Doctoral degree regulations
of the Graduate School of Mathematics and Natural Sciences
of the
Georg-August-University Göttingen
- Georg-August University School of Science (GAUSS) -
RerNat-O

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I. General information

§ 1 Purpose of the doctoral degree regulations; scope of application

(1) The Doctoral Degree Regulations of the Graduate School of Mathematics and Natural Sciences - Georg-August-University School of Science (GAUSS) - (RerNat-O) regulate the implementation of doctoral procedures in mathematics and natural sciences, including the awarding and withdrawal of doctoral degrees at the Georg-August-University Göttingen.

(2)¹ The provisions of these regulations are binding for the structured doctoral programs or doctoral degree programs (hereinafter jointly referred to as "programs") belonging to the Georg-August University School of Science (GAUSS) (hereinafter referred to as "Graduate School"). ²In addition, the subject-specific provisions of a program apply, which are regulated in the annexes and, if applicable, in supplementary regulations of the programs (hereinafter: program regulations). ³Conflicting or deviating subject-specific provisions are invalid unless these regulations expressly permit deviations.

(3) The RerNat-O also regulates the awarding of the degree and dignity of an honorary doctor of natural sciences (Doctor rerum naturalium honoris causa) at the Georg-August-Universität Göttingen.

(4)¹ These regulations govern the withdrawal of the doctoral degrees of "Doctor of Natural Sciences" (Dr. rer. nat.) and "Doctor of Philosophy" (Ph.D.) as well as the degree and dignity of an honorary doctor of natural sciences, which were awarded after these regulations or before these regulations came into force at the faculties participating in GAUSS. ²Sentence 1 does not apply to doctoral degrees awarded by the Faculty of Agricultural Sciences or the Faculty of Forest Sciences and Forest Ecology.
§ 2 University degree

(1) The Georg-August-Universität Göttingen confers the degree of Doctor of Natural Sciences (Dr. rer. nat.) by awarding a doctorate in accordance with the provisions of these regulations.

(2) At the request of the doctoral candidate, the degree "Doctor of Philosophy" (Ph.D.) can be awarded instead of the degree of a doctor of natural sciences (Dr. rer. nat.), which is marked on the doctoral certificate and, if applicable, the doctoral diploma with the addition "Division of Mathematics and Natural Sciences" as mathematical-scientific.

(3) The degree of Doctor of Natural Sciences (Dr. rer. nat. h. c.) may be awarded on completion of an extraordinary doctorate.

§ 3 Responsibilities

(1) The Executive Board of the Graduate School is responsible for all matters of the Graduate School, unless other responsibilities are specified in these regulations, the regulations of the Graduate School (hereinafter: GAUSS-O) or in the subject-specific regulations of a program.

(2) If a faculty that is not part of the Faculty of Mathematics and Natural Sciences of the Georg-August-Universität Göttingen is responsible for the management of a program, the Executive Board of the Graduate School shall take the place of the Dean's Office or the Faculty Council.

(3) The examination board of the respective program is responsible for ensuring that the examinations are carried out and that the provisions of these regulations and the program regulations are complied with; in the case of inter-faculty programs and programs supported
by associated faculties, the examination board must be confirmed by the Executive Board of the Graduate School.

(4) The Faculty Council of the faculty offering the program is responsible for deciding on the subject-specific provisions of a program; in the case of several faculties offering the program, the Faculty Council of the lead faculty is responsible after consultation with the Faculty Councils of the other participating faculties. The Executive Board of the Graduate School must be informed at the latest before the subject-specific provisions are published. The subject-specific provisions of a program may include regulations on failure to pass as well as supplementary provisions, in particular further admission requirements as well as the type and scope of the coursework and teaching achievements to be completed.

II About the doctoral process

§ 4 Admission requirements for doctoral programs; Inclusion in a program

(1) A prerequisite for the admission of applicants as doctoral candidates to a program is the successful completion of a consecutive mathematics and natural sciences Master's degree program with a standard period of study of at least one year and a total duration of study of at least four years, the successful completion of a mathematics and natural sciences degree program with a standard period of study of at least eight semesters or proof of an equivalent degree at a German university or at a university belonging to one of the Bologna signatory states. Final examinations that have been passed in a country outside the Bologna signatory states require a determination of equivalence to the degrees according to sentence 1, taking into account the proposals of 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 in the Federal Republic of Germany (KMK) for the recognition and assessment of foreign educational certificates, which are set out at the URL http://anabin.kmk.org. The grades of the foreign educational certificates should be converted into the German grading system. In the case of sentences 2 and 3, the final thesis of the degree program providing the admission qualification must correspond to the academic level of the mathematics and natural sciences faculties at the University of Göttingen. The determination of equivalence to the degrees according to sentence 1 is made by the responsible examination board.
(2) Notwithstanding paragraph 1, anyone who is enrolled in a mathematics or natural sciences Master's degree program and has already successfully completed a significant amount of examinations and coursework in this program is also eligible for admission if both the Bachelor's degree and the previous examination results in the Master's degree program are well above average; this is particularly the case if a grade point average is proven that is among the top ten percent of the grade point average of a year in the respective degree program. In this case, admission to a program requires the approval of the doctoral faculty council members of the faculty at which enrollment is to take place or, in the case of an institution within the meaning of Section 3 (2) sentence 3, the approval of the responsible examination board. In the subject-specific regulations of a program that demonstrates special quality assurance procedures, a procedure deviating from sentences 1 and 2 may be regulated in agreement with the Executive Board of the Graduate School.

(3) The determination of the equivalence of a degree in other degree programs is possible with the consent of the doctoral faculty council members of the faculty in which the enrolment is to take place, provided that the applicant's previous education in a mathematics or natural science degree program is proven to be equivalent in terms of academic rank. In the case of an institution within the meaning of § 3 para. 2 sentence 3 or in the event that the faculty is not one of the founding faculties of the graduate school, the responsible examination board shall make the decision on recognition.

(4) If individual admission requirements are not fulfilled, conditional admission may be granted. In this case, the missing admission requirements amounting to a maximum of 15 C must be subsequently fulfilled within two semesters of enrolment.

(5) A further admission requirement is at least a written confirmation from a person authorized to examine in the program (first supervisor) that he or she will supervise the applicant in the event of admission to the program as a doctoral candidate and can guarantee proper supervision (confirmation of supervision).

(6) Furthermore, access authorization is only granted if

a) no intermediaries were engaged for the purpose of identifying promotional opportunities in return for payment,

b) in connection with the doctoral procedure and its preparation, neither remuneration was paid nor services equivalent to remuneration were provided or services were used free of charge that contradict the purpose of an examination procedure,
c) the right to the examination still exists,

d) there are no grounds for withdrawing the doctoral degree,

and this is confirmed by the applicant in accordance with Annex 1.

(7) The successful application for admission to a program is confirmed in an online form provided by the Graduate School, which, once printed out, serves as a template for enrolment and as a supervision agreement, by the signature of the program director and the signature of the dean or dean of studies of the receiving faculty. In the event of a merger of programs to form an institution within the meaning of Section 3 (2) sentence 3, the procedure deviating from sentence 1 shall be in accordance with the provisions of Annex 11. At the same time, the applicant will be given an overview of the work to be completed (transcript of records), which is to be completed during the doctoral period and submitted when registering for the doctoral examination. If the program involves more than one faculty, the faculty at which enrollment takes place is determined as follows. The respective thesis advisory committee decides unanimously, after hearing the doctoral candidate and taking into account the thematic focus of the dissertation project, which faculty the doctoral candidate should be assigned to. After approval by the relevant member of the Dean's Office, enrolment then takes place at this faculty; responsibility is determined by the relevant Dean's Office. If there is no unanimous agreement or if the faculty concerned raises a justified objection, the assignment is based on the faculty affiliation of the first supervisor authorized to conduct examinations. In the case of an institution within the meaning of § 3 para. 2 sentence 3, notwithstanding sentence 6, only enrolment at a faculty of mathematics and natural sciences is permitted; in the event of disagreement, notwithstanding sentence 7, the board of the institution within the meaning of § 3 para. 2 sentence 3 shall determine the assignment.

(8) The enrolment and acceptance of a doctoral candidate in a program and at a faculty must be recorded in the program's examination administration together with the date of the start of the doctorate and any ancillary provisions as well as details of the members of the Thesis Advisory Committee and entered in the Graduate School's electronic directory.

(9) Applicants should submit their application for admission to a program at least in text form to the responsible examination board. The application must be accompanied by degree certificates in accordance with paragraphs 1 and 3, any supporting documents in accordance with paragraph 2, a confirmation of supervision in accordance with paragraph 5 and the declaration in accordance with paragraph 6 in conjunction with Annex 1. The decision on
acceptance or rejection is made by the Examination Board. Further details on the application procedure and other admission requirements may be regulated in the subject-specific provisions of a program.

(10) The details of admission to doctoral degree programs are regulated in the admission regulations.

§ 5 Thesis Advisory Committee

(1) For each doctoral procedure, the responsible Examination Board shall appoint a Thesis Advisory Committee no later than two months after admission to the Graduate School, after hearing the doctoral candidate, consisting of at least three members, including at least two persons authorized to conduct examinations, including the first supervisor authorized to conduct examinations and another person with at least a doctorate; at least one of the members, including at least one of the members authorized to conduct examinations, may not be in an official relationship with one of the other two members. As a rule, two of the members authorized to examine are appointed as reviewers of the dissertation.

(2) The thesis advisory committee supervises and supports the doctoral candidate in accordance with a supervision agreement, a copy of which must be sent to the Graduate School office no later than three months after the start of the doctoral project and kept there until the doctoral procedure has been definitively completed. The doctoral candidate must report to the thesis advisory committee regularly, but at least once a year, in text form and in the form of a prompt subsequent discussion, in which all members of the thesis advisory committee should participate, on the status of the doctoral project and the academic achievements to date. The interview may be conducted in whole or in part with the support of a video and audio transmission system. The first report should be submitted six months after enrollment. The members of the thesis advisory committee confirm that the report has been submitted and the interview has taken place at least once a year by signing the transcript of records issued to the doctoral candidate upon admission to the Graduate School. The meetings of the thesis advisory committee are prepared by the doctoral candidate.

(3) If there is good cause, the responsible examination committee may, at the request of a member of the thesis advisory committee or the doctoral candidate, appoint other suitable persons as supervisors or appoint a new thesis advisory committee. An important reason is
in particular the breakdown of the relationship of trust, insofar as this is not the responsibility of the doctoral candidate. In the event of conflicts between the supervisors and the doctoral candidate, the program director or a member of the Executive Board of the Graduate School shall mediate.

§ 6 Type and scope of doctoral studies; cheating; termination for special reasons

(1) During their doctoral studies, doctoral candidates must carry out their academic research work. The preliminary topic and work plan for the research work must be agreed between the thesis advisory committee and the doctoral candidate before the start of the doctoral project. Furthermore, doctoral candidates must successfully complete coursework amounting to a total of at least 20 credits (C) in accordance with the subject-specific provisions of a program. No more than 30 C may be required.

(2) As part of the doctoral studies program, the doctoral candidate must generally provide evidence of participation in at least one course on good scientific practice within one year of admission to the doctoral program at the latest. Further details are regulated by the subject-specific provisions.

(3) Doctoral students are entitled to complete voluntary, freely selectable additional coursework in addition to the minimum coursework requirements.

(4) If, for reasons for which the doctoral candidate is not responsible, it is not possible to provide the work referred to in paragraph 1 sentence 3, or if the provision of such work would cause disproportionate hardship, the Examination Board may, at the latest upon admission to the doctoral examination, waive the requirement to provide evidence of individual achievements at the request of the doctoral candidate; the subject-specific provisions of a program may stipulate a different responsibility.

(5) Coursework completed on the basis of an agreement concluded between the University of Göttingen, the doctoral candidate and another university will be recognized without an equivalence assessment. Coursework completed at other universities or outside a university will be recognized, provided there is no significant difference to coursework completed within
the programme. ³The doctoral candidate must submit the documents required for recognition. ⁴Coursework will not be recognized if it was completed in the degree program or consecutive degree programs whose completion was the basis for admission to the doctorate and was required for the completion of this degree program or these degree programs. ⁵The university is obliged to justify any non-recognition (reversal of the burden of proof in accordance with the Lisbon Convention). ⁶The Examination Board decides on credit transfer.

(6)¹ The doctoral program generally takes three years. ²The completion time can be extended twice by six months each time by the thesis advisory committee on the basis of a justified application in text form. ³In justified exceptional cases, the processing time may be extended beyond this; the Examination Board shall decide on this after receiving the opinion of the Thesis advisory committee on the basis of a request in text form, which must be justified. ⁴A decision on an extension must be recorded in the Dean's Office of the Faculty and the Graduate School office. ⁵The subject-specific provisions of a program may deviate from sentences 2 and 3.

