



Natural Sciences Doctoral Studies Program Regulations

at Dahlem Research School

Freie Universität Berlin

Preamble

On the basis of Section 74 of the Berlin Higher Education Act (*Berliner Hochschulgesetz – BerlHG*) in the revised version as it was made public on July 26, 2011 (GVBl., p. 378), last amended on December 17, 2020 (GVBl., p. 1482), the joint commission appointed by the Department of Biology, Chemistry, Pharmacy and the Department of Physics at Freie Universität Berlin issued the following doctoral studies program regulations for the “Natural Sciences” doctoral studies program on January 5, 2021.

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Section 1 Scope

These regulations govern the admission requirements, the application and selection processes, and the content, structure, objectives, organization, and performance requirements for the Natural Sciences doctoral studies program at Dahlem Research School (DRS) of Freie Universität Berlin.

Section 2 Components and Objectives of the Doctoral Studies Program

(1) The doctoral studies program supplements the scientific research done as part of the doctoral research project, especially the completion of the dissertation (as stipulated by the doctoral degree regulations of the applicable departments), by means of an academic curriculum (as described below under Section 7.1 to 7.3 and in Sections 9–12) and in conjunction with the advising and supervision provided through the program.

(2) The goal of the doctoral studies program is to produce excellent researchers. The academic curriculum (as described below under Section 7.1 to 7.3 and in Sections 9–12) and the advising and supervision provided through the program are designed to promote the achievement of this goal. In addition to academic and scientific training, participants will also gain training in cross-cutting areas/transferable skills, such as knowledge transfer and research communication, research management, and foreign languages relevant to their scientific field. The doctoral studies program is designed to prepare participants to assume junior positions at universities, research institutions, and in public or private institutions for which special scientific qualifications are required.

Section 3 Admission Requirements, Application, and Selection Process

(1) Applications may be submitted at any time. Students who are admitted to the program generally take up their studies on April 1 (for the summer semester) and October 1 (for the winter semester) of each year.

(2) The joint commission for the doctoral studies program appoints a selection committee. The members and their alternates are appointed by the chairperson of said joint commission under the authority of the university's Executive Board. The selection committee includes the following members:

- a university professor who serves as the chair of the committee and the official representative of the doctoral studies program as per Section 6,
- usually, at least two professors immediately involved with the implementation of the doctoral studies program,
- two students from the doctoral studies program, who serve in an advisory capacity.

Academic staff employed by the university who hold a doctoral degree and are immediately involved with the implementation of the doctoral studies program represent one voting member of the selection committee. Furthermore, the selection process is to be conducted with the participation of a local gender equality officer. Members of the selection committee are appointed for a two-year period.

(3) The admission requirements are as follows:

- (a) The relevant department's doctoral board must submit a statement in writing asserting that the candidate can commence doctoral study unconditionally and with no time constraints,
- (b) Applicants who have completed their qualifying university degree at an institution where English was not the language of instruction must demonstrate proficiency in English to at least the B2 level of the Common European Framework of Reference for Languages (CEFR) or equivalent. Applicants whose first language is English also fulfill this requirement. The selection committee decides on the equivalence of the candidates' language qualifications.
- (c) Submission of a short, convincing letter of motivation, explaining why the candidate wishes to complete a doctoral studies program (no longer than one page),
- (d) a CV that shows the candidate's activities and experience in the particular field of doctoral study
- (e) a short description of the proposed doctoral research project,
- (f) in some cases, attendance at a selection interview (as described in Section 4).

(4) Applicants for the doctoral studies program should submit their written application materials, including all the documents outlined in Section 3.3a to 3.3e above, to the chairperson of the doctoral studies program's selection committee.

(5) The selection committee makes its admissions decisions based on the written application materials (as outlined in Section 3.3) and, where applicable, on the candidate's performance in the selection interview (as described in Section 4). If potentially suitable candidates fail to submit complete applications, the selection committee may provide them with a deadline to remedy this. If the selection committee requires additional material in order to make a decision, they may request that applicants provide an additional written or oral statement addressing the committee's concerns.

(6) If, at the end of the selection process, there are more suitable candidates than there are available places in the program, the selection committee will rank the candidates. Under normal circumstances, the ranking of the candidates is determined by the following criteria:

- (a) Academic record based on the grades received for previous degrees and coursework,
- (b) the quality of the proposed doctoral dissertation,
- (c) any professional or practical experience relevant to the scientific field in which they wish to conduct doctoral research,
- (d) experience abroad.

