

DISCLAIMER: Please note that the English translation is provided for information purposes only. The English text is not legally binding. Only the original German document has legal validity. The official language at TU Dresden is German. German jurisdiction applies.

Technische Universität Dresden
Faculty of Physics

Examination Regulations for the Bachelor's degree program Physics

as of July 22, 2020
(translated version)

On the basis of § 34 para. 1 sentence 1 of the Act on the Autonomy of Institutions of Higher Education in the Free State of Saxony in the version published on January 15, 2013 (SächsGVBl. p. 3), Technische Universität Dresden issues the following Examination Regulations as statutes.

Table of contents

Part 1: General regulations

- § 1 Standard period of study
- § 2 Examination structure
- § 3 Deadlines and dates
- § 4 General admission requirements and admission procedures
- § 5 Types of examined assessments
- § 6 Written examinations
- § 7 Term papers
- § 8 Oral examinations
- § 9 Complex assessments
- § 10 Portfolios
- § 11 Scientific-practical assessments
- § 12 Language examinations
- § 13 Electronic examinations
- § 14 Assessment of examined assessments, calculation and weighting of grades, publication of examination results
- § 15 Non-appearance/Non-submission, withdrawal, cheating, violation of rules and regulations
- § 16 Passing and failing
- § 17 Repeating module examinations
- § 18 Recognition of study achievements and examined assessments, periods of study, and qualifications obtained outside a university
- § 19 Examination Committee
- § 20 Examiners and assessors
- § 21 Purpose of the Bachelor's examination
- § 22 Purpose, issuance, submission, assessment and re-submission of the Bachelor's thesis and the colloquium
- § 23 Examination certificate and Bachelor's degree certificate
- § 24 Invalidity of the Bachelor's examination
- § 25 Access to examination documents

Part 2: Subject-specific regulations

- § 26 Duration, structure and scope of the degree program
- § 27 Subject-specific requirements for the Bachelor's examination
- § 28 Subject, nature and scope of the Bachelor's examination
- § 29 Time permitted for the Bachelor's thesis and duration of the colloquium
- § 30 Bachelor's degree

Part 3: Final regulations

- § 31 Entry into force, publication and interim arrangements

Part 1: General regulations

§ 1

Standard period of study

The standard period of study for the Bachelor's degree program in Physics includes on-site attendance, independent study, supervised practice periods and the Bachelor's examination.

§ 2

Examination structure

The Bachelor's examination consists of module examinations as well as the Bachelor's thesis and the colloquium. A module is concluded by a module examination, which consists of at least one examined assessment. Examined assessments are accomplished throughout the program.

§ 3

Deadlines and dates

(1) The Bachelor's examination shall be taken within the standard period of study. A Bachelor's examination that has not been taken within four semesters following the standard period of study will be considered as failed. A failed Bachelor's examination can be repeated once within one year. Following the expiration of this deadline, it is deemed as failed again. A second, and in the cases of § 17 para. 3, also a third repeat examination is only possible the next time it is held. Subsequently, the Bachelor's examination is deemed to be irrevocably failed.

(2) Module examinations shall be taken by the end of the semester stated in the study schedule.

(3) Technische Universität Dresden, through its study regulations and courses offered, ensures that study achievements and examined assessments as well as the Bachelor's thesis and the colloquium can be completed within the specified periods of time. Students will be informed in good time about the nature and the number of the required study achievements and examined assessments as well as about the respective deadline; the same holds true for the issuing and submitting of the Bachelor's thesis and the date of the colloquium. For each module examination, students will also be informed about the respective opportunity to repeat the examination.

(4) During maternity leave, deadlines do not apply and the leave is not counted towards current deadlines. For regulations regarding parental leave, students are referred to § 12 para. 2 of the Enrollment Regulations at Technische Universität Dresden.

§ 4

General admission requirements and admission procedures

(1) Students can only be admitted to the Bachelor's examination according to § 2 sentence 1 if

1. they are enrolled in the Bachelor's program Physics at Technische Universität Dresden, and
2. have proven the subject-specific requirements (§ 27), and
3. have made a declaration regarding para. 4 no. 3 either in writing or recorded in a data processing system.

(2) In order to submit examined assessments, students must register. Later withdrawal is possible without the obligation to provide a reason. Procedures and the deadline for registration and

withdrawal are specified by the Examination Committee and published at the beginning of each semester and announced by the Faculty in the usual manner. The same applies to preliminary academic work.

(3) Admission is granted

1. to a module examination on the basis of the first registration for an examined assessment of this very module examination, and
2. to the Bachelor's thesis on the basis of a student's request for issuance of the topic, or if § 22 para. 3 sentence 5 applies, upon issue of the topic, and
3. to the colloquium based on the assessment of the Bachelor's thesis with a grade of at least "pass" (4.0).

(4) Admission is denied if

1. the requirements stated in para. 1 or the rules of procedure stated in para. 2 are not met, or
2. the documents are incomplete, or
3. the student has already irrevocably failed an examination required for the completion of the Bachelor's degree program Physics.