(7)¹ If the doctoral candidate attempts to influence the result of coursework by cheating or using unauthorized aids or by subsequently influencing an examiner (hereinafter referred to collectively as "cheating") to their own or another's advantage, the coursework in question shall be deemed to have been assessed as "failed". ²The consequences provided for in sentence 1 may also be recognized if the doctoral candidate carries unauthorized aids with him or her. ³A doctoral candidate who grossly violates the regulations may be excluded from continuing the coursework in question by the respective examiners or supervisors; in this case, the coursework in question shall be graded as "failed". ⁴In serious cases, the Examination Board may exclude the doctoral candidate from completing further examinations or coursework. ⁵In less serious cases, the imposition of a sanction may be waived. ⁶If there is a suspicion of carrying unauthorized aids, the doctoral candidate is obliged to cooperate in the clarification and to hand over the aids; in the event of refusal, the coursework in question is deemed to have been assessed as "failed". ⁷The doctoral candidate must be heard before a decision is made in accordance with sentence 4.

(8)¹ The doctoral program ends with
   a) revocation or withdrawal of admission, acceptance as a doctoral candidate or admission to a program or
   b) the termination or expiry of the doctoral candidate relationship.
Revocation, withdrawal or termination can take place if there is good cause. Good cause is generally deemed to exist if a doctoral candidate

a) proves to be permanently unsuitable despite adequate supervision, in particular if an extension of the processing time pursuant to paragraph 6 is not granted,
b) has repeatedly or significantly failed to fulfill the duties incumbent upon him or her, in particular has violated his or her reporting obligations despite repeated requests to do so,
c) has violated the regulations for safeguarding good scientific practice,
d) has unlawfully obtained admission, acceptance as a doctoral candidate or admission to a program by deceiving the university about the existence of the admission requirements, or

e) if the relationship of trust with the doctoral candidate is definitively broken and the doctoral candidate is responsible for this.

Further reasons for termination may be regulated in the subject-specific provisions of a program. Doctoral studies also end when the doctoral candidate declares that he or she is exmatriculated.

§ 7 Doctoral examination

(1) The degrees to be awarded in accordance with Section 2 (1) and (2) shall be awarded on the basis of a successful doctoral examination.

(2) The doctoral examination consists of a scientific paper (dissertation) and an oral examination (disputation).

(3) The Examination Board shall suspend the doctoral procedure if it becomes aware that proceedings are pending against the doctoral candidate due to a breach of good scientific practice or an investigation or criminal proceedings in connection with the doctorate.

(4) If the doctoral candidate attempts to influence the result of the examination by cheating, in particular by unauthorized assistance in the preparation of the dissertation, or by exerting influence on an examiner, even retrospectively, the examination results in question shall be graded as “failed”. If a doctoral candidate grossly violates the regulations, the Examination Board may decide to terminate the oral examination; in this case, the oral examination is deemed to have been assessed as “failed”. In serious cases, the Examination Board may
exclude the doctoral candidate from taking further examinations; in particular, a violation pursuant to Section 8 (1) sentence 1 letter b) is considered a serious case. In less serious cases, the imposition of a sanction may be waived. The doctoral candidate must be heard before a decision is made in accordance with sentence 3.

§ 7a Measures in the event of significant disruptions to teaching and examination operations

1 In the event of a significant disruption to teaching and examination operations lasting more than four weeks or of indefinite duration, in particular in the event of an epidemic, the Executive Board of the Graduate School or, limited to the scope of its responsibility, an Examination Board may decide the following to ensure teaching and examination operations, if necessary in deviation from the subject-specific provisions:

a) for individual or several courses, the suspension of attendance obligations or other coursework or preliminary examination work that requires attendance on university premises; in this case, the module or program coordinator may determine an appropriate substitute coursework;

b) the possibility of conducting an oral study performance, in whole or in part, by means of a suitable system by means of video and audio transmission, insofar as this is organizationally possible and reasonable;

c) the waiver of written form requirements pursuant to Sections 4 (5) and (7), 5 (2), 8 (2), 9 (1) and (2), 13 (7), 17 (5), 22 (3), 23, Annexes 1-3 and the subject-specific provisions in favor of text form;

d) the appropriate extension of a deadline in accordance with § 6 or the subject-specific provisions for the cohorts affected by the significant disruption to teaching and examination operations, taking into account the duration of the disruption and its impact on the procedure;

e) the conduct of disputations by means of a suitable system by means of video and audio transmission in accordance with 16 para. 2, also as a rule, insofar as the candidate agrees to this procedure at least in text form; the university public should be involved in such a way that interested parties are enabled to participate, e.g. in a video conference, insofar as this is technically reasonable and does not jeopardize the undisturbed conduct of the examination;
f) the possibility for students on leave of absence to participate in examinations, insofar as the leave of absence is based on the same reason as the significant disruption to teaching and examination activities;

g) the possibility for former students to participate in examinations, provided that they were enrolled in the relevant program prior to the start of the significant disruption to teaching and examination operations and their entitlement to examinations has not lapsed for other reasons; the date of enrollment must not be more than one year ago.

The Executive Board of the Graduate School, Examination Board, program and module coordinators must take into account that the purpose of the coursework to be replaced can also be achieved to the greatest possible extent by the type of coursework to be replaced. A decision in accordance with sentence 1 can be made for a program or the entire Graduate School; the doctoral candidates must be informed of this in an appropriate manner. If a piece of coursework is carried out in a form other than that provided for in the subject-specific provisions, the doctoral candidate shall declare his or her consent in text form or at the start of an oral examination, waiving any objections; if doctoral candidates do not take part in a piece of coursework carried out in a form other than that provided for in the subject-specific provisions or do not declare their consent in accordance with sentence 1 letter e) or Section 16 (2) sentence 1, any failure to meet the deadline in accordance with Section 6 or the subject-specific provisions due to this non-participation shall be deemed not to be the responsibility of the doctoral candidate.

III Examination prerequisites, requirements and procedure

§ 8 Requirements for admission to the doctoral examination

(1) Admission to the doctoral examination shall be refused if the doctoral candidate
   a) has simultaneously applied to another faculty or university or applies after admission, unless this is permitted under Section VI;
   b) has not prepared parts of the dissertation himself/herself, but has used the help of third parties in a manner contrary to examination law and scientific honesty; scientific honesty includes, among other things, strict compliance with the citation requirement, so that the adoption of third-party ideas in the dissertation is clearly marked, as well as the maintenance of strict honesty with regard to contributions by other persons;
   c) engages intermediaries for a fee for the purpose of identifying promotional opportunities;
d) pays fees or provides services equivalent to fees in connection with the doctoral examination procedure or its preparation or makes use of services that contradict the meaning and purpose of an examination procedure; or

e) fulfills conditions for which the doctoral examination could be declared invalid or the doctoral degree could be revoked.

2 Admission to the doctoral examination may be withdrawn or revoked at any time in the cases of sentence 1 letters a) and c) to e). 3 In the cases of sentence 1 letters b) to e), a new application for admission to the doctoral examination is excluded.

(2) Admission to the doctoral examination requires at least that the doctoral candidate

a) has been enrolled as a doctoral student at the Georg-August-Universität Göttingen in accordance with the statutory provisions since acceptance as a doctoral student,

b) has duly completed the training program required by the subject-specific provisions of the program and

c) has independently prepared a written scientific paper (dissertation) and confirms in writing in accordance with Annex 1 that

c a) he or she has completed the dissertation independently and without unauthorized assistance and

c b) has not otherwise applied for a corresponding doctorate and has submitted the submitted dissertation or parts thereof, unless this was permissible under Section VI.

(3) The subject-specific provisions of a program may specify further requirements for admission to the doctoral examination.

§ 9 Application for admission to the doctoral examination

(1) After completion of the dissertation, a written application for admission to the doctoral examination must be submitted to the responsible examination board.

(2) The application must be accompanied by:

a) at least three copies of the scientific treatise (dissertation) in written form, one copy in digital form in the format of a commonly used word processing program or as an unprotected (text extraction-enabled) PDF document, as well as any published writings
of the applicant that are related to the dissertation; the conformity of the digital version with the written scientific treatise must be bindingly confirmed by the doctoral candidate;

b) the academic degree to be awarded in accordance with § 2;

c) a curriculum vitae in German or English, which also provides information on the doctoral candidate's academic development;

d) the completed and signed transcript of records in accordance with the requirements of the associated program,

e) the naming of the reviewers proposed by the doctoral candidate and the other members of the examination committee in accordance with Section 11 (1) to (3) as well as a proposed date for the oral examination agreed with them; if such a proposed date is not possible, the examination committee shall decide;

f) proof of proper enrollment.

(3) After submission of the application and examination of the formal requirements, the examination board decides on admission to the doctoral examination. If all requirements are met, it opens the examination procedure and appoints the examination committee and its chair. By being admitted to the doctoral examination, the doctoral candidate acquires the right to have his or her dissertation assessed.

(4) The doctoral candidate shall receive a notification of admission in text form, in the event of rejection with information on legal remedies.

(5) Withdrawal of a doctoral application is permitted as long as a negative decision on the dissertation has not been issued or the oral examination has not begun. In the event of a lawful withdrawal, the doctoral attempt shall be deemed not to have been undertaken.

§ 10 Dissertation

(1) The focus of the dissertation must be in field of mathematics or natural science. It must meet high scientific standards, contribute to the advancement of science and be an independent achievement of the doctoral candidate. It must be a scientifically noteworthy piece of work and show that the doctoral candidate has the ability to solve scientific questions in the subject area independently and methodically and to present the findings in a standard
form for the subject. The doctoral candidate may incorporate previously published results into the dissertation; the source must be cited in the usual scientific manner.

(2) The dissertation can be in monographic form with a detailed classification of the topic in the scientific context and a sufficient discussion.

(3) Furthermore, a scientific manuscript or several scientific manuscripts for which the doctoral candidate is co-author may form part of a dissertation. In this case, a summary of the topics worked on must also be submitted, together with a detailed discussion section and a clear description of the doctoral candidate's own contribution to the manuscripts. Furthermore, one of the supervisors must confirm that these manuscripts constitute the essential part of the academic work. This may be deviated from in the subject-specific regulations of a program.

(4) The dissertation may not have been or be used in any other doctoral procedure or comparable procedure at a university in Germany or abroad, unless otherwise stipulated in these regulations.

(5) The dissertation shall be written in German or English. It shall be provided with a title page in accordance with the sample in Annex 2.

(6) A dissertation should be carried out predominantly in conjunction with an academic institution belonging to the relevant program. Exceptions require the prior approval of the responsible examination board.

(7) Further details may be regulated in the subject-specific provisions of a program.

§ 11 Examination board

(1) For each doctoral examination, the responsible examination board appoints an examination committee of at least six members, including at least two authorized examiners and, as a rule, the authorized members of the thesis advisory committee, as well as their chairperson. Reviewers may not be dependent on one another. At least one reviewer must be a member of the thesis advisory committee; at least one of the reviewers must be a member of the Georg-August-Universität Göttingen's university teaching staff.
The examination committee must be composed in such a way that the reviewers and at least one other member are authorized to examine in the program in which the doctorate is taking place. The other members of the examination committee must be authorized to examine in at least one other program of the Graduate School; authorization to examine also includes individual authorization to examine within the meaning of Section 12 para. 3.

The composition of the examination committee must ensure that the subject areas covered by the dissertation are represented.

Retired professors should not be involved in doctoral procedures as reviewers or examiners for more than three years after the end of their period of service. The Faculty Council of the faculty in which the doctoral candidate is enrolled shall decide on exceptions by a majority of its members holding a doctorate. In the case of an institution within the meaning of Section 3 (2) sentence 3, the relevant examination board shall decide by a majority of its doctoral members. Exceptions should be granted in particular if the professor continues to provide research or teaching services on an ongoing basis.

If further assessors are appointed in the course of the examination procedure, they shall become members of the examination board in accordance with the provisions of these regulations.

Abstention from voting on examination decisions is not permitted.

§ 12 Examination authorization

All academics with a doctorate may be appointed as authorized examiners for a program in the Graduate School who

1. perform tasks in research or research and teaching at a university or non-university research institution;

2. either hold a doctoral degree in a mathematics or natural sciences subject area or provide evidence of their suitability to act as an examiner by other means; in particular, evidence must be provided that in a mathematics or natural sciences subject area
   a) a habilitation or appointment procedure has been successfully completed,
b) a procedure equivalent to the habilitation procedure or the appointment procedure has been completed, or
c) at least three completed doctorates have been independently supervised and own third-party funding has been acquired;

and

3. are scientifically proven in the focus of the program.

