

Requirement to give notice of deficiencies:

Under § 12, para. 5 of the Higher Education Act of North Rhine-Westphalia (Hochschulgesetz NRW, HG NRW), violations of the procedural or formal requirements of the Higher Education Act or regulatory or other legal provisions of the University of Bonn may no longer be asserted against regulations if one year has passed since their announcement, unless

1. The regulations were not properly announced
2. The Rectorate previously objected to the resolution by the body adopting the regulations, or
3. The University was previously notified of the formal or procedural deficiency, indicating the legal provision that was violated and the facts leading to the deficiency.

**Doctoral Degree Regulations
of the Faculty of Mathematics and Natural Sciences
of the University of Bonn**

dated February 17, 2022

By virtue of § 2, para. 4 and § 28, para. 1 of the NRW Higher Education Act (Gesetz über die Hochschulen des Landes Nordrhein-Westfalen, Hochschulgesetz) of September 16, 2014 (Legal and Regulatory Gazette of North Rhine-Westphalia, p. 547) as last amended by Article 1 of the Act on Digital Progress in the Area of Higher Education in Light of the Experience Gained from the Coronavirus Pandemic and on University Operations in the Case of an Epidemic or Disaster (Gesetzes zum digitalen Fortschritt im Hochschulbereich angesichts der Erfahrungen aus der Corona-Pandemie sowie zum Hochschulbetrieb im Falle einer Epidemie oder einer Katastrophe) of November 3, 2021 (Legal and Regulatory Gazette of North Rhine-Westphalia, p.

1180), the Faculty of Mathematics and Natural Sciences of the University of Bonn issued the following Doctoral Degree Regulations:

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Part 1

§ 1 Scope

(1) These Doctoral Degree Regulations apply to all doctoral examination procedures (§§ 10 et seqq.) for doctoral students in the Faculty of Mathematics and Natural Sciences who are admitted to the doctoral examination procedure after these Regulations enter into force.

(2) Doctoral students in the Faculty of Mathematics and Natural Sciences who were already admitted to the doctoral examination procedure before these Regulations entered into force shall complete their doctoral examination procedures in accordance with the doctoral degree regulations of the Faculty of Mathematics and Natural Sciences of June 3, 2011 (Official Announcements of the University of Bonn, 41st year, No. 14, June 17, 2011). Notwithstanding sentence 1, § 18 of these Doctoral Examination Regulations shall apply to doctoral examination procedures that were already initiated before these Regulations entered into force.

Part 2

I. General information

§ 2 Doctorate

(1) The doctorate serves to demonstrate an ability to undertake independent academic work beyond the general study goal of professional qualification, as shown by a significant increase in academic knowledge in a doctoral thesis. Following a successful doctorate, the Faculty of Mathematics and Natural Sciences at the University of Bonn awards the degree of Doctor of Natural Sciences (Doctor rerum naturalium, abbreviated: Dr. rer. nat.).

(2) The evidence of this ability is to be provided by the doctoral student by means of

1. An academically noteworthy written paper (doctoral thesis)
2. An academic lecture with discussion (doctoral colloquium) on the results of the doctoral thesis, and
3. An oral examination (doctoral defense) in the discipline of the doctorate.

(3) The Faculty of Mathematics and Natural Sciences may award, as an honorary doctorate, the academic degree of Honorary Doctor of Natural Sciences (Doctor rerum naturalium honoris causa, abbreviated: Dr. rer. nat. h. c.) in recognition of extraordinary academic and intellectual achievements in the natural sciences.

§ 3 Doctoral board

(1) The doctoral board manages the doctoral examination procedures. In particular, it:

1. Maintains the doctoral files
2. Checks the quality of degrees and decides on admission to doctoral studies and the doctoral examination procedure after examining all admission requirements
3. Appoints the doctoral committees, their chairpersons and the reviewers and ensures that the members of the doctoral committees have the proper academic qualifications
4. Issues the certificate
5. Decides on requests for exceptions

6. Decides on complaints and objections
7. Decides on the invalidity of doctoral achievements and revocation of the doctoral degree.

(2) The doctoral board has the following members:

1. The dean as chairperson
2. The vice dean for research and early-career researchers as deputy chairperson, and
3. The members of the faculty council.

(3) All of the members of the doctoral board have the right to vote. The conflict of interest rules in Annex 4 must be observed. Members without doctorates are not involved in any decisions relating to academic education, in particular the recognition and assessment of study and examination achievements and the appointment of doctoral committees.

(4) The chairperson conducts the business of the doctoral board in the dean's office and prepares its meetings. The doctoral board may delegate clearly defined tasks, in particular the tasks specified in paragraph 1 no. 1 to 4, to the chairperson. Delegation of the tasks specified in paragraph 1 no. 6 to 7 is not permitted.

(5) Doctoral board meetings are not open to the public. The members of the doctoral board, their deputies and members of the doctoral committees shall be bound to confidentiality. This duty of confidentiality also applies after the end of the term of office.

(6) To perform the tasks specified in § 3, para. 1, the doctoral board may request a preliminary examination at any time by the department to which the doctoral discipline is assigned, or consult a representative of the doctoral discipline to which a procedure relates.

§ 4

Doctoral committee

(1) The doctoral board shall appoint a doctoral committee for every doctoral examination procedure. The members of the doctoral committee are responsible for the following according to their respective roles:

- Reviewing and assessing the doctoral thesis in accordance with § 12
- Conducting the doctoral colloquium, and
- Conducting the doctoral defense

The chairperson of the doctoral committee appointed in accordance with § 4, para. 2 convenes and chairs the meetings and reports to the doctoral board. The doctoral committee prepares minutes for each meeting.