(5) Admissions decisions will be taken by the Examination Committee. The announcement thereof may be public. § 19 para. 4 remains unaffected.

§ 5

Types of examined assessments

(1) Examined assessments are

1. written examinations (§ 6),
2. term papers (§ 7),
3. oral examinations (§ 8),
4. complex assessments (§ 9),
5. portfolios (§ 10)
6. scientific-practical assessments (§ 11), and
7. language examinations (§ 12).

Graded academic work or individual tasks can be carried out according to the Multiple-Choice (MC) method if this is accounted for in the MC Regulations applicable to the course of study. If examined assessments or individual tasks are carried out according to sentence 2, the student should demonstrate the knowledge and skills detailed in the qualification objective of the module.

(2) Studies and examinations must be completed in German or, if indicated by the module descriptions, in English. If, according to the module description, a module primarily serves to acquire foreign language qualifications, studies and examined assessments may also have to be completed in the respective foreign language if required by the assignment.

(3) If a student proves that, due to extended or permanent physical impairment or chronic illness, he or she is unable to accomplish an examined assessment or parts thereof in the stipulated form, the chair of the Examination Committee will approve, upon request, an extension or an equivalent manner for the examined assessment (compensation for disadvantages). For this purpose, the student may be required to submit a medical certificate and, in cases of doubt, an official medical certificate by a public health officer (*Amtsarzt*). The same applies to preliminary academic work.

(4) If a student proves that, due to taking care of their own children until they reach the age of 14 or caring for close relatives, examinations cannot be taken as stipulated, the chair of the Examination Committee, upon request, will approve an equivalent method for taking the examination. Close relatives are children, parents, grandparents, spouses, and civil partners. The chair of the Examination Committee, in consultation with the responsible examiner, will decide, at their due discretion, on how the examination is to be taken. The chair of the Examination Committee shall decide on an appropriate measure to compensate for the disadvantages. Suitable measures to compensate for disadvantages are, for example, extended time allowance, extended breaks, use of other media, use of other examination rooms within the university or another examination date. The same applies to preliminary academic work.

§ 6

Written examinations

(1) Written examinations are taken on-site and produce a “physical result” (*gegenständlich*), e.g. written piece of work.

(2) In written examinations, students prove that they are able to solve tasks and analyze topics drawing on the required knowledge and using the standard methods of the degree program with time constraints and with limited resources.

(3) The duration of the written examinations is specified in the module descriptions and shall be no less than 60 minutes and shall not exceed 360 minutes.

§ 7

Term papers

(1) Term papers are completed as non-attendance learning assignments, and produce a “physical result” (*gegenständlich*), e.g. written piece of work.

(2) Term papers are intended to demonstrate the student's competence in dealing with selected issues on the basis of specialist literature and other sources within a limited period of time as well as to verify that fundamental techniques of scientific work can be applied. This includes the ability to work in a team, if required by the task at hand. Where indicated in the module descriptions, term papers also include the demonstration of the ability to coherently present and discuss aspects of the work at hand orally in accordance with the respective assignment (combined term paper).

(3) The time required for term papers is specified in each case in the module descriptions and must not exceed 300 hours. Derived from this, the deadline for submission is to be determined as part of the respective assignment.

(4) For oral individual assessments of combined term papers, § 8 para. 5 shall apply accordingly.

(5) If the term paper consists of teamwork, the individual contributions must be clearly identifiable and assessable and must meet the requirements set out in para. 2.

§ 8

Oral examinations

(1) Oral examinations are taken on-site and do not produce a “physical result” (*nicht gegenständlich*). The focus is on what the student expresses.

(2) Oral examinations serve to provide the direct demonstration of linguistic and communicative competencies, in particular in the form of conversation, lecturing, presentation or discussion, of the specialist knowledge corresponding to the level of study and of the understanding of the contexts of the examined field; they serve in particular to present scientific content. The respective task determines which of the skills are the focus of the examination.

(3) Oral examinations are conducted as group examinations with up to five persons or as individual examinations as specified in the module descriptions.

(4) The duration of the oral examinations is specified in the module descriptions and shall be no less than 10 minutes and shall not exceed 75 minutes per student.

(5) Oral examinations shall be taken in the presence of at least two examiners (colleague examination) or one examiner and one expert assessor (§ 20). The main points and results of the oral examination shall be recorded in a protocol.

(6) Oral examinations may be conducted with or without the public being admitted. For public oral examinations, listeners may be admitted if the facilities allow for it, unless one of the examiners objects. For oral examinations which are not open to the public, the Examination Committee in agreement with the examiners (in case of a colleague examination) or with the examiner (if there is only one examiner) may only admit a student who wishes to take the same examination at a later examination date (than the examined student) as a listener upon application by the student and if the facilities allow for it, unless the examined student objects. Procedures and the deadline for the application are specified by the Examination Committee and published in the usual manner. The module descriptions stipulate whether the oral examination is public or non-public. The deliberation and announcement of the examination results always take place without an audience.

