

## **Regulations Governing Doctoral Studies**

### **Of the Faculty of Georesources and Materials Engineering**

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**Please note: This publication is an English translation of the Regulations Governing Doctoral Studies. Only the German original of these regulations as published in the Official Announcements of RWTH Aachen University (“Amtliche Bekanntmachungen”) is legally binding.**

Based on § 2 (4) and § 67 (3) of the Higher Education Act of the State of North Rhine-Westphalia (Hochschulgesetz; HG) in the version of the announcement dated September 16, 2014 (Law and Official Gazette of the State of North Rhine-Westphalia p. 547), most recently amended by Art. 1 of the Act Concerning Further Measures to Address the COVID-19 Pandemic in Higher Education dated December 1, 2020 (Law and Official Gazette of the State of North Rhine-Westphalia p. 1110), RWTH Aachen University (Rheinisch-Westfälische Technische Hochschule; RWTH) has issued the following Regulations Governing Doctoral Studies of the Faculty of Georesources and Materials Engineering:

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## I. General

### § 1

#### Right to Award Doctorates

The Faculty of Georesources and Materials Engineering of RWTH Aachen University has the right to award doctorates.

### § 2

#### Doctorate (Academic Degree)

- (1) The doctorate establishes the candidate's ability to undertake independent academic work that exceeds the general objective of the Master's study programs of the Faculty. This ability is determined based on a thesis (dissertation) of high quality demonstrating an advancement of the state of scientific knowledge and an oral examination (defense). The doctoral degree is awarded upon successful completion of the doctorate.
- (2) The Faculty of Georesources and Materials Engineering awards the degree of Doktorin/Doktor der Ingenieurwissenschaften (Dr.-Ing.) [Doctor of Engineering Sciences] and Doktorin/Doktor der Naturwissenschaften (Dr. rer. nat.) [Doctor of Natural Sciences].

### § 3

#### Doctoral Degree Requirements

Doctoral degree requirements within the meaning of these regulations are:

- a) the dissertation,
- b) the oral examination (defense),
- c) the publication of the dissertation.

Once these doctoral degree requirements have been met, the doctorate can be declared completed by issuing a doctoral certificate.

### § 4

#### Dissertation

- (1) The candidate is required to submit an academic thesis (dissertation) that they have written independently in German or English. They may be permitted to write the dissertation in another language by submitting a request to the doctoral committee and as part of a joint doctoral examination process in accordance with § 20. In this case, the doctoral committee may request a certified translation of the binding text. The doctoral committee shall decide on whether to admit a dissertation written in a language other than German or English once the request has been submitted.
- (2) A substantial part of the dissertation must relate to the scientific fields of the Faculty of Georesources and Materials Engineering.

- (3) Cumulative dissertations may only be submitted with the approval of the supervisor. At least three current scientific papers that have appeared in internationally renowned, peer-reviewed journals or have been verifiably accepted for publication can be submitted as a cumulative dissertation. Deviations therefrom are permitted in justified exceptional cases and upon submitting a request to the doctoral committee. The candidate should be the sole or first author of all of these current scientific papers, but must be the sole or first author of at least two papers. The supervisor of the dissertation does not count as a contributing author. If the supervisor is named as the first author or the candidate is not the sole author, the candidate's significant contribution must be explicitly identified and described in the dissertation so that the candidate's ability to undertake independent academic work can be assessed. The research results of the papers should meet the requirements of a doctoral thesis and the publication dates should not be too far apart. The publications should have been written within the term of the supervision agreement and be thematically related to each other. The submitted papers must be prefaced with an overall introduction on the state of the relevant research, the research questions pursued, the main results, and the reception of the research contribution by the scientific community.
- (4) The dissertation must have been written under the supervision of a university lecturer in accordance with § 35 HG, a professor relieved of teaching duties or retired, an adjunct professor, an honorary professor or a Privatdozent (private lecturer) from the Faculty of Georesources and Materials Engineering. Upon application to the doctoral committee, in justified individual cases, it is possible to admit an early-career researcher who has obtained individual funding in a prestigious competitive process (in particular Emmy-Noether program, ERC Grant, BMBF Junior Research Group) as the supervisor of a doctoral thesis. This application must be submitted by the supervisor when applying for admission to the doctoral examination at the latest (§ 13). The supervisor is required to ensure appropriate academic supervision during the doctoral examination process.
- (5) Work submitted for previous qualifications may not be used for the dissertation.
- (6) Excerpts of prepublications on topics related to the dissertation that is currently in progress are only permitted with the consent of the supervisor and may be used in the dissertation in this case.

## **§ 5**

### **Oral Examination/Defense**

The oral examination consists of a freely spoken 15-minute presentation, without using projection media, as well as an examination discussion lasting at least 45 minutes that covers the dissertation as well as topics from the entire field to which the dissertation is related. A deviating regulation can also be contractually agreed upon in a joint doctoral examination process in accordance with § 20.

## **§ 6 Publication of the Dissertation**

The doctoral candidate is required to make their dissertation available in an appropriate manner to the scientific community by way of copying and distribution (see § 19).