(2) The doctoral committee has the following members:

1. A chairperson who is neither a supervisor, second supervisor or reviewer, and is a full-time professor in the Faculty of Mathematics and Natural Sciences. He or she must represent the doctoral discipline, but should belong to another academic sub-field of the doctoral discipline. The doctoral board decides on exceptions.
2. The reviewers of the doctoral thesis in accordance with § 5
3. Another member of the University, who must belong to a different department or different faculty than the supervisors and represent a different doctoral discipline

(3) Only the following may be considered as members of the doctoral committee:

1. Full-time professors and assistant professors at the University
2. Adjunct professors at the University
3. Honorary professors at the University
4. Senior professors at the University
5. Researchers with qualifications equivalent to Habilitation. The doctoral board determines whether the requirements are satisfied. It can also obtain external reviews for this purpose.

All members of the doctoral committee must be sufficiently qualified with respect to the achievements to be assessed.

(4) Once the standard retirement age plus three years has been reached, members of the University indicated in § 4, para. 3 may only be members of the doctoral committee in exceptional cases upon request and proof of teaching or research activities must be provided.

(5) The doctoral board can appoint deputy members to the doctoral committee at short notice if members are unable to attend the oral examinations at short notice (e.g. due to illness).

(6) The doctoral student can propose candidates for the committee when submitting the application to open the doctoral examination procedure in accordance with § 8. The doctoral board is not bound by the proposal.

§ 5 Reviewers

(1) The doctoral board appoints at least two reviewers from the group of persons specified in § 4, para. 3 to review the doctoral thesis.

(2) The supervisor specified in § 7, para. 7 is to be appointed as a reviewer of the doctoral thesis. The second supervisor specified in § 7, para. 8 can be appointed as a reviewer of the doctoral thesis.

(3) At least one reviewer must be a full-time member of the Faculty of Mathematics and Natural Sciences.

(4) In justified cases, the doctoral committee can engage one or more additional reviewers to provide reviews. Contrary to § 4, para. 2, no. 2, any additional reviewers that are engaged are not members of the doctoral committee. Further details are governed by § 12.

§ 6 Doctoral disciplines

(1) The Faculty of Mathematics and Natural Sciences maintains a list of doctoral disciplines currently supported by the departments (see Annex 1).

(2) The assignment of individual members of the faculty to a doctoral discipline is the responsibility of the departments assigned to the doctoral discipline.

(3) A department can request temporary approval from the faculty for adding or removing doctoral disciplines. The faculty council decides on the requests.

(4) An additional doctoral discipline is initially approved for 5 years. Approval from the faculty council is required to make the doctoral discipline permanent. If a request to make it permanent is not approved,

doctoral projects that are already in progress for this doctoral discipline can still be completed in this discipline within a period of five years.

II. Doctoral studies

§ 7

Doctoral studies and the supervision agreement

- (1) Doctoral studies begin upon admission in accordance with § 8. They include the doctoral dissertation project and preparation of the doctoral thesis.
- (2) Modular doctoral programs can be established in the faculty. They are approved by the faculty council.
- (3) If a modular doctoral program requires courses to be taken during the doctorate or proof of skills and expertise, proof of these qualifications must be provided when applying for the doctoral examination procedure to be opened (see § 10).
- (4) For doctoral students that are members of a graduate school listed in Annex 2, the regulations of that graduate school apply to the complementary studies provided for there. However, the award of the doctoral degree by the Faculty of Mathematics and Natural Sciences is only subject to these Doctoral Degree Regulations.
- (5) Individuals admitted to doctoral studies as doctoral students shall be enrolled in accordance with § 5 of the Enrollment Regulations of the University of Bonn.
- (6) The doctoral dissertation project and preparation of the doctoral thesis must be performed in contact with an appropriately qualified supervisor. The supervision relationship is established by concluding a written supervision agreement.
- (7) The supervisor must come from the group of people indicated in § 4, para. 3 and must represent the discipline of the doctorate. The supervisor is generally a member of the Faculty of Mathematics and Natural Sciences. A supervisor may also work at one of the research institutions listed in Annex 3 or at an institution that satisfies the criteria listed in Annex 3. In this case, the doctoral board decides on whether to approve the external supervisor.
- (8) In the following cases, another supervision agreement must be concluded with a second supervisor who is a full-time member of the Faculty of Mathematics and Natural Sciences, comes from the group of people indicated in § 4, para. 3 and represents the same doctoral discipline:
 - The supervisor is not a full-time member of the Faculty of Mathematics and Natural Sciences
 - The supervisor is an interim professor
- (9) Notwithstanding § 4, para. 3, faculty members who have reached the standard retirement age may not enter into any new supervision agreements. The doctoral board decides on exceptions.
- (10) Existing supervision agreements can be continued for up to three years after the supervisor leaves the active full-time position he or she held when the supervision agreement was concluded. The doctoral board decides on exceptions.

(11) If the prospects for successful completion of the planned doctoral dissertation project are to be clarified by preliminary work or the admission requirements cannot be clarified at short notice, a provisional supervision relationship can be established for a period of up to six months and can either be terminated at the end of this period or converted into a final supervision agreement. The beginning of the provisional supervision relationship can be specified by a written agreement between the supervisor and doctoral student.

(12) The doctoral board must be notified in writing without delay of changes to the supervision agreement, in particular termination of the supervision agreement. The supervisor or second supervisor can only be changed with the approval of the doctoral board after admission to doctoral studies. The doctoral board may only refuse approval for good cause.

(13) The doctoral student should work on the doctoral dissertation project in close consultation with the supervisor. The doctoral student is required to regularly and fully report to his or her supervisor regarding the status of the paper. The supervisor is required to receive regular full reporting on the status of the paper.