(2) The responsibility for the appointment of an authorized examiner in accordance with paragraph 1 and for the revocation of the examination authorization lies with

a) for the doctoral programs Mathematics, Chemistry, Computer Science, Environmental Informatics, Geosciences/Geography, Biology and the doctoral programs Chemistry, Mathematical Sciences, Geoscience, Geography and Physics to the Faculty Council of the Faculty of Mathematics and Natural Sciences responsible for the respective program,
b) for all other programs, to the Executive Board of the Graduate School on the recommendation of the program director.

(3)\(^1\) Notwithstanding paragraphs 1 and 2, an examination authorization (individual examination authorization) limited to a specific doctoral procedure may be granted to a person with a doctorate for a program, insofar as their participation in the doctoral examination is necessary or advantageous. \(^2\) Responsible is

a) the Executive Board of the Graduate School for persons who do not have an examination authorization in accordance with paragraphs 1 and 2 within the scope of these regulations,
b) otherwise the Examination Board, whose decision must be communicated to the Graduate School's office without delay.

\(^3\) The Executive Board of the Graduate School may object to a decision in accordance with sentence 2 letter b) within 14 days; in this case, the Executive Board of the Graduate School shall make the final decision on the granting of the individual examination authorization.

(4) Persons authorized to conduct examinations who have left the institutions participating in GAUSS shall lose their authorization to conduct examinations after a period of three years, unless the body responsible under paragraph 2 does not confirm this.

§ 13 Assessment and acceptance or rejection of the dissertation
(1) Each reviewer shall prepare and propose a separate, independent review of the dissertation within four weeks of the submission of the dissertation:
   a) accept the dissertation,
   b) to reject the dissertation or
   c) return the dissertation for revision if he or she would otherwise recommend rejection.

(2) The examination committee shall set a reasonable deadline (cut-off deadline) for the revision. If a dissertation returned for revision is not submitted within this deadline, it shall be deemed to have been rejected. If the dissertation is submitted within the deadline, the further procedure is determined by the following paragraphs.

(3) The submitted dissertation can be checked using suitable software to determine whether it was prepared independently and without unauthorized assistance, in particular using plagiarism detection software to check for any unidentified text passages or other sources.

(4) If acceptance of the dissertation is recommended, one of the predicates
   a) summa cum laude (excellent),
   b) magna cum laude (very good)
   c) cum laude (good),
   d) rite (enough)
   to propose.

(5) A further assessor must be appointed if
   a) the reviewers' proposals for acceptance or rejection of the dissertation differ,
   b) the Examination Board considers an objection under paragraph 7 to be justified, or
   c) the examination board deems this necessary in the event of a deviation from the predicates proposed by the reviewers.

(6) A prerequisite for the award of the title "summa cum laude" is the submission of three reviews of the dissertation which suggest this, including at least one review by a foreign
academic (foreign review). An external review must be obtained if only two reviewers have been appointed to date or no external review has yet been obtained, but only if the reviewers appointed to date agree in proposing the grade "summa cum laude". The external review may be obtained at the same time as the reviews to be prepared within the examination committee at the suggestion of the thesis advisory committee if the award of "summa cum laude" appears possible. The external researcher must have a qualification in accordance with Section 12 (1) and be recognized in the subject area of the dissertation through their own research work; even if they are also authorized to examine, they do not have to be appointed as a member of the examination committee. The examination committee is responsible for obtaining the external expert opinion; the examination committee can propose suitable persons to the examination committee.

(7) The members of the doctoral program concerned who are entitled to examine the dissertation are given the opportunity to inspect the dissertation within a period of at least one week, usually within the assessment period. They may submit a written objection to the dissertation to the examination committee, stating their reasons.

(8) If all reviewers have recommended acceptance of the dissertation and there is no objection in accordance with paragraph 7, the dissertation is accepted. If all reviewers have recommended rejection of the dissertation, the dissertation is rejected and the doctoral examination is failed. In all other cases, the Examination Committee decides on the basis of all available reviews and in the presence of the spokesperson of the Examination Committee whether to accept the dissertation, return the dissertation for revision or reject the dissertation and fail the doctoral examination. The decision must be reached within three months.

(9) If the dissertation is rejected, a new application for admission to the doctoral examination is only possible once and not before one year has elapsed. A new or substantially improved dissertation must be submitted. The failed attempt must be reported. If this dissertation is also rejected, the doctoral examination is definitively failed.

(10) The decision is made at least in text form by the spokesperson of the examination committee. If the dissertation is accepted, admission to the defense shall be determined at the same time. If the dissertation is rejected for the first time, reference shall be made to the provisions on repeatability in accordance with paragraph 9; in the case of final rejection, the decision shall include information on legal remedies.
(11) Further details can be regulated in the subject-specific provisions of a program.

§ 14 File copy

At least one submitted copy of the dissertation remains with all reviews in the files of the examination administration of the associated program.

§ 15 Date of the oral examination

1 The date of the oral examination shall be set by the spokesperson of the responsible examination committee after the final decision on the acceptance of the dissertation, usually taking into account the proposal in accordance with Section 9 (2) letter e), and the candidate shall be notified at least one week in advance. 2 As a rule, the oral examination should be held no later than 6 weeks, in the case of § 13 para. 5 sentence 1 letter c) no later than 10 weeks after admission to the doctoral examination.

§ 16 Oral examination

(1) 1 The oral examination takes place as a colloquium (disputation) in German or English. 2 It is chaired by the chairperson of the examination board. 3 At least two thirds of the members of the examination committee must be present, including at least two assessors.

(2) 1 The oral defense may be conducted in whole or in part with the support of a video and audio transmission system, in particular for the participation of external members of the examination committee, provided that the candidate agrees to this procedure at least in text form. 2 Members of the examination board who participate accordingly are deemed to be present within the meaning of paragraph 1 sentence 3. 3 If more than one member of the examination board is to participate with the support of a video and audio transmission system, this requires the approval of the responsible examination board.
(3) The candidate and the members of the examination committee are invited to the oral defense by the spokesperson of the responsible examination committee, at least in text form, stating the date and location.

(4) As a rule, the disputation is open to the university public. Invitations will be posted and sent out electronically, e.g. on the internet. At the candidate's request, the university public may be excluded in whole or in part in deviation from sentences 1 and 2 if there is an important reason. The Examination Board shall decide on this. In deviation from sentence 1, guests of the candidate may also attend the disputation; this may be deviated from in the subject-specific provisions of a program.

(5) In the disputation, the candidate should demonstrate that he or she is familiar with the state of research in the field of research of the dissertation, has thorough specialist knowledge, including outside the field of research of the dissertation, and can independently think through scientific problems, present them in an argumentative manner and defend them.

(6) During the disputation, the candidate should explain the aims and results of their dissertation in a presentation lasting a maximum of 30 minutes and place them in a wider academic context, as well as answering questions following the presentation. Initially, only the members of the examination committee are entitled to ask questions. The chairperson of the examination committee will ensure that the other members of the audience can then ask questions to an appropriate extent. The candidate should also answer questions relating to the scientific environment of the dissertation as well as to subject areas and methodological questions relating to the subject area as a whole and related subject areas.

(7) The disputation lasts a minimum of 60 and a maximum of 90 minutes.

(8) Further details can be regulated in the subject-specific provisions of a program.

IV. Assessment

§ 17 Commendations and awards
Immediately following the oral examination, the examination committee shall decide in private by a three-quarters majority of the members present whether the defense has been passed. If the disputation is passed, the Examination Board shall determine an overall grade for the doctoral examination, taking into account the expert opinions received on the dissertation and the performance in the disputation. Only the grades listed in Section 13 (4) may be awarded; the Examination Board shall decide on the award of the grade "summa cum laude" in deviation from paragraph 2. Individual grades may also be awarded for the dissertation and the defense in accordance with the subject-specific provisions of a program.

The overall grade of "summa cum laude" can only be awarded if all expert reports on the dissertation agree with the proposal "summa cum laude" and the disputation is unanimously considered worthy of distinction by the members of the examination committee present. There must be at least three expert opinions on the dissertation, including the external expert opinion in accordance with Section 13 (6).

An overall grade is only shown on the doctoral certificate in the case of "summa cum laude". At the request of the doctoral candidate and always in doctoral degree programs, an examination certificate in accordance with the model in Annex 4 shall also be issued, which shows the overall grade and, if the subject-specific provisions of a program provide for this, individual grades in accordance with paragraphs 1 and 2.

Minutes of the oral examination shall be taken by a member of the examination board and signed by the members of the examination board present; an expert assessor with a doctorate may also be called in to take the minutes. The minutes must contain the grades in accordance with paragraphs 1 and 2 and must be submitted to the examination administration no later than one week before the doctoral result is announced in accordance with § 20.

Following the oral examination, the chairperson of the examination committee shall inform the candidate of the result of the doctoral examination, including the overall grade achieved and, if applicable, the individual grades achieved. In the event of a pass, he or she shall point out to the candidate that the doctoral degree may not be awarded before the doctorate has been completed. Upon request, a written certificate of passing shall be issued; this must also state that the doctoral degree may not be awarded before completion of the doctorate; upon request, the certificate shall also contain the overall grade achieved and, if applicable, the individual grades achieved.
§ 18 Failure, termination, repetition of the oral examination

(1) In the event of unsatisfactory performance in the oral examination, this will be assessed as "failed". If the candidate misses the examination date or breaks off the examination, the examination is deemed to have been failed, unless there is an important reason. The important reason must be reported to the examination board immediately, at least in text form, and must be substantiated.

In the event of withdrawal or absence due to illness, a medical certificate stating the expected duration of the illness leading to the inability to take the examination must be submitted immediately, unless the illness is obvious. If the reasons are recognized, a new examination date will be scheduled.

(2) A failed oral examination can be retaken within one year, but at the earliest after three months; the candidate must apply for the retake date to be allocated and should submit a proposed date agreed with the members of the examination committee. A second repetition is excluded; unsuccessful examinations in a comparable doctoral program at other universities will be taken into account. If the oral examination is definitively failed, the doctoral examination is definitively failed.

(3) A repeat attempt should be taken before the same examination board. If necessary, the responsible examination board shall appoint new examiners.

§ 19 Decision, objection

(1) Rejection decisions and other onerous administrative acts made in accordance with these regulations or program regulations must be justified in writing, accompanied by information on legal remedies and notified to the doctoral candidate. An appeal against these decisions may be lodged within one month of notification of the decision, insofar as the decision relates to the assessment of an examination.

(2) The objection must be made in writing or for the record.
(3) The responsible examination board shall decide on the objection in accordance with the procedure set out in paragraph 4 if the objection is not upheld.

(4) If the objection is directed against an examination-specific assessment by a specific examiner, the responsible examination board shall forward the objection to this person for review. If the examiner amends the assessment as requested, the examination board shall remedy the objection. Otherwise, it shall review the decision on the basis of the examiner’s statement, in particular as to whether
   a) the examination procedure has been carried out properly,
   b) generally applicable valuation principles have been observed,
   c) the examiner has not been guided by extraneous considerations.

The same applies if the objection is directed against the assessment by several examiners. If there is an infringement in accordance with sentence 3, a further expert opinion on the dissertation will be obtained accordingly or the oral examination will be repeated with examiners who have not previously been involved. The reassessment may not lead to a deterioration in the examination grade.

(5) If the objection is not upheld, a notice of objection will be issued. This shall be issued by the spokesperson of the examination board. The notice of objection must be justified, include information on legal remedies and be delivered.

V. After passing the doctoral examination

§ 20 Announcement of the doctoral results

1Twice a semester, a dean of the Faculties of Mathematics and Natural Sciences announces the result of the doctoral procedure to the doctoral candidates who have passed the doctoral examination in the meantime in a formal ceremony on a date set jointly for the doctoral programs of the Faculties of Mathematics and Natural Sciences. The obligation to publish the dissertation and the provisions on the completion of the doctorate must be pointed out.

§ 21 Publication of the dissertation
(1) The dissertation must be published by the doctoral candidate.

(2) When publishing, the reviewers' requirements regarding changes to the content must be taken into account. In the event of differences, the examination board shall decide. The first reviewer must approve the final version for publication by signing a revision slip (Annex 3) immediately after fulfilling the conditions. If he or she did not supervise the thesis, the examination board may appoint another person to approve it.

(3) In addition to printing as an independent publication in the publisher's bookstore in printed or electronic form, reproduction in DIN A5 format or publication on the document server of the Göttingen State and University Library (SUB) or in a comparable scientific information infrastructure is sufficient for publication.

(4) The Faculty Council of the faculty in which the student is enrolled may permit other forms of publication.

(5) The doctoral candidate must submit a number of printed versions of the publications of his or her dissertation for the respective publication form free of charge to the examination administration of the program as follows (deposit copies):

a) three copies of the book trade edition if a commercial publisher is responsible for distribution via the book trade and a minimum print run of 100 copies can be proven; or

b) proof that the dissertation has been published in a complete approved version on the document server of the SUB or in a comparable scientific information infrastructure.