§ 9

Complex assessments

(1) Complex assessments can comprise on-site assessments and off-site assessments and can include written or other individual assessments involving a “physical result” (*gegenständlich*) as well as oral or other individual assessments not involving any “physical result” (*nicht gegenständlich*).

(2) Complex assessments serve to demonstrate the student's ability to develop, implement, and present concepts. The student shall demonstrate the competence to define goals for an overarching task and to develop solutions. This includes the ability to work in a team, if required by the task at hand.

(3) The time required for complex assessments is specified in each case in the module descriptions and must not exceed 450 hours. Derived from this, the deadline for the submission of individual assessments and the duration of individual assessments are to be determined as part of the respective assignment.

(4) For oral or other individual assessments not involving any “physical result”, § 8 para. 5 shall apply accordingly.

(5) If the complex assessments consists of teamwork, the individual contributions must be clearly identifiable and assessable and must meet the requirements set out in para. 2.

§ 10 Portfolios

(1) Portfolios can comprise on-site and off-site assessments, and produce a “physical result” (*gegenständlich*), e.g. written piece of work.

(2) Portfolios serve to demonstrate, by means of a compilation of similar or disparate individual assessments, the student's ability to place the aspects of professional, scientific activity that are specified by the respective task in an overarching context. This includes the ability to work in a team, if required by the task at hand.

(3) The time required for the portfolios is specified in each case in the module descriptions and must not exceed 300 hours. Derived from this, the deadline for the submission of individual assessments, the duration of individual assessments, and the deadline for the submission of the complete portfolio are to be determined as part of the respective assignment.

(4) If the portfolio consists of teamwork, the individual contributions must be clearly identifiable and assessable and must meet the requirements set out in para. 2.

§ 11 Scientific-practical assessments

(1) Scientific-practical assessments are taken on-site and do not produce a “physical result” (*nicht gegenständlich*). The focus is on the actions of the student.

(2) Scientific-practical assessments serve to demonstrate the ability to perform tasks in accordance with the requirements of the discipline.

(3) The duration of scientific-practical assessments is specified in the module descriptions and shall be no less than 15 minutes and shall not exceed 45 minutes.

(4) § 8 para. 5 shall apply accordingly.

§ 12 Language examinations

(1) Language examinations are taken on-site and can include individual assessments involving a “physical result” (*gegenständlich*), e.g. a written assessment, as well as oral or other individual assessments not involving any “physical result” (*nicht gegenständlich*).

(2) Language examinations serve to demonstrate practical language skills.

(3) The duration of the language examinations is specified in the module descriptions and shall be no less than 15 minutes and shall not exceed 240 minutes. The ratio of written or other assessments involving a “physical result” and oral individual assessments is to be determined as part of the respective assignment.

(4) For oral or other individual assessments not involving any “physical result”, § 8 para. 5 shall apply accordingly.

§ 13

Electronic examinations

(1) In principle, the examinations according to § 6 to § 12 can also be conducted, evaluated and assessed using digital technologies. Only those digital technologies may be used that correspond to the generally recognized state of the art at the time of use. Data protection regulations must be adhered to.

(2) Prior to an examination that uses digital technologies, two examiners in consultation with the Examination Committee must determine the suitability of these technologies with regard to the intended examination tasks and the conduct of the electronic examination. The examination using digital technologies will be announced in the usual manner by the beginning of the registration period.

(3) The authenticity of the student and the integrity of the examination results must be ensured. For this purpose, the examination results in the form of electronic data must be clearly identified and be unmistakably and permanently assigned to the student's name. It must be ensured that the electronic data for evaluation and verifiability remains unchanged and complete.

(4) An automatically generated assessment of an examination shall be reviewed by an examiner at the request of the examined student.

§ 14

Assessment of examined assessments, calculation and weighting of grades, publication of examination results

(1) The grade of an individual examined assessment is decided by the responsible examiner. In case of a colleague examination, the examiners jointly decide on the grade. The following grades shall be used:

1 = very good	= a very good performance;
2 = good	= a performance considerably exceeding average requirements;
3 = satisfactory	= a performance that meets average requirements;
4 = pass	= a performance that meets the requirements despite some inadequacies;
5 = fail	= a performance that does not meet the requirements because of grave inadequacies.

For a more differentiated assessment, individual grades can be raised or lowered by 0.3 to obtain intermediate values; whereby the grades 0.7, 4.3, 4.7 and 5.3 are excluded. An individual examined assessment is solely assessed as “passed” or “failed” (ungraded examined assessment) if the relevant module description provides an exception for this. Ungraded examined assessments that are assessed as “passed” do not enter into further grade calculations; ungraded examined assessments assessed as “failed” receive the “fail” (5.0). They are then included in further grade calculations.

