

PhD program hand-
book



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1 Purpose

Constructor Institute offers a doctorate degree as its highest educational level.

The successful conduct of modern research requires, as one of its essential components, the active participation of junior collaborators, who are learning the discipline of research and contributing their own ideas. The status of “doctoral Student” is a dual concept, including both the “student” part, as the candidate is still learning, and the researcher part, as the candidate is also expected to advance the topic by providing a fresh influx of ideas unencumbered by prejudices and by possibly contradicting conventional wisdom. This combined role, going back to the Socratic system and perfected by the Humboldt model of modern research universities, has been a catalyst for many scientific advances.

Constructor Institute’s doctoral program recognizes this dual nature of a PhD thesis and fosters both the personal development of doctoral Students and their contribution to Constructor Institute’s leading-edge research. The Constructor Institute doctoral program is comparable, in its purpose and requirements, to the doctoral program of top research universities in Europe, North America, and the rest of the world, while considering the special goals and characteristics of the Constructor Institute project. The rules of the program appear in the following sections.

The official name of the degree is “Doctor of Sciences in <discipline>, Constructor Institute” where <discipline> is one of the recognized Constructor Institute academic fields, such as Computer Science. “Doctor of Sciences” may be abbreviated as “Dr. Sc.” Receiving a doctoral degree means being recognized as a member of the research community, able to conduct scientific research as a junior professional researcher. The successful completion of a doctoral program (per section 13) confers to the successful candidate the right to use the title “Doctor of Sciences” or “Dr. Sc.” or just “Dr.” if the context is clear.

Terminology: in the present document, the terms “faculty member” and “professor” both denote a professor at Constructor Institute (assistant, associate or full professor) as defined in the “Faculty Statute for Constructor Institute”.

2 Doctoral Committee

A Doctoral Committee including at least two professors of Constructor Institute shall be responsible for administering the Doctoral program. The Doctoral Committee shall be appointed by the Academic Senate based on a proposal by the Provost.

Appointments to the Doctoral Committee shall be for three years, renewable.

The Doctoral Committee shall elect a chair from its members, for a term of three years renewable at most once consecutively.

3 Requirements for Entering the Doctoral Program

To be admitted into the Doctoral program, any candidate must have completed a master’s degree from an educational institution recognized by Constructor Institute. The Doctoral Committee (Section 2) shall maintain a list of such institutions. For universities applying the European “Bologna” system, the master’s degree must correspond to the Bologna standard. For universities belonging to other systems, the Doctoral Committee is responsible for determining whether a given master’s degree is acceptable.

In special circumstances and for exceptional candidates, applicants may be admitted without a master’s degree under the provision that in the first one or two years of their Doctoral studies they will complete the requirements for a Constructor Institute master’s or equivalent program, with the continuation of the subject to successful completion of this program as determined by the Doctoral Committee.

4 Supervisor

Every doctoral student shall be directed by a Supervisor, who shall be a Constructor Institute professor.

The Supervisor shall be responsible for steering the student and ensuring the scientific soundness of the work.

Throughout the process of Doctoral research, the supervisor shall ensure that the doctoral student has appropriate research conditions and adequate supervision. The supervisor shall devote sufficient time for such supervision, and, if needed, designate other members of the research groups, such as postdoctoral researchers, to help with supervision on a daily basis. The doctoral student shall be responsible for devoting best efforts to the research, keeping abreast of other current research, learning and applying sound research principles, and keeping the supervisor frankly and honestly apprised of progress and difficulties encountered.

5 Substitute Supervisor

In addition to the Supervisor, every doctoral student shall have a Substitute Supervisor, who shall also be a Constructor Institute professor.

The role of the Substitute Supervisor shall be to keep informed of the work and its progress, so as to be able to take over supervision of the Doctoral work should the Supervisor become unavailable for any reason.

6 Unavailability of the Supervisor

If the supervisor is no longer able to supervise the doctoral work for any reason, the Provost shall appoint a new supervisor after consultation with the doctoral student and the substitute supervisor. The first choice for new supervisor shall be the substitute supervisor, with the appointment of a new substitute supervisor.

7 Research Plan

Within 6 months of the start of a doctoral program, every doctoral student shall submit a PhD research plan; the format and rules for the research plan shall be defined by the doctoral committee. The research plan shall be forwarded to the doctoral committee and substitute supervisor conditional on approval by the supervisor. Continuation of the doctoral program beyond the first year shall be conditional on approval of the research plan by the Doctoral Committee, after possible revisions.

8 Requirements for Completing the Doctoral Program

To receive the Doctoral degree, a candidate must:

- Complete course obligations (section 7).
- Submit a dissertation at most three weeks ahead of the planned defense date.
- Successfully defend the dissertation, leading to approval by the Thesis Committee (Sections 8 and 11).
- Have the results of the defense approved by the Doctoral Committee.

9 Course Requirements and other Constraints

By the time of the defense the candidate must have received course certificates corresponding to at least 12 ECTS (European Credit Transfer System) credit points, from courses approved by the Supervisor.

The courses may be taken at Constructor Institute, in other universities, or at venues such as approved summer schools.

While they are working on their research work and thesis, doctoral students may be involved in other activities, such as employment at Constructor Institute as a teaching assistant or, in the case of part-time doctoral programs, at other institutions. The Provost of Constructor Institute shall be responsible for ensuring that any such activities do not jeopardize the successful pursuit and completion of the doctoral work and resolve any conflicts that might arise in this respect.

In the case of a doctoral student employed by a company, the doctoral process and topic shall be subject to approval by the employing company, and the topic shall, whenever possible, be chosen as being of interest both to Constructor Institute's research and to the employing company.

