of the Selection Committee must meet the criteria established by the University for participation in the Evaluation Committees for the award of Annual Research Grants.

Art. 15 – Admission to subsequent years and the final examination

At the beginning of each year, the doctoral student discusses with the Tutor the annual plan of educational activities to plan the scientific, teaching and research activities in relation to the year in progress and, above all, the thesis work.

At the end of each year, the student submits to the Tutor a final report containing an analytical list of the activities carried out, certification of the qualifications obtained, and a summary of the research activity carried out

(methodology, objectives, results obtained). The Tutor verifies its consistency with the educational, training and research activity plan, approving it or putting his or her own observations in writing, if necessary. The doctoral student then sends the final report form, countersigned by the Tutor, to the PhD Coordinator.

At the end of each year, the Faculty Board, having acquired the annual final report form for the doctoral candidate, will hold an assessment meeting during which the student will present an oral report, possibly also via video conference, on the activities carried out, illustrating the progress of his or her research project to the Faculty Board and any other interested scholars. A positive assessment by the Faculty Board is mandatory for admission to the following year.

A negative assessment results in dismissal from the PhD course.

Once the student's annual report has been positively evaluated, the Faculty Board recognises the credits acquired as a result of the annual activity and communicates them to the appropriate University Office.

At the end of the third year, the student's written report on the activities carried out during the three-year period, the Tutor's opinion on the thesis and the reports of two external Evaluators will be used by the Faculty Board to decide on the candidate's admission to the final examination.

Art. 16 – Rights and duties of doctoral students

1. Doctoral students must devote themselves assiduously and continuously to training, study and research activities, in accordance with the procedures governed by these Regulations and the University Regulations. They must indicate their affiliation ("Doctoral Student/Candidate in Civil Engineering and Architecture, University of Parma, Italy") in all institutional activities.
2. Doctoral student bursaries financed by external bodies, which provide for the performance of a specific research activity, shall bind the assignees to the performance of said activity, on pain of forfeiture of the bursary.
3. With the prior authorisation of the Faculty Board, a limited subsidiary and supplementary teaching activity is allowed, which must not compromise the research training activity foreseen for the doctoral students and must not exceed 20 h per year.
4. The Faculty Board may authorise, upon request of the Tutor, the performance of limited work activities, provided that they do not negatively affect the results of the doctoral student's training and research.
5. Doctoral candidates are required to behave in compliance with the principles and rules contained in the Code of Ethics of the University of Parma and in the University regulations and, more generally, in accordance with the international guidelines for integrity in research.
6. Doctoral students must ensure that their research activities conform to the fundamental ethical standards of University life and to the Guidelines for Good Scientific Practice and Dissemination of Research adopted by the University, particularly avoiding the presentation of the work or thought of others as their own. The Coordinator, or his or her delegate, shall verify the absence of plagiarism in the thesis, also via specific software.
7. Violation of academic ethics and other behavioural duties shall entail the disciplinary responsibility of the doctoral student.
8. The doctoral candidates shall elect a representative for each cycle, who shall remain in office for the entire three-year period and shall participate in the meetings of the Board, in accordance with the current University Regulations. The vote for the representative of the new cycle is called by the Coordinator, who will appoint the Electoral Commission, within the month of December.

Art. 17 – Examination committee for the award of the title

The members of the Examination Committee for the award of the title of PhD, including the substitutes structured at Italian universities, must meet the criteria established by the University to participate in the Evaluation Committees for the award of Annual Research Grants. The Board evaluates and approves participation in the Examination Board for all other members.

Art. 18 – Referral rule

For all matters not expressly mentioned in these regulations, the provisions of applicable national regulations, partner institutions for cooperation projects, the University Regulations and the SDIA Regulations apply.