(14) The supervision agreement shall terminate if an application for admission to the doctoral examination procedure has not been submitted five years after admission to doctoral studies. The supervision agreement can be extended for two years if a valid request is submitted to the doctoral board. A repeat extension is possible.

(15) The supervision agreement can be terminated by either party by providing six weeks' notice and the reasons for the termination, or can be terminated at any time by mutual agreement. Termination must be documented by a written declaration of termination, and the doctoral board is to be notified without delay by sending a copy.

(16) The dean may be asked to mediate before the supervision agreement is terminated.

(17) The supervisor can terminate the supervision agreement without notice in the following cases:

- Repeated disregard of the supervisor's instructions
- Conduct by the doctoral student that permanently disrupts the relationship of trust
- Serious violations of safety regulations or terms and conditions of use
- Conduct that would justify termination without notice if a regular employment relationship existed.

(18) If termination of the supervision agreement occurs or is necessary for reasons for which the doctoral student is not responsible, the doctoral board shall do everything possible to find another supervisor. In the event of termination of the supervision agreement for which the doctoral student is responsible, the doctoral board can give the doctoral student the opportunity to look for a new supervisor within a reasonable period of time to be determined by the doctoral board.

(19) If the doctoral student uses University facilities or funding or third-party funding in addition to the University facilities and funding available to all students, the supervisor must be allowed to use the results and other documents of the doctoral thesis or the results of the doctoral dissertation project up to the point of a possible termination of the supervision agreement free of charge for academic and research purposes, provided this does not negatively affect the doctoral student's goal of earning a doctorate. The publication requirement in § 17 remains unaffected.

§ 8
Admission

- (1) The following are eligible for admission to doctoral studies and the doctoral examination procedure:
 1. Individuals with a degree following a relevant university program with a standard period of study of at least eight semesters for which a degree other than “bachelor” is awarded, or
 2. Individuals who have completed a degree program in medicine, dentistry or pharmacy, or
 3. Individuals who have completed their studies in food chemistry with the first state examination, or
 4. Individuals with a degree following a relevant university program with a standard period of study of at least six semesters, followed by suitable pre-doctoral studies in accordance with § 8, para. 3 in the discipline of the doctorate, or
 5. Individuals with a master’s degree satisfying § 61, para. 2, sentence 2 HG NRW, during which the candidate clearly demonstrated his or her suitability for a more advanced degree, who can be expected to perform independent research with the goal of producing an academically noteworthy doctoral thesis in the discipline of the doctorate.

- (2) If the requirements for the discipline are not sufficiently satisfied, additional complementary studies for up to a maximum of 60 credit points may be required during doctoral studies to prepare for the doctoral dissertation project. The doctoral board shall specify the nature and scope of the study achievements required and the proof to be provided.

- (3) If the previous studies fall under § 8, para. 1, no. 4, proof of above-average achievement must be provided for these studies. Alternatively, proof of above-average achievement can also be provided in the form of academic achievements, e.g. publications, after the studies were concluded; the doctoral board makes these decisions. Additional complementary studies for up to a maximum of 60 credit points are also required during the doctoral studies as preparation for the doctoral dissertation project and proof of suitability as specified in § 8, para. 1. The doctoral board shall specify the nature and scope of the study achievements required and the proof to be provided. In cases where the previous studies were completed without a final paper, an academic paper requiring around 900 hours of work corresponding to 30 credit points must be prepared. This academic paper must be prepared within a maximum of six months.

- (4) In addition to the requirements in § 7, para. 1, admission to doctoral studies and the doctoral examination procedure also requires a written supervision agreement or agreements concluded between the doctoral student and the supervisor and, if applicable, second supervisor at the beginning of the doctoral dissertation project in accordance with § 7, para. 6 and 8.

- (5) Recognition of foreign degree programs required for admission to doctoral studies under § 8, para. 1 will be granted by the doctoral board upon request after checking whether the degree in question
 - Was completed at a state or state-accredited university and there is no significant difference between the knowledge gained during the degree and degrees obtained at German universities
 - Satisfies a general requirement for admission to doctoral studies based on assessments by the Central Office for Foreign Education (ZAB) at the Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder or the German Rectors’ Conference
 - Satisfies the requirements for admission to doctoral studies based on agreements between the University of Bonn and partner universities outside Germany.

- (6) For admission to doctoral studies, students must have the German or English language skills that are required for the doctoral studies. Students who are not exempt under the examination regulations for the “German Language Proficiency Test for Admission to Higher Education (DSH)” of the University of Bonn from

the requirement in paragraph 1 of those examination regulations to provide proof of language proficiency, admission to doctoral studies requires passing the DSH at the DSH 2 level or passing an equivalent examination in accordance with those examination regulations. Students who are exempt from the requirement to provide proof of language proficiency include, among others, those who obtained their university entrance qualifications at a German-language school in Germany or abroad, or doctoral students with foreign higher education degrees, if the doctoral board certifies that the doctoral thesis will be written in English and the doctoral colloquium and doctoral defense will be held in English. Certification requires a detailed statement by the supervisor that the student is sufficiently proficient in English.

(7) The application for admission to doctoral studies should be submitted when the student begins working on a doctoral dissertation project. It is not the same as the application for admission to the doctoral examination procedure in accordance with § 10, para. 1 and must be submitted no later than six months before that application. The doctoral board decides on exceptions based on a joint written request by the supervisor and doctoral student providing detailed reasons.

(8) The application for admission to doctoral studies must include, among other things, the data required under § 5 of the University Statistics Act (Hochschulstatistikgesetz, HStatG). Further details and appropriate application forms will be provided by the dean's office.

(9) The doctoral board will provide notification of the admission or denial of admission to doctoral studies, including an advisory of legal recourse.