(2) Written examinations that students are required to pass in order to continue their studies shall be marked by two examiners as a general rule. However, in the case of the final repeat examination, two examiners are compulsory; in the case of oral examinations, oral or other individual

assessments not involving any “physical result”, or scientific-practical assessments, § 8 para. 5 shall apply.

(3) The grade of an examined assessment corresponds to the assessment of the examiner or, in the case of para. 1 sentence 2, the joint assessment of the examiners. In all other cases, the grade of an examined assessment corresponds to the average of the individual evaluations in the case of an evaluation by several examiners or, in the case of an evaluation according to para. 1 sentence 5, to the matching individual evaluations; if the individual evaluations do not match, § 22 para. 9 sentences 1 and 2 shall apply accordingly. If a grade or a module grade, overall grade, final grade or, if applicable, combined area grade (*Bereichsnote*) or study stage grade is calculated as the average of several individual evaluations according to para. 1 or of grades, module grades or the final grade, only the first decimal point is taken into account; all other decimals are omitted without rounding.

(4) The module grade is calculated as the average of the individual examination grades which may be weighted as specified in the module descriptions. On the basis of the averages, the module grades are:

1.5 and better	=	very good
1.6 to 2.5	=	good
2.6 to 3.5	=	satisfactory
3.6 to 4.0	=	pass
4.1 and worse	=	fail.

(5) Module examinations that solely consist of an ungraded examined assessment are assessed as “passed” or “failed” in accordance with the grading of the examined assessment (ungraded module examinations). Ungraded module examinations do not enter into further grade calculations.

(6) For the compulsory field Experimental Physics, Theoretical Physics, Mathematics, Physical Lab Courses and Computational Physics as well as for the elective compulsory field, one combined area grade (*Bereichsnote*) is formed respectively. The combined area grade of the compulsory field of Experimental Physics comprises the unweighted module grades according to § 28 para. 2 no. 1, the combined area grade of the compulsory field of Theoretical Physics comprises the unweighted module grades according to § 28 para. 2 no. 2, the combined area grade of the compulsory field of Mathematics comprises the unweighted module grades according to § 28 para. 2 no. 3, and the combined area grade of the compulsory field of Physical Lab Courses and Computational Physics comprises the unweighted module grades according to § 28 para. 2 no. 4. In the compulsory fields of Experimental Physics and Theoretical Physics, students have the option to choose one of the six module grades to not be included in the combined area grade. In order to do so, students must submit a declaration to the Examination Office specifying the module in question. For the formation of the combined area grades, para. 3 sentence 3 and para. 4 sentence 2 apply accordingly.

(7) For the Bachelor’s examination, an overall grade is calculated. For the overall grade of the Bachelor’s examination, the combined area grade of the compulsory field Experimental Physics is weighted with 25%, the combined area grade of the compulsory field Theoretical Physics with 25%, the combined area grade of the compulsory field Mathematics with 15%, the compulsory field Physical Lab Courses and Computational Physics with 20%, the elective compulsory field with 5% and the final grade of the Bachelor’s thesis with 10%. The final grade of the Bachelor’s thesis is composed of the grade of the Bachelor’s thesis with fivefold weight and the grade of the colloquium with single weight. For the formation of the overall grade, para. 3 sentence 3 and para. 4 sentence 2 apply accordingly.

(8) The result of an oral examination will be announced to the student directly after the oral examination. The time for assessing all other examinations shall not exceed four weeks; in the case of written examinations with more than 300 participants, the time for assessing shall not exceed eight weeks. Information on the results of these examinations shall be provided in the usual manner.

(9) In order for the examiner to review the assessment of an examination that has not yet become final, a reconsideration of the assessment decision (remonstration) can be requested. For this purpose, the student must submit a request to the examiner and make specific assessment objections. Taking into account the assessment objections raised, the examiner is obliged to review their assessment of the examination and change it if necessary. A downgrading of the examination result is excluded on principle. If the examiner confirms their original assessment, the student will be informed of this in writing or electronically. If the examiner changes their original assessment, para. 8 sentence 3 shall apply. This does not affect the right to appeal against the examination decision for the module examination in question. The reconsideration process shall be documented in the examination file. The reconsideration process can also take place for the first time during the formal appeal procedure or a subsequent legal action against the examination decision of the corresponding module examination. In this case, in deviation from sentence 2, 1st half-sentence, it is initiated ex officio by the chairperson of the Examination Committee.

§ 15

Non-appearance/Non-submission, withdrawal, cheating, violation of rules and regulations

(1) An examined assessment is deemed to be "fail" (5.0) or "failed" if a student fails to attend or withdraws from a compulsory examination without due justification. The same shall apply when an examined assessment is not completed within the specified period of time.