The selection committee can make arrangements to compensate students for disadvantages they might have experienced due to a disability if the student provides a medical report detailing the nature of their disadvantage against other applicants with regard to the criteria (a) through (d) listed above insofar as the admission requirements are not satisfied by the documents listed in Section 3.3. Disability in this case is defined according to Section 2.1 of the German Social Code Book IX. The selection process must also take into account the regulations governing compensation for disadvantages (*Nachteilsausgleich*) when ranking candidates.

In the event of a tie between candidates, the final decision will be made by chance (i.e., by selecting equally qualified candidates at random).

(7) The admitted candidates receive a formal notification of admission with two important deadlines: one for the submission of their written acceptance of the offer to join the program and one for their enrollment. If a candidate fails to observe these deadlines, their place will be given to the next person in the ranked list as described in Section 3.6. Candidates who are not admitted to the program will receive written notification, explaining the reasons for the negative outcome.

(8) In the event that a student's admission to doctoral study in one of the departments is revoked as per the doctoral degree regulations of that department and the provisions stipulated by the Statutes of Academic Affairs (*Satzung für Studienangelegenheiten*, SfS), then their admission to the doctoral studies program is also revoked.

Section 4 Selection Interviews and Criteria

(1) On the basis of the written application materials, the selection committee may invite suitable candidates to participate in selection interviews, especially in order to make decisions about candidates who are equally ranked.

(2) The invitation must be issued and sent to the candidate at least 10 working days before the interview is to take place.

(3) The selection committee is responsible for conducting the interviews.

(4) The interview consists of an academic presentation in English followed by a discussion. The interview should not last more than 60 minutes.

(5) A record is to be kept of each interview detailing the basis on which the applicant was assessed and the interview outcome.

Section 5 Structure of the Doctoral Program, Standard Time to Degree, Language of Instruction

(1) The doctoral studies program has both required and elective components. The curricula of both components consist of elements that are related to the student's doctoral research as well as others that are interdisciplinary in nature (Section 9). There are also cross-cutting elements in the curriculum that focus on knowledge transfer and research communication (Section 10), research management (Section 11), and foreign languages relevant to the field (Section 12).

(2) The standard time to degree for the doctoral studies program is eight semesters. The various components of the program should be completed over the course of six semesters.

(3) English is generally the language of instruction in the doctoral studies program. All program requirements can be completed in English.

Section 6 Organization of the Doctoral Program, Responsibilities

(1) The joint commission appoints a full university professor from one of the departments involved in the program to serve as the official representative of the doctoral studies program. They also appoint at least one alternate. Each appointment lasts for two years.

(2) The representative of the doctoral studies program manages the general business of the program. In particular, they are responsible for the academic coordination of the program. The representative of the doctoral studies program reports to Dahlem Research School's standing committee on the main developments within the doctoral studies program over a given academic year. Dahlem Research School then uses this information to compose its annual performance report.

(3) The representative of the doctoral studies program is also responsible for making sure that each student has a supervisory team with at least three members and that the student is in agreement with the appointment of the members. The supervisory team consists of at least two professors, of which at least one must be a full university professor in one of the participating departments and at least one professor must be specialized in the field of research in which the student is working. Additional members can come from fields outside of the student's doctoral research area and do not have to be employees of Freie Universität Berlin. Under normal circumstances, the student's primary supervisor from their department is a member of the supervisory team. All members of the supervisory team must hold a doctoral degree and be employed as researchers.

(4) The representative of the doctoral studies program is responsible for ensuring that there is at least one ombudsperson available for students to contact in case conflicts arise.

(5) The parameters of the supervision are agreed upon during an initial supervisory meeting between the doctoral supervisor, the supervisory team, and the student and put down in writing in the supervision agreement (Appendix 3).

(6) The student plans their curriculum in the doctoral studies program as outlined in Sections 7 to 12 and based on their research and in coordination with the supervisory team.

Section 7 Workload and Supervision

(1) Students need to earn 30 credit points (CP) consisting of the required and elective components outlined in Section 7.2 and 7.3 below (see also Appendix 1) in order to successfully complete the requirements of the doctoral studies program.

(2) Students must earn a minimum of 12 and a maximum of 18 CP from required components. Required components include:

- (a) An initial supervisory meeting to set the supervision agreement as detailed in Section 6.5,
- (b) annual supervisory meetings as detailed in Section 13.1,
- (c) participation in a research colloquium and/or seminar

Students should gain an in-depth understanding of topics related to their field of research as well as topics in cross-cutting and interdisciplinary areas. Students are required to sign up for at least 1 CP of coursework each semester for 5 semesters.

- (d) presentations of their research on a regular basis

Students should have the opportunity to present and discuss the results of their research at least once a year, preferably in English, in the context of colloquia, seminars, or other scientific/academic events.