§ 9

Doctoral thesis

(1) The doctoral thesis must satisfy academic standards and demonstrate the doctoral student's ability to undertake independent academic work and present the results in an appropriate manner. It must make a new, independent contribution that advances academic knowledge. The subject of the doctoral thesis must belong to the discipline of the doctorate.

(2) The doctoral thesis can be written in German or English.

(3) In addition to the text itself, the doctoral thesis must include the following parts:

1. A title page satisfying the requirements of the dean's office
2. A summary in German or English
3. A complete list of the literature and other sources used
4. Information on the assistance received and resources used.

(4) One or more publications that are in print or have already appeared in international peer-reviewed periodicals may be used for individual sections of the doctoral thesis, provided the doctoral student's own contributions to each publication are clearly identified. A summary of the publication clearly indicating the doctoral student's own contributions (at least 4,000 characters) must be prepared and included in the doctoral thesis for this purpose. If a publication is included as a section of a doctoral thesis, the doctoral student and supervisor must confirm that all co-authors are in agreement with the publication being used for the doctoral thesis and with the parts identified as the doctoral student's own contribution. The publication itself is to be included as an annex to the doctoral thesis. The publication is to be listed at the beginning of the section with bibliographic information and all authors. The literature citations used in the associated summary must also appear in the complete list of literature citations.

(5) Several publications with related contents can be combined into a cumulative doctoral thesis based solely on publications. The cumulative doctoral thesis as a whole must represent an achievement that is equivalent to a doctoral thesis as specified in § 9, para. 1; the rules set down in § 9, para. 4 for the use of publications in a doctoral thesis must be observed. The following must be included in a cumulative doctoral thesis:

- A sufficiently detailed introduction (at least 30,000 characters) that provides an overview of the publications included in the doctoral thesis and makes it possible to put them into context with one another and the topic of the doctoral thesis, and
- A summary (at least 10,000 characters) that covers the research results achieved and the advance in knowledge gained due to the research question.

(6) Own papers that have already been used for examination purposes may not be used as part of a doctoral thesis. Results from such papers can, however, be used for the doctoral thesis; the papers in question must be identified as such in the references section.

(7) An electronic version of the doctoral thesis and multiple printed and bound copies in accordance with § 10, para. 3, no. 4a to c are to be submitted. The text and typographical design of the title page and other requirements are specified by the doctoral board.

III. Doctoral examination procedure

§ 10

Opening of the doctoral examination procedure

(1) The application for admission to the doctoral examination procedure is to be submitted to the doctoral board in writing. It can only be submitted after admission to doctoral studies in accordance with § 8, para. 9.

(2) The application must contain:

1. Name and address of the applicant
2. Topic of the doctoral thesis
3. The discipline of the doctorate
4. Names of the supervisors.

(3) The following are to be included with the application:

1. Certificate of good conduct, document type O, which may not be more than eight weeks old on the date of submission
2. If applicable, proof of predoctoral studies and other study achievements to be earned in accordance with § 8, para. 2 or 3
3. If applicable, proof of the qualifications to be acquired during modularized doctoral studies as specified in § 7, para. 3
4. Two printed examination copies for the dean's office and one for each member of the doctoral committee, and one electronic copy of the doctoral thesis with
 - a. An abstract of the doctoral thesis (max. 3000 characters)
 - b. A brief curriculum vitae including educational background, and
 - c. If applicable, a list of publications
5. An affirmation in lieu of an oath by the applicant concerning resources, external help, sources, previous doctorates and doctoral attempts and publication of parts of the doctoral thesis

6. Proposals for the doctoral thesis reviewers in accordance with § 5, including a request in accordance with § 4, para. 3, no. 6, if necessary
7. If applicable, proposals for the chairperson and other members of the doctoral committee in accordance with § 4, para. 6, including a request in accordance with § 4, para. 3, no. 6, if necessary
8. A statement as to whether consent has been given for listeners to attend the doctoral defense in accordance with § 13, para. 6.

A current list of the information and proof required for the application and the corresponding forms will be provided by the dean's office.

- (4) The application can only be withdrawn as long as no reviews have been submitted.

§ 11

Initiation of the doctoral examination procedure

(1) The doctoral board checks that the requirements for admission are satisfied, checks for complete and proper submission of all documents for the application for admission to the doctoral examination procedure and requests missing documents, setting a suitable deadline for their submission. If the doctoral student cannot include all of the documents with the application, or cannot include them in the requested form, the doctoral board may also permit the proof in question to be provided in another form.

(2) If the doctoral board does not agree with the proposed composition of the doctoral committee, the doctoral student is asked to provide a new proposal.

(3) The doctoral board can decide to reject the application if

- The documents are still incomplete after the deadline that was set has passed
- A criminal conviction exists that casts doubt on the independence and objectivity needed for research activities
- There is proof of falsification or plagiarism in an academic paper by the doctoral student

The doctoral board must decide to reject the application if

- The doctoral student has submitted the thesis or a similar paper as a doctoral thesis elsewhere
- The doctoral student has already failed twice in a doctoral examination procedure at a German university due to rejection of a doctoral thesis or failed examinations.

(4) The doctoral student is to be notified of the rejection in writing, including the reasons for the rejection and an advisory of legal recourse.

(5) If all the requirements for admission are satisfied, the application is accepted. The doctoral board then appoints the doctoral committee. The doctoral student is informed of this, including the names of the committee members.

§ 12

Review and assessment of the doctoral thesis

(1) The doctoral board sends the doctoral thesis, including the abstract of the doctoral thesis, curriculum vitae and a list of publications, if applicable, to the committee members and appoints reviewers to prepare the reviews.