(2) The given reason for non-appearance, non-submission, or withdrawal shall be immediately communicated and justified in writing to the Examination Office. In case of illness, the student normally shall provide a doctor's note and, in cases of doubt, a note from a public health officer (*Amtsarzt*). With regard to deadlines for the first entry into examinations, re-taking of examinations, reasons for non-appearance at examinations and the adherence to submission periods, the illness of a child in need of care who is mainly cared for by the student shall be equivalent to the illness of the student themselves. If the reason is accepted, a new date is set. In this case, already existing examination results shall be considered. Acceptance of the withdrawal or the reason for non-appearance or non-submission is subject to the decision of the Examination Committee.

(3) If a student attempts to manipulate the result of the examined assessment by cheating, e.g. by bringing or using illicit aids, the examination concerned is deemed to be assessed as "fail" (5.0) upon detection by the Examination Committee. Ungraded examinations shall be assessed as "failed" accordingly. A student who is disrupting the normal proceedings of an examination may be excluded from continuing the examination by the respective examiner or proctor; in this case, the examination is given the grade "fail" (5.0) or assessed as "failed". In serious cases, the Examination Committee may exclude the student from taking further examinations.

(4) If, during an examination, a student has cheated and this is only detected after the publication of the result, the Examination Committee may change the result of the examination to the grade "fail" (5.0) or assess it as "failed" and subsequently change the module grade according to § 14 para. 4. If the requirements for taking a module examination have not been met and the student was not at fault, this irregularity is rectified by passing the module examination. If the student intentionally and unduly obtained admission to an examination, the Examination Committee may

assess the module examination as “fail” (5.0) or “failed”. In serious cases, the Examination Committee may exclude the student from taking further examinations.

(5) Para. 1 to 4 shall apply accordingly to preliminary academic work, the Bachelor’s thesis, and the colloquium.

(6) If the student declares in writing to the Examination Office that they wish to waive the completion of an examination, this examination will be considered “fail” (5.0) or “failed” in the respective examination attempt. The waiver is irrevocable and presupposes admission pursuant to § 4.

§ 16 Passing and failing

(1) In order to pass a module examination, the module grade needs to be at least “pass” (4.0) or the ungraded module examination needs to be assessed as “passed”. If the module examination is passed, the credit points specified for the module in the module descriptions are awarded.

(2) The Bachelor's examination is passed if the module examinations and the Bachelor’s thesis as well as the colloquium have been passed. The Bachelor’s thesis and the colloquium are passed, if they have been assessed as at least “pass” (4.0).

(3) A module examination is failed if the module grade is below “pass” (4.0) or if the ungraded module is assessed as “failed”. The Bachelor’s thesis and the colloquium are failed, if they have not been assessed as at least “pass” (4.0).

(4) A module examination is irrevocably failed if it has not been assessed as at least “pass” (4.0) or if the ungraded module examination is assessed as “failed” and cannot be re-taken. The Bachelor’s thesis and the colloquium are irrevocably failed if they have not been assessed as at least “pass” (4.0) and if they cannot be re-submitted/re-taken.

(5) The Bachelor’s examination is failed or irrevocably failed if one of the module examinations, the Bachelor’s thesis or the colloquium have been failed or irrevocably failed. § 3 para. 1 remains unaffected. If a module examination is irrevocably failed in the elective compulsory field, the irrevocable failure of the Bachelor’s examination is only declared according to § 19 para. 4 if, within one month after the publication of the module examination results, the student does not change their module or if a change of the module is no longer possible pursuant to § 6 para. 2 sentence 4 of the study regulations. If a student has irrevocably failed the Bachelor's examination, the student loses the right to take examinations for all parts of the Bachelor's examination according to § 2 sentence 1.

(6) If a student has failed a module examination, the Bachelor’s thesis or the colloquium, the student is informed as to whether, when and to what extent they can re-take or re-submit it.

(7) If a student failed the Bachelor's examination, upon request and upon submission of the relevant proof and the certificate of de-registration (withdrawal from the student registry), the student is provided with a certificate listing the completed examined assessments including the results, as well as those that have not been completed (if this is relevant) showing that the Bachelor's examination has not been passed.

§ 17

Repeating module examinations

(1) Failed module examinations can be repeated once within one year following the first examination attempt. This period of time begins with the announcement of the first failed attempt of the module examination. Following the expiration of this deadline, the examination is deemed to be failed again.

(2) An examination can only be repeated a second time the next time it is held. After that, the module examination is deemed to have been irrevocably failed. Another repeat examination is not permissible.

(3) In deviation from para. 2 and in accordance with § 28 para. 2 nos. 1 and 2, the module examinations of the modules of the compulsory fields of Experimental Physics and Theoretical Physics may be repeated a third time the next time they are held if the second repeat examination has not been passed. The module examination is only deemed to have been irrevocably failed following this attempt. Another repeat examination is not permissible.

(4) Repeating a failed module examination that consists of several parts entails only those examined assessments that were not assessed as at least "pass" (4.0) or "passed". When repeating a failed module examination that includes one or more elective examined assessments, students are not bound to the previous selection of an examined assessment not graded with at least "pass" (4.0) or with "passed".

(5) Failed attempts at the module examination in the same or in other degree programs are taken into account.