If parts of the dissertation have already been published, reference is made to these in the approved version, if possible using the Digital Object Identifier system (DOI system).

(6) Proof of publication must be received within one year of passing the oral examination. If the doctoral candidate misses this deadline, all rights acquired through the examination expire. The responsible examination board may extend the submission deadline, but for no longer than a further year. This requires a reasoned application submitted by the doctoral candidate before the end of the one-year period.

(7) The publication shall be provided with a title page, the front and back of which shall be designed in accordance with the sample in Annex 2.
(8) If there is good cause, publication may initially take place at the joint request of the doctoral candidate and the first supervisor or the person responsible pursuant to paragraph 2 in such a way that only an abstract is made publicly accessible for a certain period of time, but not the complete dissertation. An important reason exists in particular if
   a) parts of the dissertation have been accepted for publication by a journal or publisher and prior publication of these parts is not permitted under the underlying contract,
   b) this is necessary to protect intellectual property, because otherwise the registration of intellectual property rights would be jeopardized, the publication depends on the consent of third parties or scientific data directly related to the dissertation is to be published in another way first.

The period according to sentence 1 ends one year after the day on which the oral examination was passed. The examination board shall decide on the existence of good cause. The application should be submitted before the date of the oral examination. A further extension may be granted once for a maximum of one further year; the Examination Board shall decide on this upon application. The mandatory copies according to paragraph 5 sentence 1 must be submitted by the end of the period according to sentences 1 and 6 at the latest.

(9) Reviewers who have rejected a dissertation shall not be named in the dissertation at their request.

§ 22 Completion of the doctorate

(1) If the doctoral candidate has fulfilled all the obligations incumbent on him or her under these regulations, in particular if he or she has submitted the mandatory copies, the relevant examination administration shall award the doctorate by issuing the doctoral certificate in accordance with the sample in Annex 5. If the certificate is in German, an "Official Translation" in English shall also be issued. If applicable, an examination certificate in accordance with § 17 para. 3 sentence 2 shall be issued in accordance with the sample in Annex 4. The date of the passed oral examination is deemed to be the date of graduation.

(2) At the same time as the doctoral certificate pursuant to paragraph 1 sentence 1, the "Official Translation" pursuant to paragraph 1 sentence 2 and, if applicable, the examination certificate pursuant to paragraph 1 sentence 3, digital images of these documents may be made available
to the doctoral candidate in text form; these shall each contain a password-protected link to retrieve a scan of the signed original document from the University's server.

(3)¹ Notwithstanding paragraph 1 sentence 1, the doctorate may be completed before the deposit copies are submitted in accordance with § 21 paragraph 5 if
   a) a publishing contract with a recognized academic publisher is submitted in place of the deposit copies and the publisher also declares in writing that printing and delivery of the deposit copies are guaranteed within a maximum period of two years from the oral examination, or another important reason in accordance with § 21 para. 8 sentence 2, and
   b) a publication has been made in accordance with Section 21 (8) sentence 1.
²In this case, completion of the doctorate is subject to fulfillment of the obligation under Section 21 (5).³ If this obligation is violated, all rights acquired through the examination expire, in particular the right to use the doctoral degree. ⁴In this case, the doctoral certificate must be returned immediately.

(4)¹ The doctoral degree may not be used before the doctoral certificate is issued. ²The title “Dr. des.” may not be used.

(5) The doctorate is completed with the award of the doctoral certificate.

§ 23 Inspection of the examination files

¹In the period between completion of the oral examination and completion of the doctorate or within four weeks after a rejection or rejection of the dissertation or after failing the oral examination, the examinee may inspect the expert reports and the examination records. ²In addition, copies of these documents can be handed over against reimbursement of expenses.

§ 24 Invalidity of the doctoral examination; withdrawal of the doctoral degree

(1) The doctoral examination may be declared invalid and the doctoral degree may be revoked,
a) if it turns out that the doctoral degree was obtained by deception, or if the requirements for admission to the doctoral examination or the awarding of the doctoral degree were wrongly assumed to have been met,
b) if it subsequently transpires that the holder of the doctoral degree has been convicted of grossly negligent or intentional breach of his or her duty to maintain academic honesty. 
   ba) was unworthy of the award of the doctoral degree or
   bb) has proven unworthy of holding a doctoral degree through his or her subsequent conduct.

(2) In the event of a final conviction for a criminal offense relating to the doctorate, the doctoral examination shall be declared invalid and the doctoral degree shall be revoked.

(3) Decisions in accordance with paragraphs 1 and 2 are made by the Faculty Council of the faculty in which the enrolment took place by a majority of its members holding a doctorate. In the event of suspected academic misconduct, the university ombuds committee shall first examine whether there is an initial suspicion of academic misconduct. The decision is made by the Dean. The decision must be sent to the person concerned.

VI Honorary doctorate and double doctorate

§ 25 Conferral of an honorary doctorate

(1) The degree of honorary doctor of natural sciences can be awarded as a rare distinction for outstanding scientific achievements or other outstanding services to the advancement of science. This requires a resolution of the Faculty Council responsible for the subject in question, which requires a majority of three quarters of the members entitled to vote and three quarters of the members with a doctorate entitled to vote, as well as the approval of the majority of the members with a doctorate of the other Faculty Councils of the mathematics and natural sciences faculties. Only members and members of the supporting faculties of the mathematics and natural sciences graduate school are entitled to submit proposals for persons to be honored.

(2) The honorary doctorate is awarded when the responsible dean presents the certificate. The certificate shall acknowledge the academic merits of the honorary doctorate recipient.
Section 24 applies accordingly to the withdrawal. The decision shall be made solely by the faculty responsible for the subject in question.

§ 26 Requirements for joint care proceedings

(1) A doctoral procedure conducted jointly with a foreign university or faculty requires that
1. an agreement has been concluded with the foreign university or faculty on the cross-border supervision of this doctorate or an individual cooperation agreement has been concluded with the foreign university or faculty to carry out a double doctorate and
2. you have been accepted as a doctoral candidate both at the University of Göttingen and at the foreign university or faculty.

(2) The dissertation may be submitted at the University of Göttingen or at the foreign university or faculty in accordance with the detailed provisions of the agreement pursuant to paragraph 1 no. 1. A dissertation that has been submitted to the foreign university or faculty and accepted or rejected there prior to the conclusion of the agreement pursuant to paragraph 1 no. 1 may not be resubmitted to the University of Göttingen. The agreement in accordance with paragraph 1 no. 1 must ensure that a dissertation submitted before the conclusion of the agreement in accordance with paragraph 1 no. 1 submitted to the University of Göttingen and accepted or rejected there cannot be resubmitted to the foreign university or faculty.

(3) During the doctoral procedure, supervision is provided by at least one authorized examiner from the University of Göttingen and one university teacher from the foreign university or faculty. The supervision is governed by the agreement referred to in paragraph 1 no. 1.

(4) If the dissertation is submitted to the University of Göttingen, Section 27 shall apply. If the dissertation is submitted at the foreign university or faculty, § 28 shall apply.

§ 27 Submission to the University of Göttingen

(1) The Dean's Office of the faculty of the University of Göttingen at which the doctoral candidate is enrolled (faculty awarding the doctorate) shall appoint an examination committee in agreement with the foreign university or faculty, in deviation from Section 11 (Determining the composition of the examination committee), which should be composed of academics from
both universities; the details of the composition shall be regulated in the agreement in accordance with Section 26 (1) No. 1. Both supervisors of the dissertation should be appointed as examiners.

(2) If the dissertation has been accepted at the University of Göttingen, it will be forwarded to the foreign university or faculty for approval of the continuation of the procedure. If the foreign university or faculty approves the continuation of the procedure, an oral examination shall take place at the doctoral faculty of the University of Göttingen in accordance with the provisions of Sections 15 to 18; in justified exceptional cases, the provisions of Sections 15 to 17 may be deviated from in accordance with the agreement pursuant to Section 26 (1) No. 1.

(3) If the dissertation has been accepted at the University of Göttingen, but the foreign university or faculty has refused to approve the continuation of the procedure, the joint procedure is terminated. The doctoral procedure is continued in accordance with the general provisions of these regulations and, if applicable, the subject-specific provisions of the program. A new examination board must be appointed for the examination in accordance with § 11 (Provisions for the appointment of the examination board).

§ 28 Submission to the foreign university or faculty

(1) If the dissertation is submitted to the foreign university or faculty, the foreign university or faculty shall decide on its acceptance or the continuation of the procedure after reviewing the dissertation. If the decision is positive, the doctoral faculty of the University of Göttingen will decide in accordance with § 13 after all necessary reviews have been submitted. The Dean shall inform the foreign university or faculty of the result. He or she will also provide the names of the examiners to be appointed to the examination committee, which is to be made up of academics from both universities. The oral examination shall take place at the foreign university or faculty. Notwithstanding sentences 2 and 3, the agreement pursuant to Section 26 (1) no. 1 may stipulate that a dissertation accepted in the procedure at the foreign university or faculty shall also be deemed to have been accepted at the doctoral faculty at the University of Göttingen, provided that at least one member of this faculty who is authorized to conduct examinations was involved in the procedure at the foreign university or faculty as an assessor and has recommended the acceptance of the dissertation.
(2) If the dissertation is rejected at the University of Göttingen, the joint procedure is terminated. The rejected dissertation may not be resubmitted to the University of Göttingen. The provisions on repeating the doctorate remain unaffected.

(3) If the foreign university or faculty has rejected the dissertation, the joint procedure is terminated. The dissertation can be submitted to the University of Göttingen. The doctoral procedure is continued in accordance with the general provisions of these regulations and, if applicable, the subject-specific provisions of the program. A new examination committee must be appointed for the examination in accordance with § 11 (Provisions for the appointment of the examination committee).

§ 29 Joint doctoral certificate

After successful completion of the doctoral procedure under joint supervision with a foreign university or faculty, a joint doctoral certificate signed by both universities will be issued, stating that this is a doctoral degree for academic achievement awarded jointly by the participating universities. If it is not possible to issue a joint doctoral certificate, the doctoral certificate of the University of Göttingen will include the addition that the doctoral degree was awarded on the basis of a joint doctoral procedure with the foreign university or faculty.

VII Final provisions

§ 30 Entry into force; transitional provisions

These regulations shall enter into force retroactively as of 01.04.2018 following their publication in the Official Notices I of the Georg-August-Universität Göttingen.

At the same time, the Doctoral Degree Regulations of the Georg-August University School of Science (GAUSS) (RerNatO) in the version published on July 4, 2012 (Official Notices I No. 21/2012 p. 1126), last amended by resolution of the Presidential Board on October 24, 2017 (Official Notices I No. 54/2017 p. 1456), shall cease to be in force.
(3)¹ Doctoral candidates who were accepted into a doctoral program within the scope of these regulations prior to their entry into force shall be examined in accordance with the provisions of these regulations. ²Notwithstanding sentence 1, they shall be examined in accordance with the provisions of the regulations as defined in paragraph 2 upon application, which must be submitted within six months of these regulations coming into force. ³Even if, upon application pursuant to sentence 2, the regulations pursuant to paragraph 2 continues to apply, this does not apply to module overviews and descriptions in the case of coursework still to be completed in the programs, unless the responsible examination board requires a different decision in order to protect the legitimate expectations of a doctoral candidate. ⁴Doctoral studies and a doctoral examination in accordance with the provisions of the regulations within the meaning of paragraph 2 will be carried out for the last time at the end of the winter semester 2021/22. ⁵Sentences 1 to 4 apply to doctoral candidates in the closed doctoral programs in Chemistry and Physics, with the proviso that the program-specific provisions of the regulations in accordance with paragraph 2 continue to apply.
Annex 1 (to § 4 para. 6)

Doctoral candidate declaration
of the Georg-August-University Göttingen

Name ........................................................................................................................................
(Last name, first name)
Address ........................................................................................................................................
(street, zip code, place of residence)

I intend to write a dissertation on the topic .................................................................
at the Georg-August-Universität Göttingen. I am being supervised by
........................................................................................................................................

I make the following declaration:

1. the opportunity for the present doctoral project has not been arranged for me commercially. In particular, I have not engaged any organization that seeks supervisors for the preparation of dissertations for a fee or that performs all or part of the duties incumbent upon me with regard to the examinations.

2. help from third parties has been used up to now and will only be used in the future to an extent that is academically justifiable and permissible under examination law. In particular, all parts of the dissertation are written by myself; I have not accepted any unauthorized external help, either free of charge or for a fee, and will continue to do so in the future.

3. the regulations for safeguarding good scientific practice at the University of Göttingen are observed by me.