(2) The reviews of the doctoral thesis must be prepared independently from one another in writing, must discuss the significance of the increase in knowledge due to the doctoral thesis as specified in § 2, para. 1, sentence 1, and must include a justified recommendation for

- Acceptance
- Rejection, or
- Return of the doctoral thesis for revision.

The recommendation to accept the doctoral thesis may require editing changes to the doctoral thesis before the certificate and diploma are issued. Upon a recommendation to accept, a justified grade suggestion in accordance with the grading scale in § 16 must be made. The reviews should be submitted at the latest four

weeks after the request for review by the doctoral board. If a reviewer is not able to prepare a review in less than three months, the doctoral board shall appoint another reviewer.

(3) After all the reviews have been received, they are sent to the non-reviewing members of the committee, who confirm, based on the doctoral thesis and submitted reviews, by written vote within one week the recommendations made in the reviews to accept, reject or return the doctoral thesis for revision, or raise objections. The rights of the voting committee members in § 12, para. 10 remain unaffected. The reviewers receive the other reviews for their information.

(4) If the reviewers recommend that the doctoral thesis be accepted and provide proposed grades that differ from one another by no more than 1.0, and the votes of all the other members of the committee confirm this acceptance, the procedure continues in accordance with paragraph 9 unless the doctoral thesis has been graded "excellent" by all the reviewers.

(5) The grade "excellent" may only be awarded to doctoral theses in very well justified exceptional cases. If the doctoral thesis is graded "excellent" by all reviewers, the doctoral board appoints another professionally qualified reviewer from outside the University to provide another review. The supervisor can make three proposals for this reviewer; the doctoral board chooses the reviewer. The conflict of interest criteria in Annex 4 must be observed. The deadline for preparing this review is four weeks.

(6) If all reviewers recommend that the doctoral thesis be rejected and no voting member of the committee submits an opposing vote, the doctoral board issues a rejection notice to the doctoral student. It must include an advisory of legal recourse.

(7) If at least one reviewer recommends that the doctoral thesis be returned for revision and no voting member of the committee opposes this recommendation, the committee sets a suitable deadline for the doctoral thesis to be resubmitted and the procedure continues in accordance with § 12, para. 1. The doctoral board notifies the doctoral student to revise the doctoral thesis by the deadline that was set. In this case, one copy of each of the two versions of the doctoral thesis remain in the doctoral file.

(8) In all other cases, the chairperson of the doctoral committee convenes the committee. The committee initially provides advice as an mediator. It can propose to the doctoral board that another review be obtained. The procedure followed is analogous to the one described in § 12, para. 5. The committee then reaches a decision based on all the reviews.

(9) If the committee decides to accept the doctoral thesis, the doctoral board makes the doctoral thesis with abstract, curriculum vitae and all the reviews and votes available for comments to the members of the faculty who fall under § 4, para. 3 (display). They are notified of the display together with

1. The name of the doctoral student
2. The title of the doctoral thesis
3. The discipline of the doctorate
4. The abstract of the doctoral thesis
5. Where any publications have been published
6. The names of the reviewers and other committee members, and
7. The grade proposed by the committee for the doctoral thesis

The display period begins on the date of notification and lasts for 12 working days.

(10) Members of the faculty that fall under § 4, para. 3 can submit justified written objections to the committee decision to the doctoral board during the display period. The justified objection can include a

rejection of the doctoral thesis, return of the doctoral thesis for revision, a different grade or editing requirements. The doctoral board considers the objection and decides to continue the procedure in accordance with § 12, para. 6, 7 or 13.

(11) If no objection is raised or the doctoral board, taking all objections into account, confirms acceptance of the doctoral thesis, possibly with a grade change by the reviewers, this decision is final. It includes admission to the oral examinations.

(12) One of the copies of the doctoral thesis that was submitted is included in the doctoral file.

(13) If editing of the doctoral thesis was required during the procedure, the doctoral student shall submit an appropriately improved version and a synopsis of all the changes to the doctoral committee for approval. The improved version is signed as approved by the supervisor and the synopsis is signed as approved by the chairperson of the doctoral committee. Both are included in the doctoral file.

(14) A rejected doctoral thesis remains in the faculty together with all reviews. It may not be submitted again to another faculty for a doctorate without disclosing the rejection.

(15) A doctoral student whose doctoral thesis has been rejected may apply for admission to the doctoral examination procedure again after a period of one year at the earliest.

§ 13 Oral examinations

(1) The oral examinations are comprised of a public, academic lecture with a discussion (doctoral colloquium) and, following this, a non-public oral examination (doctoral defense). Both take place before the doctoral committee.

(2) In the doctoral colloquium, the doctoral student reports on the results of his doctoral thesis in a 30-minute academic lecture. An academic discussion of 15 minutes with questions from the committee and listeners takes place at the end.

(3) In the doctoral defense, the ability of the doctoral student to present the subjects of his doctoral thesis and their categorization within the discipline of the doctorate or a related discipline is verified in a specialist discussion. The doctoral defense should last a minimum of 30 minutes and a maximum of 90 minutes.

(4) The doctoral colloquium and the doctoral defense can be conducted in German or English.

(5) The doctoral board sets the date and location of the oral examinations (doctoral colloquium and doctoral defense) at the suggestion of the doctoral committee. The doctoral student is responsible for scheduling the date in consultation with the members of the doctoral committee. The doctoral board asks the doctoral student to schedule the date when the display period specified in § 12, para. 9 begins. The date for the oral examinations should be at least 18 working days but no more than three months after the beginning of the display period. If a date has been scheduled, the doctoral student shall inform the doctoral board of the date without delay and no later than two weeks before the date. The doctoral colloquium is to be announced faculty-wide with the name of the doctoral student, the lecture title, and the time and location. The announcement period is six working days.