§ 18

Recognition of study achievements and examined assessments, periods of study, and qualifications obtained outside a university

(1) Study achievements and examined assessments accomplished at a different university are recognized upon request of the student if there are no substantial differences in the acquired skills. Further agreements between Technische Universität Dresden, the German Rectors' Conference, the Standing Conference of the Ministers of Education and Cultural Affairs, as well as agreements ratified by the Federal Republic of Germany shall be observed, if applicable.

(2) Qualifications obtained outside an institution of higher education are recognized upon request of the student if they are deemed to be equivalent. Qualifications are equivalent if their contents, scope and requirements are fundamentally similar to parts of the Bachelor's program Physics at Technische Universität Dresden. The qualification comparison shall not be schematic, instead it should be considered and assessed in its entirety. Qualifications acquired outside of a university can substitute for a maximum of 50% of the degree program.

(3) Study achievements and examined assessments in the same degree program accomplished in the Federal Republic of Germany are transferred ex officio.

(4) Study achievements and examined assessments accomplished at a different university can be recognized despite substantial differences if, when assessed as a whole, their contents and qualification objectives are equivalent to the intent and purpose of the modules included in this degree program, and they are thus structurally equivalent. The degree certificate shows the assessments that were actually accomplished.

(5) If study achievements and examined assessments are recognized or transferred according to para. 1, 3 or 4, or if qualifications obtained outside a university are recognized according to para. 2, the respective study periods are ex officio recognized as well. If the grading systems are comparable, grades are transferred and enter into further grading calculations. If the grading systems cannot be compared, a note "passed" is added and they do not enter into further grading calculations. Recognition is marked as such in the degree certificate.

(6) Recognition is decided by the Examination Committee. The student needs to provide the required documents. After submission, the recognition procedure must not exceed two months. If recognition is denied, § 19 para. 4 sentence 1 shall apply.

§ 19 Examination Committee

(1) An Examination Committee for the degree program is established that will conduct and organize examinations and take on the tasks assigned in the Examination Regulations. The Examination Committee consists of four lecturers, one research associate, and two students. With the exception of the students, the term of office shall be three years. The term of office of the student members shall be one year.

(2) The chairperson, the deputy chairperson as well as the members and their deputies are appointed by the Faculty Board, Scientific Council, or School Committee of the body managing the degree program, or the Faculty Boards, Scientific Councils or School Committees of the bodies managing the degree program; the student members and their deputies are appointed upon proposal of the Faculty Student Council. Both the chairperson and the deputy chairperson must be university lecturers.

(3) The Examination Committee ensures that the stipulations of the Examination Regulations are adhered to. The Committee reports on a regular basis to the body or bodies managing the degree program as well as to the faculties, centers or Schools that are involved in the teaching for the degree program on the development of examination and study periods including the actual time spent on the final thesis, as well as about the distribution of the module and overall grades. The Examination Committee makes suggestions to reform the examination regulations and the study regulations.

(4) Decisions that adversely affect students must be announced to them in writing or electronically, including a justification and information about legal appeal options. As the appeal authority, the Examination Committee decides on appeals within a reasonable period of time, and communicates its decisions concerning the appeal.

(5) The chairperson normally manages the Examination Committee. The Examination Committee may also delegate individual tasks to the chairperson for independent processing and decision-making if the student members agree; a resolution must be passed to this effect. This does not apply to decisions pursuant to para. 4 sentence 2. If any or all of the members of the Examination Committee are reappointed, any previous delegation shall expire.

(6) The Examination Committee can allow guests without voting rights to attend its meetings. The members of the Examination Committee are entitled to attend any examination and the colloquium.

(7) The members of the Examination Committee and their deputies must abide by the duty of official confidentiality. The chairperson shall oblige any members who are not public service staff to maintain official confidentiality. The same applies to guests.

(8) The Examination Office assigned as responsible organizes the examinations and manages the examination files.

§ 20

Examiners and assessors

(1) The Examination Committee appoints the examiners from individuals who are authorized to be examiners under Saxon State Law. The respective examiner appoints the assessors, who must be experts in the field; they should have at least the degree that is sought by the examination.

(2) The student may suggest the examiners for their Bachelor's thesis, the oral examination, and the colloquium. This suggestion does not bear any entitlement.

(3) For examiners and assessors, § 19 para. 7 shall apply accordingly.

(4) The names of the examiners should be made known to the student in good time.

§ 21

Purpose of the Bachelor's examination

Passing the Bachelor's examination concludes the degree program and qualifies the student for professional work. It ensures that students have an overview of the professional contexts, are able to apply academic methods and findings, and have acquired the in-depth knowledge required for entering the world of work.

§ 22

Purpose, issuance, submission, assessment and re-submission of the Bachelor's thesis and the colloquium

(1) The purpose of the Bachelor's thesis is to prove that the student is able to analyze issues of the degree program through independent work and within a given period of time, using academic methods.