## **§ 7 Doctoral Committee**

- (1) The Faculty forms a doctoral committee. This is composed of the dean, the spokespersons for the departments, and a representative of the group of researchers or staff with an advisory vote. The chairperson of the Doctoral Committee is the dean. The doctoral committee may invite guests to its meetings at any time.
- (2) The doctoral committee shall perform the following tasks:
  - a) determining the doctoral requirements and deciding on acceptance to doctoral studies in accordance with § 10, 11, 12,
  - b) admission to the doctoral examination in accordance with § 13,
  - c) initiating the doctoral examination process, including appointing the reviewers and the doctorate commission in accordance with § 14
  - d) deciding not to initiate the doctoral examination process in accordance with § 14 (4),
  - e) deciding on special cases during the doctoral examination process and appeals against decisions made by the doctoral commission.

The doctoral committee delegates the ongoing affairs of regular cases in accordance with letters a) through c) to its chairperson. The names of the admitted candidates are presented to the doctoral committee at its next meeting. The handling of rejections, appeals and special cases cannot be delegated.

- (3) Meetings of the doctoral committee are not public. Its members and guests are bound to confidentiality. A record shall be kept of the doctoral committee meetings. The chairperson informs the Faculty Council of important decisions made by the doctoral committee.
- (4) The doctoral committee has a quorum when more than half of its members with voting rights, including the chairperson, are present. Decisions of the doctoral committee must be made unanimously. If no unanimous decision is reached, the matter is referred to the Faculty Council, which makes decisions with a simple majority.
- (5) The doctoral committee's chairperson shall inform the candidate about any decisions relating to them by a written notification that includes information on legal remedies.

## **§ 8 Doctoral Commission**

- (1) A doctoral commission is formed to undertake the doctoral examination process. It includes the reviewers and other members, totaling a minimum of three and a maximum of nine individuals in accordance with Paragraphs 2 through 4.

A deviating regulation can also be contractually agreed in a joint doctoral examination process in accordance with § 20.

- (2) Next to the reviewers, the chairperson of the doctoral committee appoints at least two and at the most seven other members to the doctoral commission. These members must be university instructors in accordance with § 35 HG, professors relieved of teaching duties or retired, adjunct professors, honorary professors, or private lecturers (Privatdozenten). These members are to be members of the Faculty of Georesources and Materials Engineering. For interdisciplinary dissertations, at least one representative of another faculty or university should be included as a member to offer their expertise on a topic that is not covered by the faculty awarding the doctorate. A deviating regulation can also be contractually agreed in a joint doctoral examination process in accordance with § 20.
- (3) In accordance with § 35 HG of the Faculty of Georesources and Materials Engineering, every university instructor can be nominated as a member of the doctoral commission by the doctoral committee at their request. This application must be received by the Dean's Office no later than the appeal deadline in accordance with § 15 (2). If the doctoral committee rejects the nomination, the candidate may call in the Faculty Council. The final members of the doctoral commission must be appointed before the decision on the acceptance of the dissertation is made.
- (4) The chairperson of the doctoral committee shall appoint the chairperson of the doctoral commission. This individual must be a university instructor of the Faculty of Georesources and Materials Engineering (in accordance with § 35 HG) and may not be among the reviewers. A deviating regulation can also be contractually agreed upon in a joint doctoral examination process in accordance with § 20.
- (5) All members of the doctoral commission shall have voting rights. The doctoral commission makes decisions with a simple majority. In the event of a tie, the chairperson's vote shall decide the matter.
- (6) If a member appointed to the doctoral commission is not able to carry out the doctoral examination process for serious reasons, the doctoral committee shall select a replacement member where necessary. Members cannot withdraw from the doctoral commission unless in the event of illness.

## **§ 9 Reviewers**

- (1) The doctoral committee shall appoint at least two reviewers for the examination of the dissertation. Reviewers are university lecturers in accordance with § 35 HG, professors relieved of teaching duties or retired, adjunct professors, honorary professors, or Privatdozenten (private lecturers) from the Faculty of Georesources and Materials Engineering. Upon application to the doctoral committee, in justified individual cases, it is possible to admit a postdoctoral early-career researcher who has obtained individual funding in a prestigious competitive process (in particular Emmy Noether program, ERC Grant, BMBF Junior Research Group) as supervisor of a doctoral thesis. If there is a relationship of dependency between the first and second reviewers (e.g. due to an employment contract), a third reviewer from another institute must be appointed.

Reviewers can also be members of a different faculty or come from another – German or international – university or research institute. For cooperative doctorates, full-time university lecturers at universities of applied sciences can also be appointed as reviewers in accordance with the provisions of § 21.

- (2) At least one of the reviewers must be a full-time university lecturer in accordance with § 35 HG of the Faculty of Georesources and Materials Engineering. Exceptions must be approved by the doctoral committee.
- (3) The supervisor is the first reviewer in accordance with § 4 (4). This right ends five years after transfer to another faculty or another university.
- (4) If the content of the dissertation relates to scientific areas of another faculty, in accordance with § 35 HG, one or several university lecturers, professors relieved of teaching duties or retired, adjunct professors, honorary professors, or private lecturers from this faculty are to be appointed as reviewers by the doctoral committee; in this case, the dean of the other faculty is to be notified of the appointment.
- (5) Within the scope of a partnership with RWTH Aachen University, lecturers from a university of applied sciences can also be appointed as a reviewer. In accordance with § 36 (1) No. 4 HG the reviewer must have completed a habilitation (postdoctoral teaching qualification) or an equivalent scientific qualification. The doctoral committee shall determine whether the requirement has been met after obtaining a statement from the habilitation commission. As part of this cooperative supervision, the scope and content of subject matter considered suitable preparation for the doctorate are to be determined for the doctoral candidate together with the supervisor of the university of applied sciences, in accordance with § 67 (4) Sentence 1 No. 2 HG.