(6) Doctoral students in the same doctoral discipline can be admitted as listeners to the doctoral defense, provided there are sufficient seats free and the doctoral student has agreed. Admission does not extend to the consultation for and announcement of the examination result to the doctoral student.

§ 14

Assessment of the oral examinations

(1) After the doctoral defense following the doctoral colloquium, the doctoral committee decides in camera whether the ungraded doctoral colloquium has been passed or failed and what grade to award for the doctoral defense based on the grading scale in § 16.

(2) If a doctoral student fails to appear at the doctoral colloquium or doctoral defense without good cause or withdraws after they have started without good cause, the doctoral colloquium or doctoral defense is deemed failed. If good cause is claimed for the failure to appear or withdrawal, this is to be reported and demonstrated immediately in writing to the doctoral board via the chairperson of the doctoral committee. Oral reports must be confirmed in writing without delay. In the event that the doctoral student is ill, the submission of a doctor's letter can be requested. If the reasons are accepted, the doctoral board sets a new date at the suggestion of the doctoral committee. The doctoral student is responsible for scheduling the date in consultation with the members of the doctoral committee.

§ 15

Repetition of oral examinations

(1) If the doctoral colloquium or doctoral defense is failed, the doctoral board sets a new date for the doctoral colloquium or doctoral defense at the suggestion of the committee.

(2) A repeat examination can take place at the earliest three months and at the latest twelve months after the date of the failed examination.

(3) As a rule, the same committee remains responsible for repetition of the oral examinations. The doctoral committee can appoint additional committee members upon justified request by the doctoral student. The committee, however, may not have more than seven members.

(4) A second repeat of the oral examinations is not permitted. If the repetition of the colloquium or doctoral defense is also failed, the doctoral examination procedure is considered definitively failed.

§ 16

Grading

(1) The following grades are permitted for the doctoral thesis and doctoral defense:

- excellent (0.0)
- very good (1.0)
- good (2.0)
- satisfactory (3.0)

and, for the doctoral defense, the grade of

- fail

A grade can be increased or decreased by 0.3. The grade “excellent” cannot be increased or decreased. The grade “satisfactory” cannot be decreased.

(2) The grade for the doctoral thesis is the arithmetic average of the grades for all the reviews as follows:

- Excellent for a value of 0.0
- Very good for a value greater than 0.0 up to and including 1.5
- Good for a value greater than 1.5 up to and including 2.5
- Satisfactory for a value greater than 2.5 up to and including 3.0

(3) The overall grade for the doctorate is the arithmetic average of the double-weighted grade for the doctoral thesis (arithmetic average of the grades for all reviews) and the single-weighted grade for the doctoral defense as follows:

- Summa cum laude for a value of 0.0
- Magna cum laude for a value greater than 0.0 up to and including 1.5
- Cum laude for a value greater than 1.5 up to and including 2.5
- Rite for a value greater than 2.5 up to and including 3.0

§ 17

Publication of the doctoral thesis

(1) The doctoral thesis must be made accessible to the academic public in an appropriate manner in the form accepted by the doctoral committee. To this end, dissemination in one of the following ways must be ensured in accordance with the requirements of the Bonn University and State Library (USL):

1. Publication in electronic form via the Bonn University and State Library (USL). For this purpose, the electronic version, including the right to publish it on data networks for an unlimited period of time and make it accessible to other databases, and two printed copies of the doctoral thesis are to be provided to the Bonn University and State Library (USL). The doctoral student must check the metadata and the electronic version of the doctoral thesis for completeness, accuracy and legibility after processing by the University library. Submitting incomplete files or files that do not satisfy the file format and data carrier requirements is not considered publication.
2. Printed in a publication series or single book in the publishing trade, provided that proof of a minimum print run of 100 copies is provided. In this case, five obligatory copies are to be provided to the Bonn University and State Library (USL). A smaller minimum print run is acceptable if the publisher fills further orders using a print-on-demand process. The doctoral student is responsible for providing proof of this.

Publications that have been accepted for publication and are included as an annex in accordance with § 9, para. 4, sentence 4 and publications that are in print or have appeared in electronic journals are exempt from the publication requirement.

(2) If the corresponding doctoral discipline has its own library, an additional copy is to be provided to the institute library concerned or the department library.

(3) The certificate issued by the Bonn University and State Library (USL) in accordance with § 18, para. 4, no. 2 is to be submitted to the doctoral board within one year of the date on which the oral examinations were passed. If an doctoral student misses this deadline through their own fault, all the rights acquired by taking the examination shall lapse. In special cases, the doctoral board can extend the period upon timely submission of a justified request by the doctoral student and supervisor.

(4) In justified exceptional cases, the doctoral board can grant a blocking period of up to one year for the electronic version of the doctoral thesis upon request by the doctoral student and supervisor. The doctoral board can approve an extension of this period in special exceptional cases if another request is made.

§ 18

Certificate and diploma

(1) If all of the doctoral achievements have been completed and all grades have been assigned, the doctoral board will issue a certificate and the dean will issue a doctoral diploma. The text and typographical design of the certificate and doctoral diploma are specified by the doctoral board. Assessment of the doctoral achievements takes place within a period of six months after submission of the doctoral thesis.

(2) The graduation date is the date the oral examination is passed.

(3) The certificate is provided to the student after it is issued. The doctorate is awarded when the dean presents the diploma that he or she has issued to the doctoral student.