(2) The Bachelor's thesis can be supervised by a university lecturer or another individual who is authorized to examine according to the Act on the Autonomy of Institutions of Higher Education in the Free State of Saxony, provided that they are working at the Faculty of Physics Science of Technische Universität Dresden. If an extramural person authorized to be an examiner is to supervise the Bachelor's thesis, the chairperson of the Examination Committee must approve such supervision.

(3) The Examination Committee issues the topic of the Bachelor's thesis. The topic and date of issuance shall be documented. Students are allowed to suggest a topic. Upon the request of the student, the Examination Committee issues the topic of the Bachelor's thesis in a timely manner. The Examination Committee issues the topic ex officio at the latest at the beginning of the semester that follows the completion of the last module examination.

(4) The topic can be changed only once within two months of being issued. In case of re-submission of the Bachelor's thesis, changing the topic is only permitted if the student did not use this option previously. If a student has changed their topic, they are immediately issued a new topic in accordance with para. 3 sentences 1 to 3.

(5) The Bachelor's thesis may also be produced as a group thesis if the individual contribution to be assessed as the student's Bachelor's thesis is clearly distinguishable and assessable due to the indication of sections, page numbers or other objective criteria that allow a clear delimitation, and if this contribution fulfills the requirements pursuant to para. 1.

(6) Two typed and bound copies of the Bachelor's thesis written in German shall be submitted to the Examination Office before the deadline, as well as a digital copy on a suitable storage device; the date of submission shall be documented. Upon submission, the student must declare in writing that they have written the thesis - or, in the case of a group thesis, the appropriately marked share of the paper - independently and has not used any sources or aids other than those indicated. In suitable cases, the Bachelor's thesis can be completed in English if the supervisor agrees.

(7) The Bachelor's thesis must be marked by two examiners separately according to § 14 para. 1 sentences 3 and 4. The supervisor of the Bachelor's thesis shall be one of the examiners. The time for assessing the thesis shall not exceed four weeks.

(8) The grade for the Bachelor's thesis is calculated as the average of the individual grades given by the two examiners. If the two individual grades given by the examiners differ by more than two grades, the average is only valid if both examiners agree on this. If this is not the case, the Examination Committee arranges for the thesis to be marked by an additional examiner. In this case, the grade of the Bachelor's thesis is calculated as the average of the three individual grades. § 14 para. 3 sentence 3 shall apply accordingly.

(9) If one of the examiners has assessed the Bachelor's thesis as at least "pass" (4.0) and the other examiner as "fail" (5.0), the Examination Committee arranges for the thesis to be marked by an additional examiner. The additional examiner then decides whether the Bachelor's thesis is passed or failed. If the thesis is then deemed to be passed, the grade of the Bachelor's thesis is calculated as the average of the individual grades given in favor of pass, in the opposite case in favor of fail. § 14 para. 3 sentence 3 shall apply accordingly.

(10) A failed Bachelor's thesis can be re-submitted once within a one-year period. Following the expiration of this deadline, it is deemed as failed again. A second re-submission is only possible at the next available examination date, following that date it is deemed to be irrevocably failed. Any further re-submission or a re-submission after already having passed the Bachelor's thesis is not permitted.

(11) The student must elucidate their Bachelor's thesis to the supervisor of the thesis as the examiner and to an assessor in a public colloquium. The colloquium is intended to demonstrate that the student is able to coherently present the results of the Bachelor's thesis and to discuss them with expert knowledge. Additional examiners may be called in. Para. 10 as well as § 8 para. 5 sentence 2, § 14 para. 1 sentences 1 to 4 and § 14 para. 7 sentence 1 shall apply accordingly.

§ 23

Examination certificate and Bachelor's degree certificate

(1) Upon passing the Bachelor's examination, students receive an examination certificate without undue delay, if possible within four weeks. The Bachelor's examination certificate shall consist

of the module results according to § 28 para. 1 and the respective credit points and where applicable an indication of the recognized achievements and results, of the topic of the Bachelor's thesis, its grade and supervisor, as well as of the overall grade pursuant to § 14 para. 7. The results of the individual examined assessments are shown on a supplement to the examination certificate. Upon request of the student, the certificate also shows the results of additional modules and the study time spent on the completion of the Bachelor's examination; and the supplement also includes the results of the examined assessments in the additional modules.

(2) Concurrent with receiving the Bachelor's examination certificate, students shall receive the Bachelor's degree certificate with the date identical to that of the examination certificate. It certifies that the Bachelor's degree has been awarded. The Bachelor's degree certificate is signed by the chairperson of the Examination Committee and bears the handwritten or electronic signature of the Rector, alongside the seal of Technische Universität Dresden. Additionally, students are provided with an English translation of both the degree certificate and the examination certificate.

(3) The examination certificate bears the date of completion of the last part of the examination according to § 16 para. 2. It is signed by the chairperson of the Examination Committee and bears the faculty seal of Technische Universität Dresden.