## II. Admission to Doctoral Studies

### § 10

#### General Admission Requirements for Graduates from German Universities

- (1) The doctoral examination process can commence if the candidate has obtained
  - a) a degree after relevant university studies with a standard study period of at least eight semesters for which a degree other than “Bachelor” is awarded, or
  - b) a degree after relevant university studies with a standard study period of at least six semesters and subsequent adequate courses in the doctoral subjects that prepare the candidates for the doctorate, or
  - c) a Master’s degree within the meaning of § 61 (2) Sentence 2 HG

and can demonstrate their suitability to undertake the independent academic work necessary for a doctorate through their academic work and achievements. The request to determine the admission requirements in accordance with § 12 is to be submitted to the faculty as soon as the doctoral candidate has started to work on the dissertation.

- (2) The scope of courses and related assessment criteria considered suitable preparation for the doctorate according to Paragraph 1 Sentence 1 b), including the number and type of certificates required, as well as the academic work and achievements demonstrating the candidate's suitability to undertake the scientific work necessary for a doctorate, is determined by the doctoral committee after consultation with the candidate. The doctoral committee can delegate this task to the responsible examination committee.
- (3) If a candidate shows exceptional scientific achievements, the doctoral committee may admit the candidate to the doctoral examination process at the request of three university instructors of the Faculty of Georesources and Materials Engineering with a majority of two thirds of its members in accordance with the provisions of § 49 (11) HG.
- (4) The prerequisite for the doctorate in engineering (Dr.-Ing.) is a degree in accordance with Paragraph 1 in an engineering course of study. Holders of a degree in mathematics or natural sciences pursuant to Paragraph 1 may be admitted to doctoral studies leading to a Dr.-Ing. degree if it is established before the opening of the procedure that the dissertation is relevant to the engineering sciences and the candidate has sufficient knowledge of engineering. In justified exceptional cases, this also applies to holders of another professional qualification from a university in another subject.
- (5) Prerequisite for a doctorate in science (Dr.rer.nat.) is a degree in accordance with Paragraph 1 in a mathematical/scientific or a geographical course of study. Holders of a degree in an engineering pursuant to Paragraph 1 may be admitted to doctoral studies leading to a Dr.rer.nat. degree if it is established before the opening of the procedure that the dissertation is relevant to the field of mathematics or the natural sciences and the candidate has sufficient knowledge of mathematics or the natural sciences. In justified exceptional cases, this also applies to holders of another professional qualification from a university in another subject.

## **§ 11**

### **Admission to Doctoral Studies Based on a Degree Awarded by an International University**

A general requirement for admission to doctoral studies is a professional qualification or another final examination to complete a relevant scientific course with a standard period of study of at least eight semesters including an academic final thesis integrated into the course awarded by a university outside Germany if the degree

- a) is to be considered equivalent to corresponding degrees that are awarded at German universities based on intergovernmental agreements,
- b) is to be considered a general requirement for admission to the doctoral program based on evaluations of the Central Office for Foreign Education at the Standing Conference of the Ministers of Education (ständige Konferenz der Kultusminister) of the federal states or the German Rectors' Conference (Hochschulrektorenkonferenz),
- c) is to be considered equivalent with a relevant degree that can be awarded at RWTH Aachen University based on agreements with partner universities outside of Germany by RWTH Aachen University.

Within the scope of admission to doctoral studies based on a degree awarded by an international university, the doctoral committee may impose additional educational requirements that are related to the scientific field that is to be addressed in the dissertation.



The doctoral committee can delegate the task to the responsible examination committee.