(4) The following requirements must be fulfilled for presentation of the doctoral diploma:

1. A declaration by the doctoral student stating that all the important results of the doctoral thesis are included in the version of the doctoral thesis published in accordance with § 17, para. 1 and 2, and the published version is the same as the version that was submitted or, if the doctoral thesis was revised, the version signed as approved by the reviewer
2. A certificate from the Bonn University and State Library confirming that the doctoral thesis has been provided to the Bonn University and State Library using one of the options specified in § 17, para. 1, no. 1 and 2
3. A declaration of discharge confirming no claims outstanding against the student submitted using the appropriate template from the dean's office
4. If applicable, a certificate from the institute or department library confirming that an additional copy of the doctoral thesis was provided in accordance with § 17, para. 2

(5) The certificate includes the following information:

- The name of the doctoral student, with date and place of birth
- The title of the doctoral thesis
- The discipline of the doctorate
- The names of the members of the doctoral committee
- The grade for the doctoral thesis and its numerical value to precisely two decimal places, with all other digits deleted
- The grade for the doctoral defense and its numerical value to precisely one decimal place
- The dates the colloquium and doctoral defense were passed
- The overall grade for the doctorate in accordance with § 16, para. 3 and its numerical value to precisely two decimal places, with all other digits deleted
- The dean's signature next to the date of issue
- The faculty seal

An advisory of legal recourse must be included with the certificate.

Upon justified request by the doctoral student and approval by the doctoral board, the certificate may also indicate a recognized area of specialization in the discipline of the doctorate. The certificate does not convey the right to use the title of "Doctor."

(6) The diploma includes the following information:

- The Faculty of Mathematics and Natural Sciences of the University of Bonn as the faculty awarding the degree
- The title Doctor of Natural Sciences (Doctor rerum naturalium, abbreviation: Dr. rer. nat.) as the degree awarded
- The name of the doctoral student, with date and place of birth
- The title of the doctoral thesis
- The dates the colloquium and doctoral defense were passed
- The dean's signature next to the date of issue
- The faculty seal.

§ 19

Declaration of invalidity of doctoral achievement and revocation of the doctoral degree

(1) If it becomes known during the doctoral examination procedure that the doctoral student is guilty of deception, the assessment of the doctoral achievements concerned can be changed accordingly, or parts or all of the doctoral examination procedure can be declared invalid or failed by the doctoral board.

(2) If the doctoral student has committed deception with respect to a doctoral achievement and this only becomes known after the doctoral diploma is issued, the assessment of the doctoral achievement concerned can be subsequently changed or the doctoral degree can be revoked by the doctoral board.

(3) If the doctoral student has obtained admission to doctoral studies or the doctoral examination procedure by means of deception, threats, bribery or other unlawful means, the doctoral degree can also be subsequently revoked by the doctoral board when this becomes known.

(4) If the requirements for admission to doctoral studies or the doctoral examination procedure were not satisfied, without any intent to deceive by the doctoral student, and if this deficiency only becomes known

after the doctoral diploma has been issued, the deficiency will be remedied by passing the doctoral examination procedure.

(5) If the doctoral degree is revoked in accordance with § 19, para. 2 or 3, the certificate and doctoral diploma are to be withdrawn by the doctoral board. If the assessment of doctoral achievements has changed in accordance with § 19, para. 1 to 3, the certificate is to be withdrawn and a new certificate issued.

(6) The doctoral degree can be revoked if the doctoral student has been sentenced by final judgment to imprisonment for at least one year due to an intentional criminal offense, or has been sentenced by final judgment due to an intentional criminal offense that was prepared or committed using the doctoral degree.

(7) The individual concerned shall be heard before a decision is made to revoke the doctoral degree.

§ 20

Access to records

After the doctoral examination procedure has been completed, the doctoral student shall be granted access to the doctoral thesis reviews and records of the oral examinations upon request. The request for access must be submitted within one month after the certificate has been issued. The right to access lapses twelve months after the oral examinations have taken place. § 29 of the Administrative Procedure Act for the state of North Rhine-Westphalia remains unaffected.

IV. Joint doctorate

§ 21

Joint doctorate with a foreign university

(1) The Faculty of Mathematics and Natural Sciences of the University of Bonn can award the degree indicated in § 2, para. 1 together with a foreign university in a joint doctoral examination procedure.

(2) This procedure requires joint supervision by one supervisor from each university and at least two semesters of doctoral studies at each of the two universities. In particular, the requirements for admission to doctoral studies must be satisfied at both universities.

(3) For each joint procedure, an agreement is to be concluded between the University of Bonn and the Faculty of Mathematics and Natural Sciences and the foreign university at the beginning of doctoral studies to govern a doctoral examination procedure conducted jointly by the responsible bodies at the foreign university and the doctoral board, in particular joint examination, assessment and grading of the doctoral achievements in accordance with § 12 and § 14 by a doctoral committee. The agreement can include exceptions to the provisions of these Doctoral Degree Regulations. It must be approved by the doctoral board.

(4) The publication requirement for the doctoral thesis and the rights to it are based on the regulations of both universities.

(5) The dean of the Faculty of Mathematics and Natural Sciences is responsible for issuing the certificate.

(6) The degree is awarded with a joint diploma, unless otherwise provided in the agreement specified in sentence 1 of paragraph 3. It is issued in the applicable national languages; an English translation will be

included upon request. The joint diploma is, as a rule, signed by the responsible representative at the foreign university and the dean of the Faculty of Mathematics and Natural Sciences of the University of Bonn and bears the seals of both universities or faculties. The diploma contains information on the joint doctorate and that a single degree is awarded, which can be used either in the form awarded by the partner university or the form awarded by the Faculty of Mathematics and Natural Sciences of the University of Bonn. In the case of separate diplomas, sentence 3 of paragraph 6 also applies to the diploma from the Faculty of Mathematics and Natural Sciences.