10 Thesis Committee

The defense shall be overseen by a Thesis Committee whose composition must meet the following criteria:

- It includes the Supervisor.
- It includes at least one other professor of Constructor Institute
- It includes at least one professor from an accredited university other than Constructor Institute, holding a doctorate.

The Thesis Committee may, particularly for theses with an applied content, include other individuals chosen for their expertise and reputation, for example representatives from industry or industrial research.

The Substitute Supervisor (Section 5) may be, but is not required to be, a member of the Thesis Committee.

The Thesis Committee's composition shall be subject to the approval of the Doctoral Committee, based on a proposal submitted at least six weeks in advance of the proposed defense date, including the CVs of the proposed members. The proposal shall also specify whether the defense is planned as onsite, remote, or a combination.

11 Duration and Continuation of the Doctoral Program

The expected duration of the doctoral work (including a possible initial master's-equivalent program as stated in Section 3) shall be 3 to 5 years, with a preference for a shorter completion time.

The maximum allowed time is 6 years, beyond which the continuation and eventual defense of the thesis shall only be permitted if the Doctoral Committee approves a request from the Supervisor for a special extension.

Contracts for doctoral students shall be defined for durations of no more than one year, renewable within the overall duration that has been set for the given doctorate, in accordance with the constraints defined above. At the end of every contract period, the supervisor shall examine the progress of the doctoral student, including in a progress assessment meeting with the doctoral student, and decide whether the contract should be renewed.

Non-renewal decisions shall only be taken (other than for lack of funding) in cases of clear lack of progress making the successful completion of a doctorate unlikely. They shall be notified to the PhD student at least one month in advance of the expiration of the current contract and shall be subject to (1) a discussion with the student; (2) the agreement of the substitute supervisor; and (3) the agreement of the doctoral committee.

Outside of non-renewal of the contract as just defined, the Doctoral Committee shall have the possibility of terminating the contract of any doctoral student found to have committed serious offenses, such as unethical behavior, scientific fraud or dishonesty, or other behaviors gravely violating community standards or susceptible to cause harm to Constructor Institute or its reputation. Such termination processes shall protect the rights of the doctoral student to seek remediation as per section 15

12 Publications and Scientific Standards

During their doctoral work, doctoral students are expected to participate in the work of the international scientific community and to author or co-author papers in high-level venues.

Throughout their work up to and including the dissertation, doctoral students are expected to follow principles of research ethics, as recognized by the scientific community and stated in the Constructor Institute Code of Research Ethics. The Supervisor shall be responsible for teaching these rules to doctoral students and enforcing them.

13 Defense and Outcome of the Doctoral Process

Once the Doctoral Committee has approved the Thesis Committee and the proposed defense date, and the Supervisor has signaled acceptance of the draft dissertation text, the defense shall be scheduled.

The defense shall take place onsite, remotely, or through a combination of these modes as specified in the defense proposal approved by the Doctoral Committee.

The Doctoral Committee shall appoint a Defense Chair entrusted solely with ensuring the proper organization and process. The defense shall be announced in advance and open to all Constructor Institute members. At the discretion of the Defense Chair, it can be opened to other members of the public. It shall by default be structured as follows:

- Opening, reminder about the rules and presentation of the candidate by the Defense Chair (5 minutes at most).
- Presentation by the candidate (30 minutes).
- Question-and-answer session by the Thesis Committee members (no limit in time).
- Questions by the rest of the audience if any.
- Private session of the Thesis Committee, with no others present, to decide on the outcome.

Changes to this default format are possible subject to the prior approval of the Doctoral Committee.

The outcome of the defense shall be one of:

1. Acceptance of the thesis without change.
2. Acceptance of the thesis with minor changes to the dissertation, not affecting the awarding of the degree.
3. Acceptance of the thesis subject to major revisions.
4. Rejection of the thesis.

In cases 2 and 3, the deadline for submitting a revised version shall be set by the Thesis Committee, with a maximum of 6 months. In case 2, the doctorate degree shall be awarded if and only if the Thesis Committee approves the revised version within the set deadline. Such approval (or disapproval) can be obtained through various forms of interaction such as email and does not require a new meeting of the Committee or a new defense, unless so desired by the Committee.

Final granting of the doctoral degree shall be the responsibility of the Doctoral Committee and shall only occur in case 1, case 2, and in case 3 after Thesis Committee approval of the revision). The candidate shall then be granted to use the doctoral title as defined in section 1, shall receive an appropriate doctoral diploma, and shall be invited to the appropriate Constructor Institute graduation ceremony for the awarding of the degree

14 Revocation of the Doctoral Degree

In case serious misconduct or scientific fraud having affected the result of the doctoral degree and uncovered after the awarding of the doctoral degree, the Doctoral Committee shall have the possibility of revoking the degree.

15 Disagreements and Disputes

In case of disagreements affecting a doctoral student, for example early termination of the doctoral studies for lack of progress or for misconduct (section 11), non-awarding of the degree (section 13), revocation of the degree (section 14), the doctoral student shall have the possibility of seeking remediation. The first attempts at remediation should always be with the supervisor and substitute supervisors. If they do not succeed, requests should be addressed to the following (sequentially if steps do not succeed):

1. The Provost (unless there is a conflict of interest, e.g. the Provost is the supervisor whose decision is being contested).
2. The Doctoral Committee.
3. The Academic Senate.
4. The President (with the same qualification as in case 1).
5. The Board of Directors.

Successive requests shall only be considered if submitted at most 2 months after the result of the preceding step. Throughout these steps, the doctoral student shall have the possibility of presenting arguments to the respective people or bodies.

16 Enforcement and Changes

The Provost of Constructor Institute shall be responsible, with the help of the Doctoral Committee, for the enforcement of the present regulations.

Any change to the present regulation is subject to approval by both the Provost and the Academic Senate.

C>ONSTRUCTOR
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