4. a corresponding doctorate has not been applied for at any other university in Germany or abroad; the submitted dissertation or parts of it have not been/will not be used for another doctoral project.

I am aware that incorrect information may preclude admission to doctoral studies or may later lead to the termination of the procedure or the withdrawal of the degree obtained.

(place), (date)

(Signature)
Appendix 2 Cover page of the dissertation

Front page

(Title of the dissertation)

Dissertation
for the award of a doctorate in mathematics and natural sciences
"Doctor rerum naturalium"
of the Georg-August-University Göttingen

in the doctoral program / doctoral study course ..............
of the Georg-August University School of Science (GAUSS)

submitted by

(name)

from .............................................. (place of birth)

Göttingen, (date)
Supervision committee

(name, department/working group, institution)

(name, department/working group, institution)

(name, department/working group, institution)

Members of the examination board

Speaker: (name, department/working group, institution)

Correspondent: (name, department/working group, institution)

2nd co-referee, if applicable: (name, department/working group, institution)

Other members of the examination board:

(name, department/working group, institution)

(name, department/working group, institution)

(name, department/working group, institution)

Day of the oral examination: 

Appendix 3

Revision certificate

Name of the first reviewer / the person responsible according to § 21 para. 2 sentence 4
RerNat-O: ..................................................................................................................
Department/working group, institution
............................................................................................................................

The submission for publication of the dissertation by Ms./Mr.
..............................................................
from..............................................
titled: ....................................................

has been submitted to me. I have no objection to the publication of this dissertation in the
version submitted and certify this with my signature in accordance with § 21 para. 2 RerNat-
O.

Göttingen, (date)
________________________________________
Appendix 4 Examination certificate

Georg-August-University Göttingen
Mathematics and Natural Sciences Graduate School
- Georg-August-University School of Science (GAUSS) -

Certificate of the doctoral examination in mathematics and natural sciences
at the faculty ..............................................................

Mr./Mrs. .................................................. born on ................................ in...................................... has passed the doctoral examination in the doctoral program
....................................................................................................................................................
. in accordance with the doctoral degree regulations from
....................................................................................................................................................
with the overall rating ........................................ am............................................
passed/passed with distinction.

Achievements in doctoral studies:

<table>
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| 1. ................. | ......
| 2. ................. | ......
| 3. ................. | ......
| 4. ................. | ......
| 5. ................. | ......
| 6. ................. | ......
| 7. ................. | ......

Topic of the dissertation:
....................................................................................................................................................
....................................................................................................................................................

In accordance with the program:

Grade of the dissertation: ........................................
Grade of the disputation: ......................................
–
– Göttingen, ..............................................................
The spokesperson of the examination committee /
The dean
Appendix 5 Doctoral certificate

1. The doctoral candidate in a GAUSS program receives exactly one certificate in accordance with the following model, depending on whether the degree "Dr. rer. nat." or "Ph.D." with the addition "Division of Mathematics and Natural Sciences" was obtained, whether the grade "summa cum laude" was awarded, and whether the doctorate was awarded in one of the doctoral programs Mathematics, Geosciences/Geography, Biology, Computer Science and Environmental Informatics or one of the doctoral programs in Chemistry, Mathematical Sciences, Geoscience, Geography and Physics (Annexes 5a-5d) or in the other programs (Annexes 5e-5h) or additionally within the framework of an International Max Planck Research School (IMPRS) (Annexes 5i-5l).

2. If the degree "Dr. rer. nat." is awarded, the certificate is in German; if the degree "Ph.D." is awarded, the certificate is in English.

3. If a German-language certificate is issued, the doctoral candidate will also receive an English-language translation of the certificate ("official translation").

4. If the doctoral degree was obtained as part of a joint doctoral procedure in accordance with §§ 26 to 29, an individual certificate format shall be agreed with the foreign university or faculty in the case of § 29 sentence 1, which may deviate from the models in this Annex. In the case of § 29 sentence 2, the relevant model for the doctoral procedure in question in accordance with no. 1 shall be used for certification; the certificate shall be provided with the addition that the doctoral degree was obtained on the basis of a joint doctoral procedure with the foreign university or faculty.

5. Anyone who requests this will receive the certificate in a wording that has been adapted to avoid gender-typifying forms of address and personal pronouns.
Appendix 5a: Sample certificates (Dr. rer. nat. for the specified programs)

The Georg-August-Universität Göttingen
under the President
Professor Dr.

awards
by the Faculties of Mathematics and Natural Sciences
under the Dean of the Faculty for
Professor Dr.

Mrs/Mr

born on

the degree of Doctor of Natural Sciences (Dr.rer.nat.),
after completing the doctoral program/degree
program "Mathematics/Physics/Chemistry/Geosciences/Geography/Biology/Psychology/
Computer Science/Environmental Informatics"
through the dissertation

("Topic")
as well as by the disputation of
his/her scientific qualification.

Göttingen, (date of issue of the certificate)

(Seal of the University)

The Dean of the Faculty
Appendix 5b: Sample certificate (Dr. rer. nat.; distinction "summa cum laude" for the specified programs)

The Georg-August-Universität Göttingen
under the President
Professor Dr.

awards
by the Faculties of Mathematics and Natural Sciences
under the Dean of the Faculty for
Professor Dr.

Mrs/Mr

born on

the degree of Doctor of Natural Sciences (Dr.rer.nat.),

after completing the doctoral program/degree
program "Mathematics/Physics/Chemistry/Geosciences/Geography/Biology/Psychology/
Computer Science/Environmental Informatics"

through the dissertation

("Topic ")

as well as by the disputation of
his/her scientific qualification.

As an award for outstanding performance, the overall rating
"summa cum laude" was awarded.

Göttingen, (date of issue of the certificate)

(Seal of the University)

The Dean of the Faculty
Appendix 5c: Sample certificate (Ph.D.; in English for the specified programs)

The Georg-August-University Göttingen

awards

Ms./Mrs./Mr.

born on in

the degree Doctor of Philosophy (Ph.D.)
Division of Mathematics and Natural Sciences

under the President
Professor

through the Faculties of Mathematics and Natural Sciences
under the Dean of the Faculty of
Professor

She/He proved her/his scientific qualifications
according to the regulations of the doctoral program/degree program

"Mathematics/Physics/Chemistry/Geoscience/Geography/Biology/Psychology/
Computer Science/Environmental Informatics"

by completing her/his doctoral thesis (Dissertation)

""

and thesis defense (Disputation), dated

Göttingen, (date)

(Seal of the University)

Dean of the Faculty
The Georg-August-University Göttingen

awards

Ms./Mrs./Mr.

born on in

division of Mathematics and Natural Sciences

under the President
Professor

through the Faculties of Mathematics and Natural Sciences
under the Dean of the Faculty of
Professor

She/He proved her/his scientific qualifications
according to the regulations of the doctoral program/degree program

"Mathematics/Physics/Chemistry/Geosciences/Geography/Biology/Psychology/
Computer Science/Environmental Informatics"

by completing her/his doctoral thesis (Dissertation)

and thesis defense (Disputation), dated

In recognition of the excellent achievements of
her/his doctoral studies she/he is awarded the overall grade
"summa cum laude".

Göttingen, (date)

(Seal of the University)

Dean of the Faculty
Annex 5e: Sample certificate (Dr. rer. nat.; all other programs)

The Georg-August-Universität Göttingen
under the President
Professor Dr.

awards
by the Graduate School of Mathematics and Natural Sciences
Georg-August University School of Science (GAUSS)
under the spokesperson
Professor Dr.

Mrs./Mr.
born on

the degree of Doctor of Natural Sciences (Dr. rer. nat.),
after she/he has been awarded the degree
in the GAUSS doctoral program / doctoral study course " "
through the dissertation

("Topic")
as well as by the disputation of
his/her scientific qualification.

Göttingen, (date of issue of the certificate)

(Seal of the University)
The speaker of GAUSS
Appendix 5f: Sample certificates (Dr. rer. nat.; distinction "summa cum laude"; all other programs)

The Georg-August-Universität Göttingen
under the President
Professor Dr.

awards
by the Graduate School of Mathematics and Natural Sciences
Georg-August University School of Science (GAUSS)
under the spokesperson
Professor Dr.

Mrs/Mr

born on

the degree of Doctor of Natural Sciences (Dr. rer. nat.),

after she/he has been awarded the degree
in the GAUSS doctoral program / doctoral study course " "

through the dissertation

("Topic")

as well as by the disputation of
his/her scientific qualification.

As an award for outstanding performance, the overall rating
"summa cum laude" was awarded.

Göttingen, (date of issue of the certificate)

(Seal of the University)

The speaker of GAUSS
Appendix 5g: Sample certificate (Ph.D.; English-language; all other programs)

The Georg-August-University Göttingen

awards

Ms./Mrs./Mr.

born on in

the degree Doctor of Philosophy (Ph.D.)
Division of Mathematics and Natural Sciences

under the President
Professor

through the Georg-August University School of Science (GAUSS)
under the Dean
Professor

She/He proved her/his scientific qualifications
according to the regulations of the
doctoral program/degree program " "

by completing her/his doctoral thesis (Dissertation)

" "

and thesis defense (Disputation), dated

Göttingen, (date)

(Seal of the University)

Dean of GAUSS
The Georg-August-University Göttingen

awards

Ms./Mrs./Mr.

born on in

the degree Doctor of Philosophy (Ph.D.)
Division of Mathematics and Natural Sciences

under the President
Professor

through the Georg-August University School of Science (GAUSS)
under the Dean
Professor

She/He proved her/his scientific qualifications
according to the regulations of the
doctoral program/degree program ""

by completing her/his doctoral thesis (Dissertation)
""

and thesis defense (Disputation), dated

In recognition of the excellent achievements of
her/his doctoral studies she/he is awarded the overall grade
"summa cum laude".

Göttingen, (date)

(Seal of the University)

Dean of GAUSS
Annex 5i: Sample certificate (Dr. rer. nat. within the framework of an IMPRS)

The Georg-August-Universität Göttingen
under the President
Professor Dr.

awards
by the Graduate School of Mathematics and Natural Sciences
Georg-August University School of Science (GAUSS)
under the spokesperson
Professor Dr.

Mrs/Mr
born on

the degree of Doctor of Natural Sciences (Dr. rer. nat.),
after she/he has been awarded the degree
in the GAUSS doctoral program / doctoral study course " "
through the dissertation
("Topic")
as well as by the disputation of
his/her scientific qualification.

She/He has completed the doctorate within the
International Max Planck Research School
"IMPRS for ".

Göttingen, (date of issue of the certificate)

(Seal of the University)

Spokesperson for GAUSS

(Minerva logo)

Spokesperson of the IMPRS
Annex 5j: Sample certificate (Dr. rer. nat. within the framework of an IMPRS; grade "summa cum laude")

The Georg-August-Universität Göttingen
under the President
Professor Dr.

awards
by the Graduate School of Mathematics and Natural Sciences
Georg-August University School of Science (GAUSS)
under the spokesperson
Professor Dr.

Mrs/Mr
born on
the degree of Doctor of Natural Sciences (Dr. rer. nat.),
after she/he has been awarded the degree
in the GAUSS doctoral program / doctoral study course " "
through the dissertation
("Topic")
as well as by the disputation of
his/her scientific qualification.

As an award for outstanding performance, the overall rating "summa cum laude" was awarded.

She/He has completed the doctorate within the
International Max Planck Research School
" IMPRS for " was carried out.

Göttingen, (date of issue of the certificate)

(Seal of the University)
Spokesperson for GAUSS

(Minerva logo)
Spokesperson of the IMPRS
Annex 5k: Sample certificate (Ph.D. within the framework of an IMPRS; in English)

The Georg-August-University Göttingen

awards

Ms./Mrs./Mr.

born on in

the degree Doctor of Philosophy (Ph.D.)
Division of Mathematics and Natural Sciences

under the President
Professor

through the Georg-August University School of Science (GAUSS)
under the Dean
Professor

She/He proved her/his scientific qualifications
according to the regulations of the
doctoral program/degree program " "

by completing her/his doctoral thesis (Dissertation)
" "

and thesis defense (Disputation), dated

She/He graduated from the International Max Planck Research School
"IMPRS for "

Göttingen, (date)

(Seal of the University)

Spokesperson for GAUSS

(Minerva logo)

Spokesperson of the IMPRS
Appendix 5i: Sample certificate (Ph.D. within the framework of an IMPRS; awarded "summa cum laude"; in English)

The Georg-August-University Göttingen

awards

Ms./Mrs./Mr.

born on in

the degree Doctor of Philosophy (Ph.D.)
Division of Mathematics and Natural Sciences

under the President
Professor

through the Georg-August University School of Science (GAUSS)
under the Dean
Professor

She/He proved her/his scientific qualifications
according to the regulations of the
doctoral program/degree program " "

by completing her/his doctoral thesis (Dissertation) entitled

and thesis defense (Disputation), dated

In recognition of the excellent achievements of
her/his doctoral studies she/he is awarded the overall grade
"summa cum laude".