## **§ 12**

### **Application for Assessment of the Admission Requirements**

- (1) Every candidate who intends to undertake doctoral studies at the Faculty of Georesources and Materials Engineering shall submit an application for the assessment of whether they meet the admission requirements immediately after receiving the written letter of intent of a university lecturer from the faculty to supervise the dissertation. The application is not the same as the application for admission to the doctoral examination in accordance with § 13.
- (2) The application in Paragraph 1 shall be submitted in writing to the doctoral committee of the Faculty of Georesources and Materials Engineering. The following must be submitted together with the application:
  - a) the pursued doctoral title,
  - b) the intended topic of the dissertation,
  - c) the written letter of intent (original, not a copy) from a university lecturer of the Faculty of Georesources and Materials Engineering who will supervise the dissertation in University in accordance with § 4 (4).
  - d) the candidate's CV in tabular form (signed and dated),
  - e) the certificates and documents required in accordance with §§ 10 and 11 (notarized copies)
  - f) an affidavit on whether the candidate has submitted doctoral applications in the past. The candidate must also state the name of the German or international university or faculty, the result, the time as well as the topic of the dissertation.
  - g) data collection form for statistical purposes (in electronic form)
  - h) a declaration that the candidate accepts these Doctoral Regulations.
- (3) The doctoral committee decides whether to accept or reject the doctoral candidate. Acceptance may be conditional on completing additional study programs or examinations in accordance with § 9 (5), 10 (2) and 11. The candidate shall be notified in writing of the acceptance and, if applicable, additional requirements. They shall receive a written notification of rejection or conditional acceptance, including the reasons for this decision and information on legal remedies.
- (4) After the candidate has been accepted, the doctoral candidate and the first supervisor must enter into a supervision agreement, in accordance with the template of the Faculty of Georesources and Materials Engineering (Annex 2). The first supervisor is required to ensure appropriate academic supervision during the doctoral procedure.
- (5) If the supervision agreement is terminated by the first supervisor, the doctoral committee shall check whether an alternative appropriate supervision agreement is possible. This also applies if the first supervisor transfers to another university and, as a result, the supervision agreement ends.

## **§ 12a**

### **Data Collection, Processing, and Transfer**

In accordance with § 5 of the Act on Statistics for Higher Education (Hochschulstatistikgesetz – HSchStG), universities must collect personal data about those who have been admitted to doctoral studies in accordance with § 12 (3). The personal data of the doctoral candidates are automatically stored by the University and are processed by the IT Center as well as the Central University Administration in order to comply with legal requirements. The University will only transmit the data if this is necessary to comply with its legal duties or duties specified in its statutes. Data transfer to the Statistical Office of the State of North Rhine-Westphalia (IT NRW) concerns the data collection characteristics in accordance with § 3 (1), § 4, and § 5 (2) HSchStG (Higher Education Statistics Act).

### III. Doctoral Examination Process

#### § 13

#### Application for Admission to the Doctoral Examination

- (1) The candidate's application for admission to the doctoral examination shall be submitted in writing to the doctoral committee of the Faculty of Georesources and Materials Engineering.
- (2) The application must include:
  - a) the pursued doctoral title,
  - b) the title of the dissertation.
- (3) The following documents are to be submitted with the application:
  - a) the candidate's current CV in tabular form,
  - b) a Certificate of Good Conduct from the Federal Central Register of document type O. If the candidate works in the public or church service, confirmation from the employer that the Certificate of Good Conduct was submitted at the beginning of employment is sufficient. This is to be reviewed on an individual basis.
  - c) a dissertation in accordance with § 4 (1) in A4 format with word-processed text, in four bound copies (adhesive binding) as well as one electronic copy,
  - d) a specimen copy of any publications,
  - e) information on the academic supervisor of the dissertation,
  - f) an affidavit that the candidate has independently completed the dissertation, that they have indicated any means of support used in the dissertation, and that the printed and electronic versions are identical.
  - g) a written declaration that the candidate has adhered to the Guidelines and Procedures for Safeguarding Good Scientific Practice at RWTH Aachen University,
  - h) confirmation of completion of a course on Safeguarding Good Scientific Practice at RWTH Aachen University or a corresponding course at another institution.. The chair of the doctoral committee shall decide on whether completion of similar courses is recognized or whether any exceptions apply.
  - i) a brief summary of the dissertation in German and English of no more than two pages. A deviating regulation can also be contractually agreed in a joint doctoral examination process in accordance with § 20.

- (4) If the dissertation was produced at an institution outside RWTH Aachen University, the candidate must submit a written declaration that the publication of the dissertation does not violate any existing trade secrets.
- (5) Certified copies of certificates are to be submitted. Certified translations of certificates not in English or German are to be included upon request.

## **§ 14**

### **Initiation of the Doctoral Examination Process**

- (1) The doctoral committee initiates the doctoral procedure once a written application for the initiation of the doctoral procedure in accordance with § 12 has been received in full and the reviewers have declared that they are willing to provide an expert opinion. As a rule, the procedure is initiated no later than in the second meeting of the doctoral committee after receipt of the application in accordance with § 13.
- (2) The reviewers and the doctoral commission are to be appointed upon initiation. The candidate shall be notified of the initiation immediately in writing.
- (3) If the doctoral application and the submitted documents do not meet the requirements (see § 10, 11, 12, 13), the doctoral procedure shall not be initiated. If the doctoral committee rejects the initiation of the doctoral procedure, the candidate shall be informed by the doctoral committee's chairperson immediately in writing, stating the reasons for this decision along with information on legal remedies.
- (4) An application submitted to the Faculty of Georesources and Materials Engineering to initiate the doctoral procedure can be withdrawn no later than three months after the announcement of the opening of the doctoral examination procedure in accordance with paragraph 2.