V. Honorary doctorate

§ 22 Honorary doctorate

- (1) An honorary doctorate is awarded by resolution of the faculty council at the request of a department. The resolution requires a two-thirds majority of the members of the faculty council and the approval of two thirds of the professors in the faculty. The vote can be conducted by way of circulation.
- (2) The honorary doctorate is awarded by presentation of a diploma signed by the dean in recognition of the outstanding academic achievements of the nominee.
- (3) If the nominee used deception, threats, bribery or other unlawful means to obtain the outstanding academic achievements, the doctoral degree can subsequently be revoked by the doctoral board when this becomes known.
- (4) § 19, para. 7 applies accordingly to honorary doctorates.

VI. Final provisions

§ 23

Entry into force and publication

These Doctoral Degree Regulations shall enter into force on the day after their publication in the Official Announcements of the University of Bonn.

W. Witke

The Dean
of the Faculty of Mathematics and Natural Sciences
Prof. Dr. W. Witke

Executed pursuant to the resolution adopted by the faculty council of the Faculty of Mathematics and Natural Sciences on November 24, 2021 and the resolution passed by the Rectorate on January 25, 2022.

Bonn, February 17, 2022

M. Hoch

The Rector
of the University of Bonn
Professor Dr. Dr. h. c. M. Hoch

Annex 1
List of doctoral disciplines

Discipline of the doctorate	Department
Drug Sciences	Pharmacy
Astronomy/Astrophysics	Physics/Astronomy
Biology	Biology
Chemistry	Chemistry
Computational Life Sciences	Computer Science, Molecular Biomedicine
Geography	Earth Sciences
Geophysics	Earth Sciences
Geosciences	Earth Sciences
Computer Science	Computer Science
Food Chemistry	Pharmacy
Mathematics	Mathematics
Meteorology	Earth Sciences
Molecular Biomedicine	Molecular Biomedicine
Neurosciences	Biology, Molecular Biomedicine
Pharmacy	Pharmacy
Physics	Physics/Astronomy

Department	Discipline of the doctorate
Biology	Biology
Chemistry	Chemistry
Earth Sciences	Geography, Geophysics, Geosciences, Meteorology
Computer Science	Computer Science, Computational Life Sciences
Mathematics	Mathematics
Molecular Biomedicine	Molecular Biomedicine, Neurosciences, Computational Life Science
Pharmacy	Drug Sciences, Food Chemistry, Pharmacy
Physics/Astronomy	Physics, Astronomy/Astrophysics

Annex 2
Graduate schools

The following graduate schools were recognized by the faculty council of the Faculty of Mathematics and Natural Sciences when these Regulations entered into force:

Bonn International Graduate School of Mathematics (BIGS Mathematics)

Bonn-Cologne Graduate School of Physics and Astronomy (BCGS)

Bonn International Graduate School of Life & Medical Sciences (BIGS-LIMES)

Bonn International Graduate School of Drug Sciences (BIGS-DrugS)

Bonn International Graduate School of Chemistry (BIGS-Chemistry)

Bonn International Graduate School of Neuroscience (BIGS Neuroscience)

Bonn International Graduate School of Immunosciences and Infections (BIGS Immunosciences and Infection)

Bonn International Graduate School for Development Research at the Center for Development Research (BIGS-DR)

Annex 3

Research facilities where doctorates may be supervised by external supervisors

The Faculty of Mathematics and Natural Sciences allows doctoral students to pursue their doctorates at research facilities other than the University of Bonn. These research facilities should satisfy the following criteria:

- Research conditions at least equivalent to those in the Faculty of Mathematics and Natural Sciences at the University of Bonn
- Located close to the University of Bonn or proven close cooperation between members of the Faculty of Mathematics and Natural Sciences and the research facility concerned

The following research facilities were recognized as satisfying these criteria when these Regulations entered into force:

Faculties, institutes, affiliated institutions and centers of the University:

- All other faculties, institutes and affiliated institutions of the University of Bonn

Universities:

- Universities in other European countries that can jointly supervise doctoral students under a Cotutelle procedure (joint doctorate) with the University of Bonn
- Universities in non-European countries that have concluded bilateral research agreements or belong to joint research associations with the University of Bonn

Max Planck Institute and associated institutions:

- Max Planck Institute for Mathematics, Bonn
- Max Planck Institute for Radioastronomy, Bonn
- caesar (Center of Advanced European Studies and Research), Bonn

Helmholtz Association institutes:

- Forschungszentrum Jülich
- German Center for Neurodegenerative Diseases (DZNE), Bonn
- Deutsche Elektronen Synchrotron (DESY), Hamburg

Fraunhofer Society institutes:

- Fraunhofer Institute for Algorithms and Scientific Computing (SCAI), Sankt Augustin
- Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS), Sankt Augustin
- Fraunhofer Institute for Communication, Information Processing and Ergonomics (FKIE), Bonn

Leibniz Association institutes:

- Alexander Koenig Zoological Research Museum (ZFMK), Bonn

Other major institutions:

- German Aerospace Center (DLR), Cologne
- Facility for Antiproton and Ion Research (FAIR), Darmstadt
- Conseil Européen pour la Recherche Nucléaire (CERN), Geneva

Annex 4

List of conflict of interest criteria for § 3, para. 3 and § 12, para. 5

Exclusion is generally required under the following circumstances:

1. First-degree family relationship, marriage, civil partnership, cohabitation
2. Current or planned close research cooperation
3. Research cooperation within the last three years, e.g. joint publications
4. Common research interests with the candidate or persons specified in point 1

A case-by-case decision is generally required under the following circumstances:

5. Family relationships other than those specified in point 1, other personal connections or conflicts
6. Participation in mutual reviews within the past 12 months
7. Common research interests with the persons specified in point 5.