She/He graduated from the International Max Planck Research School
"IMPRS for "

Göttingen, (date)

(Seal of the University)

Dean of the IMPRS

(Minerva logo)

Dean of GAUSS
Appendix 6

a) Subject-specific provisions for the doctoral degree program "Mathematical Sciences"

A. Special responsibilities

An Examination Board is not formed; it is replaced by the Dean's Office. Notwithstanding § 3 Para. 2 Sentence 4, the tasks of the spokesperson of the Examination Board within the meaning of these regulations are carried out by the Dean of Studies for Mathematics.

B. Special provisions

1. the doctoral program "Mathematical Sciences" can be completed in whole or in part as part-time studies. Students must provide suitable documentation to prove that they have no more than 20 hours per week on average per semester available for research work and the performance of their other duties arising from the supervisory relationship. For every two semesters of part-time study, the deadline according to § 6 para. 6 sentence 1 is extended by one semester; this also applies if only one semester is studied part-time. Only documents issued by third parties are deemed to be documents in accordance with sentence 1; if this represents an unreasonable hardship, proof by means of documents in accordance with sentence 1 may be waived. The decision is made by the Dean's Office.

2. Notwithstanding Section 16 (1), the oral defense is generally held in English. A disputation in German is possible if students provide evidence of the required German language skills (at DSH-2 level or better).

C. Doctoral studies

As part of the doctoral program, at least 30 credits (C) must be earned by successfully completing the following modules.

1. Research programs

   P.Mat.7101 Scientific colloquia and seminars (3 C, 2 SWS)
   P.Mat.7102 Research activities at scientific colloquia and seminars (3 C, 2 SWS)

2. Study programs

   P.Mat.7201 Advanced studies in a field of research I (6 C, 4 SWS)
   P.Mat.7202 Advanced studies in a field of research II (3 C, 2 SWS)
3. Research seminars
P.Mat.7301 Accompanying seminar: Introduction to research (3 C, 2 SWS)
P.Mat.7302 Accompanying seminar: Scientific analysis of research questions (3 C, 2 SWS)
P.Mat.7303 Accompanying seminar: Documentation of mathematical issues (3 C, 2 SWS)

4. Key competencies
P.Mat.7901 Key competencies in university teaching (3 C, 2 SWS)

Module P.Mat.7901 can be replaced by another module from the overarching key competence offer of the Faculty of Mathematics and Computer Science, from the cross-faculty key competence offer of the university or from the offer of university didactics.

D. Different study programs
At the mutual suggestion of the doctoral candidate and the thesis advisory committee and without prejudice to the regulations on the recognition of academic achievements, the Dean's Office may decide that instead of the doctoral studies according to letter C, the curriculum of a relevant doctoral program (e.g. graduate college) with a total of at least 20 C must be successfully completed; proof of admission to the corresponding doctoral program must be provided immediately.

E. Module descriptions
The module directory is published separately; it is an integral part of these regulations insofar as the modules are included in the overview according to letter C (doctoral studies).

b) Subject-specific provisions for the doctoral program in mathematics

A. Special responsibilities
Notwithstanding § 3 para. 2 sentence 4, the Dean of Studies for Mathematics is responsible for doctoral matters as long as the Dean belongs to the Institute of Computer Science.

B. Doctoral studies
At least 21 credit points ("credits", abbreviated C) must be acquired, which are divided as follows:
1. Research program
Participation in at least one mathematical advanced or research seminar (3 C)
Participation in at least one subject-specific conference (e.g. annual conference of the German Mathematical Society) in the form of a lecture or poster presentation. (3 C)

2. Study program
Successful participation in at least one advanced course (e.g. intensive course) in the subject area of the dissertation (6 C)
Successful participation in two further advanced courses (at least 3 C each)

3. Key qualifications
Participation in courses for the acquisition of key competencies or tutoring in an exercise or seminar of the Faculty of Mathematics and Computer Science. (3 C minimum)
Appendix 7 Subject-specific regulations for the doctoral program "Physics"

A. Special responsibilities
An Examination Board is not formed; it is replaced by the Dean's Office.

B. Special provisions

1. Part-time study
The doctoral program "Physics" can be completed in whole or in part as part-time studies. Students must provide suitable documentation to prove that they have no more than 20 hours per week on average per semester available for research work and the performance of their other duties arising from the supervisory relationship. For every two semesters of part-time study, the deadline according to § 6 para. 6 is extended by one semester; this also applies if only one semester is studied part-time. Only documents issued by third parties are deemed to be documents in accordance with sentence 1; if this represents an unreasonable hardship, proof by means of documents in accordance with sentence 1 may be waived. The decision is made by the Dean's Office.

2. Dissertation
Notwithstanding § 10 para. 5 sentence 1, the dissertation must be written in English. Alternatively, the dissertation may be written in German, provided students can prove that they have the required German language skills (at DSH-2 level or better).

3. Form of the oral examination
Notwithstanding § 16 para. 1 sentence 1, the disputation shall take place in English. Alternatively, the disputation may be conducted in German, provided that students can provide evidence of the required German language skills (at DSH-2 level or better).

C. Doctoral studies
As part of the doctoral program, students must successfully complete the following modules for a total of 30 credits:

<table>
<thead>
<tr>
<th>Code</th>
<th>Module</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.Ph.01</td>
<td>Advisory Committee Meeting</td>
<td>4 C</td>
</tr>
<tr>
<td>P.Ph.02</td>
<td>Scientific presentation and communication</td>
<td>4 C</td>
</tr>
<tr>
<td>P.Ph.03</td>
<td>Scientific Writing</td>
<td>4 C</td>
</tr>
<tr>
<td>P.Ph.04</td>
<td>Advanced scientific qualification in theory and practice</td>
<td>3 C</td>
</tr>
<tr>
<td>P.Ph.05</td>
<td>Additional scientific qualification in theory and practice</td>
<td>3 C</td>
</tr>
<tr>
<td>P.Ph.06</td>
<td>Tutorial teaching</td>
<td>8 C</td>
</tr>
</tbody>
</table>
P.Phys.07 Key competences (4 C)

The thesis advisory committee may allow other courses to be taken instead of the modules mentioned if they essentially correspond to the modules mentioned above in terms of the skills to be acquired.

D. Module descriptions
The module directory is published separately; it is part of these regulations insofar as the modules are included in the overview according to letter C (doctoral studies).
Appendix 8
a) Subject-specific provisions for the doctoral program "Chemistry"

A. Special responsibilities

An Examination Board is not formed; it is replaced by the Dean's Office. Notwithstanding § 3 para. 2 sentence 4, the tasks of the spokesperson of the Examination Board within the meaning of these regulations are carried out by the Dean of Studies of the Faculty of Chemistry. He or she is represented by the Dean of the Faculty of Chemistry.

B. Special provisions

1. Dissertation

Dissertations in accordance with Section 10 (3) are only possible at the Faculty of Chemistry if the thesis advisory committee unanimously approves this form of dissertation. It may impose conditions, e.g. on the structure or minimum content. The approval and possible conditions must be documented in writing on the form provided for this purpose and submitted to the Dean's Office when registering for the examination and submitting the dissertation. The form also serves as proof for the supervisor that the manuscript constitutes the major part of the academic work. Doctoral students who are planning a dissertation in accordance with §10 para. 3 must obtain the necessary publication rights to the text and possible graphics from the publisher of the publication to be used at an early stage. In this context, it must also be clarified in which other form of publication the publisher agrees to a secondary use (e.g. commercial vs. non-commercial as in the case of a publication via the SUB). The SUB can be asked for advice when clarifying the legal issues with the publishers. The publisher's consent must be submitted to the Dean's Office when registering for the examination and submitting the dissertation. Passages taken from publications must be incorporated into the dissertation as continuous text and marked in accordance with good scientific practice.

2. Examination board

Notwithstanding Section 11 (1), the first reviewer of the dissertation must be appointed from among the members of the Faculty of Chemistry of the Georg-August-Universität Göttingen who are authorized to examine.

3. Processing time
Notwithstanding § 6 para. 6 sentence 2, the Supervision Committee may extend the processing
time once by 12 months on the basis of a substantiated application in text form.

C. Doctoral studies
As part of the doctoral program, students must complete a total of at least 30 credits (C) in
accordance with the following provisions.

1. Scientific competence (15 C) *)
   a. Reflecting on and presenting research
      One of the following modules comprising at least 6 C must be successfully completed:
P.Che.1001 "Reflecting on and presenting research (local)" (6 C)
P.Che.1005 "Reflecting on and presenting research (national/international 1)" (7 C)
P.Che.1006 "Reflecting on and presenting research (national/international 2)" (9 C)

   b. Specialist and methodological consolidation
      Modules totaling at least 6 C must be successfully completed. Modules (including didactic
      modules) from the Master's degree course in Chemistry and from the math and science
      faculties (excluding Psychology) from Master's and doctoral degree courses can be taken into
      account, provided they have not yet been completed as part of a Master's degree course. The
      following modules, for example, can be taken:
P.Che.1010 Chemical Crystallography (3 C / 2 SWS)
P.Che.1114 Main group organometallic chemistry (3 C / 3 SWS)
P.Che.1134 Current Topics in Inorganic Chemistry (3 C / 3 SWS)
P.Che.1135 Special topics in NMR spectroscopy (3 C / 2 SWS)
P.Che.1311 Vibrational spectroscopy and intermolecular dynamics (3 C / 3 SWS)
P.Che.1313 Electronic Spectroscopy and Reaction Dynamics (3 C / 3 SWS)
P.Che.1315 Chemical Dynamics at Surfaces (3 C / 3 SWS)
P.Che.2404 Dynamics and Simulation (3 C / 3 SWS)
P.Che.2502 Biomolecular Chemistry (3 C / 3 SWS)
M.Che.1214 NMR for structural chemistry and structural biology (3 C / 3 SWS)
M.Che.1215 NMR for Structural Chemistry and Structural Biology II (3 C / 3 SWS)
M.Che.2402 Quantum Chemistry (6 C / 5 SWS)
M.Che.2503 Biomolecular Chemistry practical course (6 C / 6 SWS)
M.Che.2603 Practical course in catalysis chemistry (6 C / 8 SWS)
M.Che.2703 Practical course in macromolecular chemistry (6 C / 8 SWS)
If the respective course is not modularized, the Dean of Studies determines the credits to be taken into account on the basis of the actual workload.

*) For chemistry-didactic doctorates, scientific competence also means subject-didactic competence.

2. Scientific teaching (9 C)
The following module comprising 9 C must be successfully completed:
P.Che.1004 Scientific teaching 9 C

3. Key competencies (6 C)
Modules totaling at least 6 C must be successfully completed. In particular, modules from the university-wide module list of key competencies, the courses offered by the University of Göttingen's didactics department and correspondingly designated courses offered by the Faculty of Chemistry can be taken. If the respective course is not modularized, the Dean of Studies determines the credits to be taken into account on the basis of the actual workload.

4. The Dean's Office may, following the opinion of the Thesis Advisory Committee, approve that other courses be taken in place of the above-mentioned modules if they essentially correspond to the above-mentioned modules with regard to the competences to be acquired.

D. Module descriptions
The module directory is published separately; it is part of these regulations insofar as the modules are included in the overview according to letter C (doctoral studies).

b) Subject-specific provisions for the doctoral degree program "Catalysis for Sustainable Synthesis" (CaSuS)

A. Special responsibilities
The tasks of the Examination Board within the meaning of these regulations are carried out by the Program Committee. It consists of four members, including three members of the group of university lecturers from the group of working group leaders involved in the degree program and one member of the group of doctoral students. The members are appointed by the respective group representatives on the Faculty Council of the Faculty of Chemistry. The term of office is two years, for the member of the group of doctoral students one year. The Program Committee elects a chairperson and a deputy chairperson from the group of professors. The
member of the group of doctoral candidates only has an advisory vote in the assessment and recognition of coursework or examinations.

B. Special provisions

1. Admission to the doctoral examination
In addition to Section 8 (1) and (2), admission to the doctoral examination requires that at least one original thesis co-authored by the doctoral candidate has been accepted for publication in a peer-reviewed journal; the Program Committee shall decide on exceptions on the basis of a written application from the doctoral candidate.

2. Form of the dissertation
Notwithstanding § 10 para. 5 sentence 1, the dissertation must be written in English.

3. Form of the oral examination
Notwithstanding Section 16 (1), the oral defense shall be held in English.

C. Doctoral studies
As part of the doctoral program, students must successfully complete a total of at least 22 credits (C) in accordance with the following provisions.