## **§ 15**

### **Examination of the Dissertation**

- (1) The reviewers examine the dissertation and report back to the doctoral committee in separate written expert opinions within three months. They can request that the dissertation either be accepted, rejected, revised, or not even considered if they deem the Faculty not to be the responsible authority. They must furthermore include the reasons justifying their recommendation. An expert opinion supporting the acceptance of the dissertation must include a recommended grade. If a reviewer is not able to prepare their expert opinion within three months, the doctoral committee may appoint another reviewer within the fourth month. If the doctoral committee cannot convene within this period, the dean can become involved in accordance with § 7 (2) Sentence 2. However, the appointment of new reviewers is not to be considered a special case within the meaning of § 7 (2) Sentence 1 Letter e).
- (2) In accordance with § 35 Higher Education Act (HG), once the expert opinions have been received, the dean shall present the dissertation and the expert opinions to the Faculty's instructors, professors relieved of teaching duties or retired, adjunct professors, honorary professors, private lecturers from the faculty, and the members of the Faculty Council who have a doctorate degree to allow them to make a statement or, if necessary, submit a written objection.

The expert opinions are also provided electronically. The dissertation and expert opinions shall be available for review for a period of two weeks during the lecture period and four weeks during the lecture-free period. The objection period expires at the end of the second working day following the end of the review period.

- (3) If the reviewers unanimously recommend the acceptance of the dissertation and no objection has been made, the dean shall determine that the dissertation is accepted. If the reviewers unanimously recommend the rejection of the dissertation and no objection has been made, the dean shall determine that the dissertation is rejected in a written notification that includes information on legal remedies.
- (4) If the reviewers disagree on the acceptance of the dissertation or at least one of the reviewers recommends that the dissertation be revised or not considered and an objection has been submitted within the deadline, the dean shall present the dissertation, together with the expert opinions, comments and objections, to the doctoral commission. It shall discuss the matter within one month after receiving the documents. It can recommend consulting further reviewers. If one of the reviewers recommends rejecting the dissertation, at least one further expert opinion is to be requested. The doctoral committee recommends whether the dissertation is to be accepted, rejected, or revised, or not to be considered. If the recommendation is made unanimously, the dean shall make the necessary determinations. Non-consideration does not mean that the dissertation has been rejected.

## **§ 16**

### **Revision of the Dissertation**

- (1) Based on the decision by the doctoral committee or the doctoral commission in accordance with § 15 (4) and § 15 (5), the dean can ask the candidate to revise the dissertation once within a specific deadline. The conditions for the revision are to be put on record and to be communicated to the doctoral candidate and the supervisor in writing. The deadline can only be extended once in writing at the candidate's request. If the deadline is exceeded, the dean shall determine the dissertation rejected in a written notification that includes information on legal remedies. The doctoral examination process is terminated once the deadline for legal remedies has expired.
- (2) Once the dissertation has been revised within the deadline, it shall be reexamined in accordance with § 15. The expert opinions of the revised version must particularly address the question of whether the conditions in accordance with Paragraph 1 have been adequately met. The revised version of the dissertation may only be rejected if the additional requirements have not been adequately met. The dissertation must also be rejected if there are strong scientific objections to sections that were rephrased or newly added to the dissertation during the revision.

## **§ 17**

### **Oral Examination/Defense**

- (1) Once the dissertation has been accepted, the dean will arrange an oral examination or defense. It will be conducted by the doctoral commission in accordance with Paragraph 5.

- (2) The dean shall inform the university instructors of the Faculty of Georesources and Materials Engineering, the rector, the other deans, the members of the doctoral commission, and the members of the Faculty Council as well as the candidate of the time and place of the oral examination within a deadline of at least ten days. The time and place of the oral examination shall be announced on the department's notice boards. The place of the oral examination is RWTH Aachen University. A deviating regulation can also be contractually agreed in a joint doctoral examination process in accordance with § 20.
- (3) The members of the doctoral committee and all professors at the Faculty have the right to take part in the oral examination as guests. Other guests are only permitted with the consent of the candidate if they are members of RWTH Aachen University who hold a doctorate. Doctoral candidates who have started working on a dissertation topic are to be admitted as audience members, unless the candidate objects to this. Participation does not include advising on or announcing the examination results to the candidate.
- (4) Each candidate shall be examined individually. The oral examination is conducted in German or English. A deviating regulation can also be contractually agreed in a joint doctoral procedure in accordance with § 20.
- (5) The oral examination is conducted by at least three examiners. One of them must be the first reviewer and one other reviewer as well as the chair of the doctoral commission. The oral examination consists of a freely spoken 15-minute presentation, without using of projection media, as well as an examination discussion lasting at least 45 minutes that covers the dissertation as well as topics from the entire field to which the dissertation is related. A deviating regulation can also be contractually agreed in a joint doctoral examination process in accordance with § 20.
- (6) The doctoral commission shall decide on the result immediately after the oral examination.
- (7) If the candidate fails the oral examination, it may only be repeated once, and only at the Faculty of Georesources and Materials Engineering. The candidate can enroll to repeat the examination no earlier than three months but at the latest 18 months later.

## **§ 18**

### **Grading of the Doctoral Examination**

- (1) The doctoral examination is passed if the written dissertation has been accepted and the oral examination has been passed.
- (2) The doctoral examination is not passed if the dissertation is rejected or the candidate fails the repeat oral examination (in accordance with § 17 (7)). The dean shall inform the candidate that the doctoral examination has not been passed, stating the reasons for this. The dean shall inform the candidate that the doctoral examination has not been passed, stating the reasons for this.
- (3) If the doctoral examination is not passed, the dissertation cannot be presented again for the purposes of the doctorate.