- (e) participation in workshops, seminars, etc. on good scientific practice

In this context, students should learn about how to avoid scientific misconduct and to follow the rules of good scientific practice. Students must earn at least 1 CP in the area of good scientific practice through their participation in workshops, seminars, etc. Dahlem Research School provides several opportunities available to students.

- (f) participation in workshops, seminars, etc. on diversity

In this context, student should learn about various aspects of diversity and how to reflect on their thinking and actions in relation to diversity and discrimination. Students must earn at least 1 CP in the area of diversity through their participation in workshops, seminars, etc.

The representative of the doctoral studies program must arrange for students to be able to complete the program requirements (a) to (f) listed above in a different format or within an extended period of time if a student provides a medical report explaining that, due to a disability, they are not able to complete the requirement (wholly or partially) in the prescribed format and/or time frame. Disability in this case is defined according to Section 2.1 of the German Social Code Book IX.

(3) The elective components consist of (a) units that are related to the student's doctoral research as well as others that are interdisciplinary in nature (Section 9), as well as (b) cross-cutting elements that focus on knowledge transfer and research communication (Section 10), research management (Section 11), and foreign languages relevant to the field (Section 12). Students must earn a minimum of 12 and a maximum of 18 CP from the elective components. Students need to earn credits in areas related to their doctoral research as well as in interdisciplinary and cross-cutting areas (as described in Appendix 1) in order to fulfill the elective requirements. Credits for the various program elements can only count once toward fulfilling the requirements outlined in Section 7.1. if they overlap in terms of content with other elements. Students are also free to attend additional courses (without earning credit points).

(4) Students can earn up to 12 CP of the required credits (as outlined in Section 7.1) in the areas of knowledge transfer and research communication (Section 10) and research management (Section 11) with a maximum of 6 CP for each area. Students are also free to attend additional courses (without earning credit points).

(5) The workload for students in the area of foreign language acquisition in languages relevant to their field of research should constitute an appropriate amount of the curriculum. Students can earn up to 6 CP in the area of foreign language acquisition as outlined in Sections 12.1 and 12.2, which count toward the program requirements as outlined in Section 7.1.

(6) Active participation and regular attendance are required of students in the doctoral studies program elements as outlined in Sections 7.1 to 7.3 and in Sections 9 to 12 and in relation to their supervision as agreed upon in Appendix 1.

(7) Students may also take part in academic courses and events offered by other graduate school programs, Research Training Groups through the German Research Foundation (DFG), Max Planck Research Schools, or other research partnerships and associations with other universities or non-university research institutions, as part of the doctoral studies program.

(8) Students can earn CP for coursework or other program elements completed elsewhere that correspond to the curriculum as outlined in Section 7.1 as long as they fulfill the same requirements and are equivalent in terms of workload and quality. In order to earn credits in this case, students must provide documentation of the content and workload of the coursework or program elements to be recognized. The representative of the doctoral studies programs decides whether coursework or other program elements completed elsewhere will be recognized.

Section 8 Conducting Scientific Research and Inclusion in (International) Research Projects

(1) The scientific research conducted by students, as described in Section 2.1, serves to demonstrate that they are capable of conducting independent research.

(2) The content of the doctoral studies program related to the student's research project is usually based on the areas of research of the advisors and instructors in the doctoral studies program. Students are to participate in the research projects of these individuals as part of their doctoral research.

(3) Students may organize travel abroad as part of their scientific research. The duration of their time abroad depends on the progress they are making with their doctorate, and plans must be discussed with their supervisor and, where applicable, with the supervisory team. Students can earn credit points for coursework or other program elements completed abroad as outlined in Section 7.8 to count toward the completion of the doctoral studies program curriculum.

Section 9 Aspects of the Doctoral Studies Program Related to the Student's Doctoral Research and Interdisciplinary Components; Modes of Instruction

The doctoral studies program includes the following modes of instruction as part of the training related to the student's doctoral research and interdisciplinary/cross-cutting components:

(a) Interdisciplinary seminars, lectures, or colloquia

These courses are conducted by one or more professors. The objective is for students to gain interdisciplinary knowledge about new developments and findings in research.

(b) Advanced courses in research related to the student's project

Advanced courses provide students with specialized knowledge that they will need in order to successfully conduct their research.

(c) Presentation seminars or research colloquia

The objective of these courses is for students to learn how to present and discuss their research and that of others in English.