1. Compulsory modules
The following compulsory modules totaling 19 C must be successfully completed:

<table>
<thead>
<tr>
<th>Module</th>
<th>Title</th>
<th>Credits/Weekly Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.Che.1601</td>
<td>Current developments in catalysis research</td>
<td>(4 C/ 4 SWS)</td>
</tr>
<tr>
<td>P.Che.1602</td>
<td>Modern methods and practice of catalysis chemistry</td>
<td>(4 C/ 5 SWS)</td>
</tr>
<tr>
<td>P.Che.1603</td>
<td>Catalysis in a chemical context</td>
<td>(6 C/ 6 SWS)</td>
</tr>
<tr>
<td>P.Che.1604</td>
<td>Presentation and discussion of research results</td>
<td>(5 C/ 8 SWS)</td>
</tr>
</tbody>
</table>

2. Compulsory elective modules
A module from the area of key competencies worth at least 3 C must be successfully completed. One of the following modules from the range offered by the Central Institution for Languages and Key Qualifications (ZESS) is recommended; however, other modules from the ZESS range can also be taken without a separate application:
3. Voluntary participation
In addition to the modules listed under nos. 1 and 2, courses with an in-depth character are offered; participation is voluntary. Doctoral students should also take part in non-independent teaching.

4. The Thesis Advisory Committee may allow other work to be completed in place of the modules mentioned if it is essentially equivalent to the above-mentioned modules in terms of the competences to be acquired.

D. Module descriptions
The module list is published separately; it is part of these regulations insofar as the modules are included in the overview according to letter C (doctoral studies).
Appendix 9

a) Subject-specific provisions for the doctoral degree program "Geography"

A. Special provisions
In addition to §10 (3) sentence 1, the doctoral candidate must be the first author of at least one manuscript.

B. Doctoral studies
As part of the doctoral program, students must complete a total of at least 20 credits (C) in accordance with the following provisions.

1. The following two modules totaling 10 C must be successfully completed:
P.Geg.1Specialist and methodological specialization (5 C, 2 SWS)
P.Geg.2Reflecting on research - doctoral seminar (5 C, 2 SWS)

2. At least two of the following modules totaling 10 C must be successfully completed:
P.Geg.3Scientific communication (5 C)
P.Geg.4Scientific Teaching (5 C)
P.Geg.5Key qualifications (5 C, 2 SWS)
P.Geo.5Scientific Writing (5 C, 2 SWS)

The Thesis Advisory Committee may allow other courses to be taken in place of the modules listed, provided that they essentially correspond to the above-mentioned modules in terms of the skills to be acquired.

C. Module descriptions
The module directory is published separately; it is an integral part of these regulations insofar as the modules are included in the overview according to letter B (doctoral studies).
b) Subject-specific provisions for the doctoral degree program "Geoscience"

A. Special provisions
In addition to §10 (3) sentence 1, the doctoral candidate must be the first author of at least one manuscript.

B. Doctoral studies
As part of the doctoral program, students must complete a total of at least 20 credits (C) in accordance with the following provisions.

1. The following two modules totaling 10 C must be successfully completed:
   P.Geo.1 Specialist and methodological specialization (5 C, 2 SWS)
   P.Geo.3 Reflecting on research - doctoral seminar (5 C, 2 SWS)

2. At least two of the following modules totaling 10 C must be successfully completed:
   P.Geo.2 Scientific communication (5 C, 1 SWS)
   P.Geo.4 Scientific Teaching (5 C)
   P.Geo.5 Scientific Writing (5 C, 2 SWS)
   P.Geo.6 Key qualifications (5 C, 2 SWS)

The Thesis Advisory Committee may allow other courses to be taken in place of the modules listed, provided that they essentially correspond to the above-mentioned modules in terms of the skills to be acquired.

C. Module descriptions
The list of modules is published separately; it is part of these regulations insofar as the modules are included in the overview according to letter B (doctoral studies).
c) Subject-specific provisions for the doctoral program Geosciences/Geography

The admission of doctoral students to this program is suspended. In particular, the doctoral degree programs according to letters a) and b) are available to applicants.

A. Proof of performance

At least 20 credit points (C=credits) must be earned as part of the doctoral program in accordance with the following provisions. Participation in the various courses should take place after consultation with the Thesis Advisory Committee.

It is mandatory to attend at least one subject-specific conference with a presentation or poster - if possible internationally.

1. Research and study program

A total of 18 C must be acquired. Major subject and related subject areas are to be taken into account appropriately. Participation or successful participation in e.g:

   a.) within the faculty / University of Göttingen
   - Master course (credits according to examination regulations)
   - Research seminar
   - Department seminar
   - Institute colloquium
   - Special course offered by external lecturers

   b.) external
   - Workshop
   - Summer School
   - Specialist course at other institutions
   - Research seminar
   - Subject-specific conference with lecture or poster - if possible international (3 C)

If necessary, further events on the advice of the Thesis Advisory Committee.

2. Key qualifications

A total of 2 C must be acquired. Successful participation in courses at the university (e.g. at ZESS - Central Institution for Languages and Key Qualifications), the faculty or other institutions can be credited.
Appendix 10

a) Subject-specific provisions for the doctoral program Biology

Proof of performance
During the doctoral phase, at least 20 credits must be earned in accordance with the following provisions. One credit corresponds to a workload of approx. 30 hours including preparation and follow-up time.

1. Participation in colloquia and active participation in seminars (5 - 10 credits)
   Doctoral students are expected to take part in a colloquium and a seminar (e.g. departmental or institute seminar) each semester. Colloquia are weighted with 0.5 credits per semester, participation must be proven by submitting a certificate of achievement signed by a supervisor. Active participation in a seminar is weighted with 2 credits per semester; it requires the giving of a presentation and must be confirmed by the university lecturer responsible for the seminar or the first supervisor.

2. Active participation in teaching (5 - 10 credits)
   In principle, teaching must be carried out in the faculty. Individual certificates of equivalence can be issued for individual courses taught outside the faculty. In addition, the Examination Board can issue general recognition for courses regularly held in other faculties. For the supervision of students in seminars or internships, 1 credit is awarded per SWS, the supervision of lab rotations of at least 6 weeks and Bachelor's theses is weighted with 2 credits. In addition, three credits can be awarded once for the supervision of a diploma or Master's thesis. The certificates are issued by one of the supervisors.

3. Active participation in specialist conferences (max. 6 credits).
   For each conference, 3 credits are awarded for active participation (i.e. poster presentation or lecture). If several conferences are attended, the maximum value applies. The certificates are issued by one of the supervisors.

4. Other forms of acquiring key qualifications (max. 3 credits)
   No general regulations can be made for this area. If regular courses from the area of key qualifications are attended, the credits specified there are binding. In all other cases, the examination board carries out an assessment.

5. Credits must be earned in each of the areas listed under no. 1 to 3.

b) Subject-specific provisions for the doctoral degree program "Behavior and Cognition" (BeCog)
A. Special responsibilities
The tasks of the Examination Board within the meaning of these regulations are carried out by
the Program Committee, which is formed in accordance with the provisions of the regulations
on the assessment of special aptitude for the doctoral program "Behavior and Cognition" in the
currently valid version.

B. Special provisions
1. Duration of doctorate
Notwithstanding § 6 para. 6 sentence 2, in justified exceptional cases the processing time may
be extended up to four times by half a year in each case; the Program Committee shall decide
on this after receiving the opinion of the Supervision Committee on the basis of a written
application from the doctoral candidate, which must be justified in writing.

2. Form of the oral examination
By way of derogation from Section 16 (1), the disputation shall take place in English or, at the
request of the candidate to be examined, in German. The Program Committee must be
informed of a disputation in German.

3. Award of predicates
Individual predicates are always awarded for the dissertation and for the defense
(§ 17 para. 1 sentence 4) and shown separately on the examination certificate in accordance
with § 17 para. 3 sentence 2.

C. Doctoral studies
As part of the doctoral program, at least 20 credits (C) must be earned by successfully
completing the following modules:

- P.BeCog. 1 Learning and reflecting on research (4 C, 6 SWS)
- P.BeCog. 2 Faculty and methodological foundations (4 C, 6-8 SWS)
- P.BeCog. 3 Scientific teaching (4 C, 4 SWS)
- P.BeCog. 4 Scientific Communication (4 C)
- P.BeCog. 5 Key qualifications (4 C, 4-8 SWS)

D. Module descriptions
The module list is published separately; it is part of these regulations insofar as the modules
are included in the overview according to letter C (doctoral studies).
c) Subject-specific provisions for the doctoral degree program "Biological Diversity and Ecology" (Biological Diversity and Ecology)

A. Special responsibilities
The tasks of the Examination Board within the meaning of these regulations are carried out by the Program Committee, which is formed in accordance with the provisions of the regulations on the assessment of special aptitude for the doctoral degree program "Biological Diversity and Ecology" in the currently valid version.

B. Special provisions
1. Dissertation
Notwithstanding § 10 para. 5 sentence 1, the dissertation must be written in English. Justified exceptions to this rule must be requested from the Program Committee.

2. Form of the oral examination
Notwithstanding Section 16 (1) sentence 1, the oral defense shall be held in English. In justified exceptions, the disputation may also be held in German. For this purpose, the doctoral candidate to be examined shall submit a reasoned request to the Program Committee.

3. Awards and distinctions
Individual predicates are always awarded for the dissertation and for the defense (§ 17 Para. 1 Sentence 4) and shown separately on the examination certificate in accordance with § 17 Para. 3 Sentence 2.

C. Doctoral studies
As part of the doctoral program, students must successfully complete the following modules to earn a total of at least 22 ECTS credits (C):

- P.Biodiv.01 Scientific project management (3 C, 2 SWS)
- P.Biodiv.02 Advanced scientific qualification in theory and practice (6 C, 4 SWS)
- P.Biodiv.03 Scientific teaching (3 C, 2 SWS)
- P.Biodiv.04 Scientific presentation and communication (4 C)
- P.Biodiv.05 Key competences (6 C, 4 SWS)

The thesis advisory committee may allow other courses to be taken instead of the modules mentioned if they essentially correspond to the above-mentioned modules in terms of the skills to be acquired.

D. Module descriptions
The list of modules is published separately; it is part of these regulations insofar as the modules are included in the overview according to letter C (doctoral studies).
Annex 11: Subject-specific provisions for the GGNB programs

A. Responsibilities; scope of application

The Göttingen Graduate Center for Neurosciences, Biophysics and Molecular Biosciences (GGNB) is an institution within the meaning of § 3 para. 2 sentence 3. The following provisions apply to it. The Program Committee replaces the Examination Board within the meaning of the RerNatO; provisions of the RerNatO on Examination Boards apply accordingly.

The following provisions apply to the following doctoral programs of the GGNB:
- International doctoral program "Molecular Biology"
- International doctoral program "Neurosciences"
- Doctoral program "Biomolecules: Structure - Function - Dynamics"
- Doctoral program "Molecular Biology of Cells"
- Doctoral program "Genes in Development, Disease and Evolution"
- Physics of Biological and Complex Systems
- Cellular and Molecular Physiology of the Brain
- Doctoral program "Systems Neuroscience"
- Theoretical and Computational Neuroscience
- Sensory and Motor Neuroscience
- Doctoral program "Microbiology and Biochemistry"
- Emerging Infectious Diseases
- Plant Responses To Eliminate Critical Threats (PRoTECT)
- Genome Science
- Cardiovascular Science

B. Special provisions

1. Admission requirements

a. For doctoral degree programs, the regulations on the assessment of special aptitude for doctoral degree programs accepted into the Göttingen Graduate Center for Neurosciences, Biophysics and Molecular Biosciences (GGNB) or a program-specific regulation in the currently valid version shall apply.

b. In addition to § 4 para. 1 and in deviation from § 4 para. 8, the following shall apply to the other programs:
aa. Applicants whose native language is not English must have a very good knowledge of English. Very good knowledge of English must be proven by means of standardized or accredited certificates at least at level C1 or higher according to the Common European Framework of Reference for Languages. The following in particular serve as proof:

  a) UNIcert®: at least UNIcert® III certificate;
  b) NULTE certificates: at least level C1;
  c) Cambridge English Scale: at least 180 points;
  d) "International English Language Testing System" (IELTS Academic): at least band 6.5;
  e) "Test of English as a Foreign Language, internet-based test" (TOEFL iBT): at least 110 points;
  f) Global Scale of English (Pearson Academic): at least 76 points.

Applicants who have spent at least two years studying or working in an English-speaking country within the last two years prior to submitting their application for admission are exempt from the obligation to provide proof of a test.