- (4) Candidates shall only be given one final attempt and not before the expiry of one year after the failure has been announced. A new dissertation is to be presented.
- (5) Copies of the dissertation (at least one copy) with objections and other annotations shall remain with the Faculty of Georesources and Materials Engineering.
- (6) The doctoral commission shall determine an overall grade of the doctoral examination as
 

"with distinction"	(summa cum laude),
"very good"	(magna cum laude),
"good"	(cum laude) or
"sufficient"	(rite).
- (7) The candidate must be informed of the result immediately.

### § 19

#### Procedure for Publishing the Dissertation

- (1) Once the candidate has passed the doctoral examination, they shall present the dissertation to the dean for the approval of the version intended for publication. The dean shall issue this approval in agreement with the reviewers once any additional requirements that may have been stipulated are met.
- (2) The Faculty of Georesources and Materials Engineering is entitled to request that the doctoral candidate
  - include a summary of their work of no more than two printed A4 pages and transfer the right to the University to publish this summary or offer it to a publisher or a database, and
  - provide the title, subtitle, and summary in two languages (usually in German and English).
- (3) The doctoral candidate is required to make their dissertation available in an appropriate manner to the scientific community by way of copying and distribution. This happens either by
  - a) submitting 4 (or 5 if there are three reviewers) deposit copies to the Faculty's office and 50 deposit copies to the University Library in the form of a book or photo print, or
  - b) publishing it in a scientific journal; in this case, it is necessary to submit 4 (or 5 if there are three reviewers) deposit copies to the Faculty's office and 15 deposit copies to the University Library; it must also be stated, e.g. on the back of the title page, in which journal the dissertation is published (including the publisher and its location), all deposit copies must include the note "D 82 (Diss. RWTH Aachen University), [indicating the year of the oral examination], or
  - c) distribution in book stores by a commercial publisher with a minimum circulation of 150 copies; in this case it is necessary to submit 4 (or 5 if there are three reviewers) deposit copies to the Faculty's office and 15 deposit copies to the University Library; it must also be stated, e.g. on the back of the title page, which publisher published the dissertation (including the publisher and its location), all deposit copies must include the note "D 82 (Diss. RWTH Aachen University), [indicating the year of the oral examination], or

- d) submitting an electronic copy to the University Library, the data format and transfer of which is to be agreed with the University Library, together with a deposit copy. A further 3 (or 4 copies if there are three reviewers) deposit copies are to be submitted to the Faculty's office. An abstract in German and English is required for publication. The doctoral candidate shall transfer the right to publish the electronic version in data networks to the University Library, the DNB (German National Library) in Frankfurt/Leipzig and, if applicable, the German Research Foundation's Special Collection Library and confirms that the electronic version corresponds with the accepted dissertation. The University Library shall check the delivered version to ensure it is legible and meets the specified requirements. The submission of files that do not meet the specified file format and data carrier requirements shall not be considered a publication.

All copies to be submitted must include a dedicated title page with the name (see annex 1) and may include a CV in tabular form as well as the educational background of the author in German and English. They must be printed on age-resistant, wood-free, and acid-free paper and permanently bound together. They must also be technically flawless. If it is determined that the copies do not meet these criteria, they shall be rejected. Rejected work shall be considered unpublished; the doctoral certificate shall therefore not be issued.

- (4) The dissertation is to be published no later than one year after the oral examination. In justified exceptional cases, the dean may extend the deadline. If the candidate misses the deadline, all rights acquired with the examination shall expire.
- (5) In justified exceptional cases and at the doctoral candidate's request, the dean may freeze the publication of the dissertation for up to one year. The work will be kept in the Dean's Office under lock and key during this time.

## § 20

### Joint Doctoral Examination Process

- (1) A doctoral examination process jointly supervised with an international university (partner university) requires entering into an individual cooperation contract for the implementation and supervision of the doctoral project and evaluation and assessment of the candidate's performance.
- (2) The doctoral procedure as part of a joint doctoral examination process covers at least the evaluation of the submitted dissertation in accordance with § 4, an oral defense or oral examination, and the publication of the dissertation.
- (3) After successfully completing the doctoral examination process, the Faculty of Georesources and Materials Engineering shall award an academic degree in accordance with § 2 (2) and the partner university an academic degree in accordance with its applicable regulations. These academic grades may not be used concurrently.

## **§ 21 Cooperative Doctorate**

- (1) Candidates can also be accepted as doctoral candidates who conduct research at a university of applied sciences if they are supervised by a university lecturer in accordance with § 35 HG, a professor relieved of teaching duties or retired, an adjunct professor, an honorary professor or a private lecturer (Privatdozent) of the Faculty of Georesources and Materials Engineering.
- (2) If a candidate conducting research at a university of applied sciences is accepted as a doctoral candidate and they should be enrolled at an institution, they are to be enrolled at RWTH Aachen University.
- (3) Upon admission of a person who conducts research at a university of applied sciences, full-time professors at this university who have a significant research output can also be appointed as reviewers if they can demonstrate achievements equivalent to those required for a habilitation (postdoctoral teaching qualification). The doctoral committee shall decide on whether the prospective reviewer's achievements are equivalent to a habilitation after obtaining a statement from the habilitation commission of the Faculty of Georesources and Materials Engineering.