Section 10 Professional Skills in Sub-Area: Knowledge Transfer and Research Communication

Students should regularly present their research findings at conferences and acquire the appropriate communication and presentation skills they need. In addition, they shall be given reasonable opportunity by their supervisory team (as well as their primary supervisor if the supervisor is not a member of the supervisory team) to present their research within the larger context of the field in university courses. They will need to consult with the appropriate people responsible for the course(s) beforehand. The members of the supervisory team will support the student in gaining the appropriate teaching skills they need for university instruction. Dahlem Research School provides several opportunities available to students who wish to improve their communication and presentation skills.

Section 11 Professional Skills in Sub-Area: Research Management

Students will gain experience in planning and implementing research projects and develop general research management skills, especially in organizing and coordinating scientific activities and projects. This includes training in good scientific practice and the promotion of intercultural and diversity skills.

Section 12 Professional Skills in Sub-Area: Foreign Languages for Scientific and Research Contexts

(1) Students whose native language is not English are encouraged to improve their English language skills in the course of their doctoral studies by participating in appropriate courses so that they can adequately communicate in research contexts in English. Courses should help improve both oral and written communication skills.

(2) Students whose native language is not German are encouraged to acquire a knowledge of German in the course of their doctoral studies that will enable them to communicate in at an appropriate level in German. Courses should help improve both oral and written communication skills.

Section 13 Progress Reports, Early Termination, and Completing the Doctoral Studies Program

(1) Students must regularly report to their primary supervisor and the supervisory team on the progress of their doctoral research. Details on the format, deadlines, and length of the reports are agreed upon in the supervision agreement (Section 6.5 and Appendix 3). A supervisory meeting must take place at least once a year between the student and all members of the supervisory team. The meeting should be organized and documented in writing as outlined in Appendix 3.

(2) The supervisory meeting gives all parties involved the opportunity to check whether the student is making adequate progress, both in terms of participation in the doctoral studies program and the status of the dissertation project. It is also an opportunity to assess whether the supervision is being handled responsibly.

The list of qualification requirements in the “Personal Qualification Plan” should be used to determine if the student is fulfilling the various requirements and providing appropriate

documentation thereof. Requirements include the timely completion of research tasks, especially those related to the completion of the dissertation, the timely fulfillment of the requirements in the doctoral studies program as described in Section 7.1 to 7.3 and Sections 9 to 12. paragraph 1 to 3 and §§ 9 to 12, as well as sufficient contact with the supervisory team and supervisor. In the event of a negative outcome of the supervisory meeting, the student and the representative of the doctoral studies program will receive written notification.

(3) Based on the vote of the supervisory team, the representative of the doctoral studies program decides whether the student will continue in the doctoral studies program or, if necessary, initiates steps to dismiss the student from the program.

(4) If all requirements outlined in these regulations have been fulfilled and the doctorate successfully completed (after passing the doctoral defense), a program certificate and transcript of records (see the templates provided in Appendix 4 and 5) will be issued certifying completion of the doctoral studies program. The completion of the doctorate itself is governed by the doctoral degree regulations of the relevant department at Freie Universität Berlin.

(5) The student may withdraw from the doctoral studies program at any time by submitting a statement in writing and signed by the supervisory team and their primary supervisor (if the supervisor is not a member of the supervisory team), briefly stating the reason for withdrawing from the program.

Section 14 Entry into Force, Period of Validity

(1) These regulations enter into force on the day following their publication in *FU-Mitteilungen* (the official bulletin of Freie Universität Berlin).

(2) These regulations become null and void should the doctoral studies program no longer maintain its affiliation with Dahlem Research School. This change comes into effect immediately without the need for a special resolution. Students who were already admitted to the Natural Sciences doctoral studies program prior to the change in the regulations' status are granted leniency through grandfathering. They will be given sixteen semesters from the time of the change in status of the regulations to complete the doctoral studies program on the basis of these regulations.



Overview of the compulsory and elective components as well as the requirements in the study units (curriculum) according to the [Natural Sciences Doctoral Studies Regulations](#)

(1) Compulsory components

Effort: min. 12 CP and max. 18 CP

(a) Initial supervisory meeting with supervision agreement (0.5 CP)

A copy of the supervision agreement with its attachments must be submitted to the representative of the doctoral program within six months of admission to the doctoral program. For the effort, 0.5 CP will be credited to the required number of credit points according to § 7 (1).

(b) Annual supervisory meetings (1.5 CP)

There shall be at least three supervisory meetings documented in writing within the framework of the doctoral studies according to § 13 (1) and (2). For the effort, 0.5 CP per supervisory meeting will be credited to the required number of credit points according to § 7 (1). A copy of the supervision agreement, modified if necessary, with its attachments must be submitted to the representative of the doctoral program within one month after the meeting has taken place.