The program committee decides on the recognition of other proof of sufficient English language skills.

bb. Further admission requirements are proof of above-average academic and examination achievements as well as proof of special aptitude in selection interviews. The benchmark for above-average academic and examination performance is, in particular, the performance of the same cohort of graduates from the applicant's previous degree program.

cc. If the application is successful, the applicant will receive a letter of admission in an online form issued by the responsible program spokesperson or a person authorized by him or her, which contains the determination of a faculty and also serves as proof of eligibility for enrolment.

2. Duration of the doctorate

The research work should be completed within three years of admission to a program with the submission of the dissertation. In justified exceptional cases, the completion period may be
extended up to twice by half a year each time; in deviation from Section 6 (6) sentences 2 and 3, the responsible program committee decides on this on the basis of an application by the doctoral candidate, which must be justified at least in text form; the responsible program committee decides on an application beyond the specified period in consultation with the GGNB Executive Board.

3. Form of the oral examination
By way of derogation from Section 16 (1) sentence 1, the disputation shall take place in English or, at the request of the candidate to be examined, in German. The Program Committee must be informed of a disputation in German.

C. Proof of performance / doctoral studies
During the doctoral phase, a total of at least 20 credits (C) must be earned. The individual doctoral programs of the GGNB are free to set the minimum amount of 20 credits at 30 credits, but not more. One credit corresponds to a workload of approx. 30 hours including preparation and follow-up time. Deviations are possible if a longer stay in a foreign laboratory or extensive field research abroad is planned. In addition to the minimum workload to be demonstrated, additional voluntary work can be undertaken by arrangement. Credits can be acquired through

1. Participation in special lectures, colloquia and seminars (at least 5 C)
A doctoral candidate must provide evidence of participation in special lectures, colloquia and/or seminars (e.g. departmental or institute seminar) amounting to at least 5 C.
   a. Participation in seminars or colloquia amounting to one semester hour earns 0.5 C. Proof of achievement must be provided in the form of a supervisor’s certificate.
   b. Active participation in a seminar (provision of a separate performance) increases the number of credit points acquired by one additional credit. A separate achievement exists if a seminar presentation is given and graded as passed. A doctoral candidate must report on their research findings at least once every two semesters as part of their seminar presentation. Proof of performance must be provided in the form of a certificate from the lecturer responsible for the seminar.

2. Participation in methods courses (at least 2 C)
During their research project, doctoral students must successfully participate in methods courses offered by the GGNB. 1 C is awarded for a 2-3 day methods course.

3. Active participation in teaching (at least 4 C or at least 8 C if enrolled at the Faculty of Physics or the Faculty of Chemistry)
a. In order to acquire teaching and supervision skills, active participation in non-independent teaching and supervision activities amounting to at least 4 C must be completed during the doctoral phase. Supervision of students in seminars or practical courses earns 1 C per 1 SWS, supervision of lab rotations of at least 6 weeks earns 2 C and participation in the supervision of a Bachelor's thesis earns 2 C. Participation in the supervision of a Master's thesis earns 3 C. Proof of achievement must be provided in the form of a supervisor's certificate.

b. In deviation from letter a., doctoral candidates who are enrolled in a doctoral degree program or doctoral program of the GGNB at the Faculty of Physics or the Faculty of Chemistry must provide proof of participation in non-independent teaching to the extent of at least 8 C in accordance with the following provisions:

aa. Credits are earned through the supervision of exercises, seminars or practicals in accordance with the workload determined before the start of the course; the determination must be documented. The completion of the work must be documented by a certificate from the teacher responsible for the course.

bb. If the minimum requirement of 8 C is fulfilled by doctoral students

i. at least 6 C must be obtained by supervising exercises (Übungen), seminars or practical courses, including at least one exercise in the Bachelor's or Master's degree program "Physics" at the Faculty of Physics, and

ii. a maximum of 2 C may be earned through the supervision of a Bachelor's, Diploma or Master's thesis.

c. In the case of an interdisciplinary orientation of the doctoral thesis, participation in teaching may, at the request of the doctoral candidate, also take place in parts at another faculty for which the doctoral candidate is not enrolled; the decision is made by the program committee on the basis of a statement by the thesis advisory committee.

4. Active participation in specialist conferences (at least 2 C)

2-3 Cs (depending on the duration of the conference) are awarded per conference for successful participation (i.e. poster presentation or lecture). The certificates are issued by one of the supervisors.
5. Acquisition of key qualifications (at least 1 C)
Depending on the duration of the course, an appropriate number of credits are awarded for successful participation in courses offered by the University or the Graduate Center for the acquisition of key skills. If modules from the area of key qualifications are attended, the credits specified there are binding. In all other cases, the responsible program committee will make an assessment.

6. Participation in a seminar on safeguarding good scientific practice
The coursework must include participation in a seminar on safeguarding good scientific practice in doctoral projects worth at least 0.5 C, which must be successfully completed within one year of admission to the GGBN at the latest.

7. Progress of the doctoral project
At the beginning of the work (after 6 months at the latest) and subsequently at intervals of no more than 12 months, a detailed report on the status of the doctoral project must be submitted to the thesis advisory committee in the form of a written report and a subsequent discussion. This must be certified by the supervisors. In addition, the doctoral candidate informs the thesis advisory committee at the meetings about the academic work already completed. The thesis advisory committee advises the doctoral candidate on the selection of courses and on active participation in seminars and specialist conferences. The meetings of the thesis advisory committee are organized by the doctoral candidate.

8. Application for admission to the doctoral examination
The application for admission to the doctoral examination pursuant to § 9 para. 2 must also be accompanied by an anonymized version of the dissertation in digital form for the examination using suitable software pursuant to § 13 para. 3.
Appendix 12: Subject-specific provisions for the Computer Science (PCS) program

A. Special responsibilities
(1) An examination board is formed for the PCS doctoral program, consisting of the Dean of Studies for Computer Science, two members of the university teaching staff who are authorized to examine in the PCS doctoral program and one doctoral candidate.
(2) The members are each appointed for two years by the respective group representatives on the Faculty Council of the Faculty of Mathematics and Computer Science, the doctoral candidate for one year; a deputy must also be appointed for each member. One member of the group of university lecturers should also be a member of the Board of the Institute of Computer Science or the Board of the Center for Applied Computer Science; these boards can submit proposals to the Faculty Council for nomination. With regard to the doctoral candidate, the program spokesperson of the doctoral candidates may submit proposals for nomination to the Faculty Council.
(3) The Examination Board elects a spokesperson and a deputy spokesperson from the group of university lecturers (including the Dean of Studies).

B. Special provisions
The PCS doctoral program can be completed in whole or in part as part-time study. For every two semesters of part-time study, the deadline according to no. 2 § 6 para. 6 sentence 1 is extended by one semester; this also applies if only one semester is studied part-time.

C. Admission requirements
Applicants must provide evidence of achievements in the following areas amounting to a total of at least 120 credits (ECTS credits):

- practical computer science (in particular operating systems, distributed systems, software technology, databases and information systems, telematics)
- theoretical computer science (in particular algorithmics, theory of logic design, complexity theory, coding and cryptology, formal logic and semantics, computer algebra, artificial intelligence) and
- technical computer science (especially knowledge of hardware).

D. Proof of performance:
At least 21 C must be acquired in accordance with the following provisions.
1. Research program
   - Regular participation in the senior or research seminar of the supervising department (3 C per own presentation)
   - Participation in at least one subject-specific conference in the form of a lecture or poster presentation (3 C per participation)

2. Study program (at least 3 C)
   Successful participation in at least one advanced course related to the dissertation (per participation the number of credits of the respective course).

3. Key qualifications (at least 9 C; of which at least 4 C for participation in non-independent teaching)
   Participation in non-independent teaching can take various forms. The options for providing teaching services are
   - Participation in the implementation of courses in the Bachelor's and Master's degree program in Computer Science in consultation with the supervisor
     - For lectures, tutorials and practical courses, 1 C per 30 hours of work, up to a maximum of 1 C per SWS of the respective lecture, tutorial or practical course
     - For seminars, 1 C per supervised topic, maximum total of 1 C per SWS of the seminar
   - Co-supervision of project work (1 C per project work)
   - Co-supervision of Bachelor theses (2 C per Bachelor thesis)
   - Co-supervision of Master's theses (3 C per Master's thesis)
   In addition, credits can be earned through participation in key competence courses. The number of credits earned depends on the credits of the respective course or on the duration of the course (1 C per 30 working hours). Possible key competence courses are
   - Summer schools in consultation with the supervisor
   - Rhetoric or similar courses in consultation with the supervisor
   - Other courses in consultation with the supervisor that serve to develop further key competencies
Annex 13: Subject-specific provisions for the Environmental Informatics Program (PEI)

The doctoral programme in Environmental Informatics at the Faculty of Mathematics and Computer Science bears the internationalized name "PhD Programme in Environmental Informatics" (hereinafter: PEI).

A. Special responsibilities
(1) An examination board is formed for the PEI doctoral program, consisting of the Dean of Studies for Computer Science, two members of the university teaching staff who are authorized to examine in the PEI doctoral program and one doctoral candidate.
(2) The members are each appointed for two years by the respective group representatives on the Faculty Council of the Faculty of Mathematics and Computer Science, the doctoral candidate for one year; a deputy must also be appointed for each member. One of the members of the group of university lecturers should also be a member of the Board of the Center for Applied Computer Science; this Board can submit proposals to the Faculty Council for nomination. With regard to the doctoral candidate, the program spokesperson of the doctoral candidates may submit proposals to the Faculty Council for nomination.
(3) The Examination Board elects a spokesperson and a deputy spokesperson from the group of university lecturers (including the Dean of Studies).

B. Special provisions
The PEI doctoral program can be completed in whole or in part as part-time studies. For every two semesters of part-time study, the deadline according to no. 2 § 6 para. 6 sentence 1 is extended by one semester; this also applies if only one semester is studied part-time.

C. Admission requirements
Applicants must have completed at least eight semesters of study in a consecutive Master’s degree program of at least 240 C or an equivalent degree in one of the following disciplines:
  a. Computer science, environmental informatics, bioinformatics, geoinformatics, medical informatics,
  Business informatics or a similar, computer science-related subject,
  b. a mathematical or scientific subject;
  c. Forestry or Agricultural Sciences or Geography, in each case with a major in Computer Science or Mathematics and Natural Sciences.
Proof must be provided of achievements in the areas of mathematics/computer science amounting to at least 30 C. The Examination Board will decide on the relevance of the previous studies to the subject after receiving an opinion from the main supervisor.

D. Supervision Committee
The thesis advisory committee consists of at least two PEI members who are authorized to conduct examinations and who are members of the group of university lecturers. One member of the thesis advisory committee must be a member of the Institute of Computer Science or have a research focus in the field of scientific computing. One member of the thesis advisory committee should have a research focus in the fields of bioinformatics, geoinformatics, computer science of ecosystems, medical informatics or business informatics. Another member of the thesis advisory committee may have a research focus in an applied subject (e.g. biology, forest sciences and forest ecology, agricultural sciences). The examination board decides on the relevance of the research focus.

E. Proof of performance
At least 21 C must be acquired in accordance with the following provisions:

1. Research and study program (at least 5 C)
   Research services can be provided in the following ways:
   (a) Participation in summer schools, workshops, conferences in the research field of the dissertation in consultation with the main supervisor (1 C each), possibly combined with own lecture or poster presentation (then 1C additional), participation in a subject-specific conference with own lecture or poster presentation is obligatory;
   (b) active participation in research seminars or colloquia in consultation with the main supervisor (2 C each)
   (c) Successful participation in special lectures in the research field of the dissertation or in methods or programming courses (per participation the number of credits of the respective course); successful participation in at least one such course is obligatory.

2. Teaching achievements (at least 4 C)
   In order to acquire teaching and supervision skills, successful participation in non-independent teaching and supervision activities in consultation with the main supervisor amounting to at least 4 C must be completed during the doctoral period. The teaching achievements should be related to computer science. Teaching achievements can be provided in the following ways:
(a) Participation in the implementation of courses of the Bachelor's and Master's degree program in consultation with the supervisor:
- for lectures, tutorials and practicals 1 C per 30 working hours, in total a maximum of 1 C per SWS of the respective course;
- for seminars 1 C per supervised topic, in total a maximum of 1 C per SWS of the seminar.
(b) Co-supervision of project work, Bachelor's and/or Master's theses (1 C per project work, 2 C per Bachelor's thesis, 3 C per Master's thesis).

3. Acquisition of key competencies (at least 3 C)
The number of credits earned depends on the credits of the respective course or on the duration of the course (1 C per 30 working hours). Possible key competence courses are:
(a) Courses with topics outside the research field of the dissertation, which serve to train key skills, in consultation with the supervisor,
(b) Language or rhetoric courses or courses for scientific writing in consultation with the supervisor,
(c) Summer schools outside the research field of the dissertation in consultation with the supervisor,
(d) Events for professional or management qualification, e.g. industry excursions, in consultation with the supervisor.