## **§ 22 Doctoral Degree Certificate**

- (1) After the dissertation has been published, a doctoral degree certificate is issued and signed by the rector and the dean. The doctoral degree certificate bears the date of submission of the deposit copies to the University Library. The reviewers who recommend acceptance of the dissertation are to be named on the doctoral certificate. The doctoral procedure is completed once the doctoral diploma has been issued. After receiving the doctoral certificate, the candidate has the right to carry the doctor title.
- (2) At the doctoral candidate's request, an additional copy of the doctoral certificate can be issued in English if the English title of the dissertation has been provided.

## **§ 23 Honorary Doctorate and Renewal of the Doctoral Certificate**

- (1) Upon request by the Faculty of Georesources and Materials Engineering, the Senate may award the academic degree and title of an honorary doctor of engineering (Dr.-Ing.) or doctor of science (Dr.rer.nat.) honoris causa (h.c.) to individuals who show extraordinary personal, scientific, technical, or artistic performances in a field in which the University specializes. They may not be members or associates of RWTH Aachen University.
- (2) The Faculty may only submit honorary doctorate applications for the doctoral degrees that it is entitled to award. In preparation for this application, the Faculty should obtain at least two external expert opinions. The Faculty Council shall decide on the application to the Senate in two sessions. The application requires the support of two thirds of the present members of the doctoral committee.



- (3) The rector awards the honorary doctorate by presenting a doctoral certificate which commends the merits of the honored individual.
- (4) Doctoral graduates of RWTH who are distinguished for their scientific or practical professional work may be honored with the renewal of the doctoral certificate after 25 or 50 years or on extraordinary occasions. The Faculty Council shall decide on this honor.

#### **IV. Final Provisions**

##### **§ 24**

##### **Center for Doctoral Studies (CDS)**

Every candidate may also complete a program at the Center for Doctoral Studies. For successfully taking part in the program, the candidate shall receive a doctoral supplement from the Center for Doctoral Studies about the work completed there.

##### **§ 25**

##### **Revocation of the Doctoral Degree**

- (1) The doctoral degree may be revoked
  - a) if it transpires that it was achieved on the basis of false statements regarding significant requirements for admission to doctoral studies,
  - b) if it transpires that it was achieved using deception regarding the doctoral degree requirements,
  - c) if academic misconduct has been determined in relation to the dissertation or
  - d) if the doctoral graduate has been sentenced to at least one year in prison after being found guilty of a deliberate crime.
- (2) If circumstances come to light that would justify the revocation of the doctoral degree in accordance with Paragraph 1, the doctoral graduate shall be consulted on the accusations before the doctoral committee makes a decision. If an oral hearing is held, a record of the hearing is to be taken.
- (3) The doctoral committee shall communicate decisions detrimental to the doctoral candidate as well as the reasons for these decisions in writing and with information on legal remedies.
- (4) RWTH Aachen University shall inform all other German universities of the invalidity of the doctoral work or the revocation of the doctoral degree.
- (5) The provisions of Paragraphs 2 through 4 shall apply accordingly to the revocation of the degree and the title of an honorary doctor.

- (6) Following a decision in accordance with Paragraph 1, the doctoral certificate shall be revoked or invalidated in another way.

## § 26

### Viewing of Examination Records

After completing the oral examination, the candidate may submit a request to view their examination records. The application shall be submitted within a month of the announcement of the examination regulation. The chairperson of the doctoral committee shall determine the place and time to view the records.

## § 27

### Entry Into Force and Transitional Provisions

- (1) These regulations shall be published in the official announcements of RWTH University and will enter into force on the day after publication.
- (2) Doctoral candidates who submitted their application for admission to the doctoral examination procedure in accordance with § 10 or § 11 before October 1, 2020, are exempt from the obligation to provide evidence in accordance with § 13 Para. 3 letter h).

Issued based on the resolutions of the Faculty Council of the Faculty of Georesources and Materials Engineering dated July 21, 2021.

It is pointed out that, in accordance with § 12 (5) NRW Higher Education Act, no claims may be asserted after one year has elapsed since official publication of this announcement for a violation of procedural or formal requirements of the regulatory or other autonomous right of the university, unless:

- 1) the announcement has not been properly published
- 2) the Rectorate has objected, prior to publication, to the decision of the committee adopting the regulations,
- 3) the defect of form or of procedure has been previously notified in a complaint to the University, specifying the infringed legal provision and the fact which gives rise to the defect, or
- 4) the legal consequence of the exclusion of complaints was not pointed out in the public announcement.

For the Rector  
The Registrar  
of RWTH Aachen University

Aachen,  
dated

August 10, 2021

sgd. Nettekoven

Manfred Nettekoven

**Annex 1 Title Page/First Page Deposit Copy**

Title

From the Faculty of Georesources and Materials  
Engineering of RWTH Aachen University

to obtain the academic degree of a

**Doctor of Engineering/Doctor of Science**

Approved Dissertation

Presented by

**Academic degree First name Last name Academic degree**  
**(academic degree can be placed before or after, depending on the type of degree)**

**Reviewer: Univ.-Prof. Dr.-Ing./Dr.rer. nat. Mustermann**

**Univ.-Prof. Dr.-Ing./Dr.rer. nat. Musterfrau**

Date of the oral examination: MM/DD/YYYY

(Intended for electronic publication only):  
This doctoral dissertation is available online on the website of the University Library.