(c) Scientific colloquium/seminar (min. 5 CP)

Participation in events amounting to at least 1 CP each per semester and for at least 5 semesters is mandatory. Attendance of at least 80% per semester (12 dates/semester, 1 SWS, 1 CP) must be proven.

(d) Presentation of own research work (min. 3 CP)

The doctoral student's own research work must be presented at least once per year and at least three times during the doctoral studies. For the effort 1 CP per presentation will be counted towards the required number of credit points according to § 7 (1). The presentation can take place, for example, in the context of working group seminars, conferences, colloquia, graduate seminars or lectures.

(e) Courses on good scientific practice (min. 1 CP)

Events on good scientific practice are intended to educate doctoral students on how to avoid scientific misconduct and to help ensure that doctoral students follow the rules of good scientific practice. Participation in good scientific practice events totaling at least 1 CP is mandatory. Doctoral students may refer to the courses offered by the Dahlem Research School.

(f) Courses on diversity (min. 1 CP)

Diversity events are designed to educate doctoral students about the various dimensions of diversity and to help doctoral students reflect on their thinking and actions in relation to diversity and discrimination. Participation in diversity events totaling at least 1 CP is mandatory.

(2) Elective components

The compulsory elective components are divided into (a) project-related and overarching scientific study units and (b) interdisciplinary study units. The effort for the compulsory elective components amounts to a total of at least 12 CP and a maximum of 18 CP. Both project-based and overarching scientific study units as well as interdisciplinary study units must be completed in order to receive credit for the required elective components. The study units listed represent examples.

- (a) Project-based and overarching scientific study units, e.g.
 - Subject-related advanced training courses (laboratory workshops, methodological workshops)
 - Subject-related (teaching) events (internship, lecture, seminar)
 - Courses on statistics, programming, good laboratory practice, etc.
 - Courses/events on good scientific practice, research data management
 - Conference participation with own contribution
 - Co-supervision of theses (Bachelor, Master)
 - Teaching activities
 - Collaboration in the application process of a research project

- (b) Interdisciplinary study units, e.g.
 - Key qualifications relevant to science (e.g. scientific writing, disputation training, time management, presentation training)
 - IT courses (e.g. literature management)
 - Event organization (e.g. conference, symposium, colloquium, network, graduate program)
 - Training for teaching, courses in higher education didactics
 - Courses on interdisciplinary (subject) communication, scientific communication
 - Courses on intercultural competence, diversity competence
 - Foreign languages relevant to science
 - Career development (e.g. application training, career events, mentoring program)

Exemplary Study Plan

Components/Study units/Events/Measures	Credit points (CP)	1 st Semester	2 nd Semester	3 rd Semester	4 th Semester	5 th Semester	6 th Semester
Compulsory components	12 – 18 (here as an example: 13)						
Initial supervisory meeting with supervision agreement	0.5	P (0.5)					
Supervisory meeting	1.5		P (0.5)		P (0.5)		P (0.5)
Attendance of scientific colloquium/seminar	6	P (1)	P (1)	P (1)	P (1)	P (1)	W (1)
Presentation of own research work	3		P (1)		P (1)		P (1)
Attendance of course(s) on good scientific practice	1	P (1)					
Attendance of course(s) on diversity	1			P (1)			
Elective components	12 – 18 (here as an example: 17)						
Project-related and overarching scientific study units	approx. 6 – 9 (here as an example: 8)						
e.g. Participation in a laboratory workshop	1	W (1)					
e.g. (Co-)Teaching activity	2			W (2)			
e.g. Participation in a lecture series	2				W (2)		

Components/Study units/Events/Measures	Credit points (CP)	1 st Semester	2 nd Semester	3 rd Semester	4 th Semester	5 th Semester	6 th Semester
e.g. Collaboration in the application process of a research project	2					W (2)	
e.g. Conference participation with own contribution	1					W (1)	
Interdisciplinary study units	approx. 6 – 9 (here as an example: 9)						
e.g. Participation in a language course: German as a foreign language	4	W (2)	W (2)				
e.g. Participation in a workshop on presentation techniques	1			W (1)			
e.g. Organization of a research colloquium	1				W (1)		
e.g. Participation in a mentoring program for female scientists	2					W (1)	W (1)
e.g. Attendance of an application training	1						W (1)
e.g. Participation in a language course: scientific English	-			F (2)	F (2)		
Credit points for the scientific doctoral studies	30	5.5	4.5	5	5.5	5	4.5

Explanations to the table: P = compulsory, W = elective, F = voluntary (does not count towards the required CP), CP in brackets

The standard study time of the doctoral program is eight semesters according to § 5 (2), whereby the fulfillment of the scientific study program should extend over six semesters.