*Please note: there are no specific formatting instructions for doctoral dissertations*

## Annex 2



## **Supervision Agreement** **Template for the Faculty of Georesources and Materials Engineering**

RWTH Aachen University is a leading university of technology committed to excellence in research. The University considers it its duty to support early-career researchers with their doctoral research projects and guide them to fully benefit from its academic environment. One major goal is to ensure a trusting collaboration of a high academic standard between doctoral candidates and their supervisors. To achieve this, the doctoral candidate and the supervisor enter into the following Supervision Agreement. The Regulations Governing Doctoral Studies of the Faculty of Georesources and Materials Engineering and the Principles for Securing Good Scientific Practice of RWTH Aachen University in the currently valid version form the basis for the agreement.

The Supervision Agreement does not confer any right to complete a doctoral thesis and examination, but regulates the rights and obligations of the doctoral candidate and their supervisor.

The parties stated

\_\_\_\_\_ (Doctoral Candidate),

\_\_\_\_\_ (First Supervisor),

hereby enter into the following agreement:

### **1. Subject Area of the Doctoral Thesis**

The doctoral candidate shall write up a doctoral thesis as an independent scientific work in the field of:

\_\_\_\_\_.

The doctoral candidate must be accepted by the doctoral committee of the Faculty of Georesources and Materials Engineering before work on the doctoral topic can commence.

Date of acceptance: \_\_\_\_\_

## 2. Objectives and Work Plan

The Supervision Agreement is valid from \_\_\_\_\_ to \_\_\_\_\_

The aim of the doctoral project is to create an independent scientific thesis in the above named subject area which delivers original contributions to research.

Typically, a doctoral project has the following stages:

- Preparatory phase for reviewing literature and acquiring the necessary skills
- Advanced-level phase: the candidate identifies research objectives which have not yet been addressed, but which can be successfully achieved within the doctoral project and published as contributions to research.
- Development and publication phase (for example, the candidate publishes first results and/or presents them at conferences)
- Final phase in writing the dissertation and preparation for the oral examination.

The phases may overlap extensively and their duration depends on the skills and the time invested by the doctoral candidate. The Supervision Agreement is only valid for the period above unless the parties mutually agree to an extension.

## 3. Supervision of the Doctoral Thesis

### a. Obligations of the first supervisor

(1) The first supervisor advises and supports the doctoral candidate in their independent research work by

- introducing the candidate to the subject area and the relevant academic environment
- providing advice on how to procure the relevant literature and research equipment/materials
- giving recommendations on how to formulate and limit the topic and research question,
- discussing and evaluating hypotheses and methodology,
- discussing and evaluating results,
- supporting the candidate in participating in national and international scientific conferences, as far as the budget allows
- making it possible for the candidate to gain practical experience, if needed
- advising the doctoral candidate with arranging and presenting (structure, language) the dissertation with the aim of ensuring on-time completion,
- advising the doctoral candidate on interdisciplinary qualification and personal development.

(2) Compatibility between research work and family life is to be taken into account.

(3) If a second supervisor has been appointed, these responsibilities may be shared among both supervisors.

### b. Responsibilities of Doctoral Candidates

- Candidates commit themselves to maintain an effective working relationship with the supervisor and make use of the supervision support as outlined in section 3a. This is facilitated by keeping in close contact with the supervisor and keeping committed to targeted, independent academic work.
- Upon request, at any time, candidates shall provide the first supervisor and the Dean's Office with information about the status and progress of their dissertation. Candidates shall also provide information on the completion of qualification measures required as part of the doctoral procedure.
- As a rule, candidates submit at least one contribution to a peer-reviewed journal or to peer-reviewed proceedings of an international conference.

#### 4. Workplace and Working Conditions

Should the doctorate be carried out as part of an employment relationship at RWTH or a scholarship, the first supervisor shall ensure appropriate working conditions.

#### 5. Conflicts and Termination of the Supervision Agreement

In the event of conflicts that cannot be resolved between the parties, the first supervisor or the doctoral candidate may request the involvement of the faculty ombudsperson who seeks to amicably resolve the conflicts.

Furthermore, in cases of conflict, the doctoral candidate has the opportunity in addition to involve the ombudsperson for academic staff. Should the candidate want to withdraw from the doctoral project, they can terminate the supervision relationship at any time without providing any reasons. The Supervision Agreement can also be terminated at any time by mutual consent.

In the event that the candidate and the first supervisor disagree in their assessment of whether the candidate is capable of completing the doctoral project, the supervisor will contact the ombudsperson of the Faculty. If, after involvement of the ombudsperson and having granted the candidate a further period of time to continue working on the thesis, the supervisor reconfirms their initial assessment, the supervision agreement can be terminated.

Date and signatures:

\_\_\_\_\_ (Date, Doctoral Candidate)

\_\_\_\_\_ (Date, First Supervisor)