(4) Technische Universität Dresden issues a Diploma Supplement (DS) in accordance with the Diploma Supplement model of the European Union/Council of Europe/UNESCO. For information on the German higher education system (DS para. 8), the text agreed upon by the Conference of the Ministers of Education and Cultural Affairs and the German Rector's Conference shall be used as amended.

§ 24

Invalidity of the Bachelor's examination

(1) If a student has cheated in an examined assessment and if this cheating is only discovered after the examination certificate has been issued, the results of the examined assessment can be amended according to § 15 para. 4 sentence 1. If applicable, the Examination Committee may declare the grade of the module examination as "fail" (5.0) and the Bachelor's examination as "failed". The same applies to ungraded module examinations, the Bachelor's thesis, and the colloquium.

(2) If the requirements for taking a module examination had not been met and this had not been discovered prior to the issuance of the examination certificate and the student was not at fault, this irregularity is rectified by passing the module examination. If the student intentionally and unduly obtained admission to an examination, the Examination Committee may assess the module examination as "fail" (5.0) the Bachelor's examination "failed". The same applies to ungraded module examinations, the Bachelor's thesis, and the colloquium.

(3) Prior to a decision, the student must be given the opportunity to make a statement.

(4) The incorrect examination certificate and its translation shall be retracted by the chairperson of the Examination Committee and replaced by a new one, if applicable. If the Bachelor's examination has been declared "failed" due to cheating, the Bachelor's degree certificate, any translations, and the Diploma Supplement must be retracted together with the now invalid examination certificate. Following a period of 5 years since the date of the examination certificate, a decision according to para. 1 and para. 2 sentences 2 or 3 is no longer permissible.

§ 25

Access to examination documents

Within one year after completion of the examinations, the student will be granted access to their written examination papers, the related expert opinions and the examination protocols within a reasonable period of time upon request.

Part 2: Subject-specific regulations

§ 26

Duration, structure and scope of the degree program

- (1) The standard period of study according to § 1 is six semesters.
- (2) The program is divided into modules and is concluded with the Bachelor's examination.
- (3) By passing the Bachelor's examination, a total of 180 credit points are awarded for modules, the Bachelor's thesis, and the colloquium.

§ 27

Subject-specific requirements for the Bachelor's examination

- (1) For the module examinations, study achievements may be required as preliminary graded work. Their number, type and design must be regulated in the module descriptions, and the number of repeat attempts may be limited as well. Prior to the topic of the Bachelor's thesis being issued, students must have earned at least 107 credit points. The Bachelor's thesis must have been assessed with a grade of at least "pass" (4.0) prior to the colloquium.
- (2) Subject-specific requirements that would be fulfilled by a waiver pursuant to § 15 para. 6 shall be deemed to have been fulfilled if the Examination Committee agrees to this upon application by the student.

§ 28

Subject, nature and scope of the Bachelor's examination

- (1) The Bachelor's examination comprises all module examinations of the compulsory field and those of the selected modules of the elective compulsory field as well as the Bachelor's thesis and the colloquium.
- (2) Modules of the compulsory field are
 1. in the compulsory field Experimental Physics
 - a) Experimental Physics I - Mechanics, Heat
 - b) Experimental Physics II - Electromagnetism, Optics
 - c) Experimental physics III - Waves and Quanta
 - d) Atomic and Molecular Physics
 - e) Solid-State Physics
 - f) Particle and Nuclear Physics

2. in the compulsory field of Theoretical Physics
 - a) Mathematical Methods in Physics
 - b) Theoretical Mechanics
 - c) Theoretical Electrodynamics
 - d) Quantum Theory I - Basic Concepts
 - e) Thermodynamics and Statistical Physics
 - f) Quantum Theory II - Advanced Concepts
3. in the compulsory field of Mathematics
 - a) Linear Algebra
 - b) Analysis - Basic Concepts
 - c) Analysis - Advanced Concepts
 - d) Advanced Analysis for Physicists
4. in the compulsory field Physical Lab Courses and Computational Physics
 - a) Introductory Lab Course and Basic Lab Course I - Mechanics and Heat
 - b) Basic Lab Course II - Electromagnetism, Optics
 - c) Basic Lab Course III - Structure of Matter
 - d) Advanced Lab Course
 - e) Computational Physics
5. in the compulsory field Qualifications
 - a) Advanced Specialization Course Physics
 - b) General Qualifications.

(3) Modules of the elective compulsory field are

1. Non-Physics Elective Module Chemistry
 2. Non-Physics Elective Module Electronics
 3. Non-Physics Elective Module Computer Science
 4. Non-Physics Elective Module Philosophy.
- one of which must be chosen.

(4) The required examined assessments in the modules and their type and structure are specified in the module descriptions. The subject matter of the examined assessment consists of the contents and skills acquired in the module, if not stated otherwise in the module descriptions.

(5) Students can take examinations in modules other than those stipulated in para. 1 (additional modules). Optionally, these module examinations can be selected from the full range of modules offered at Technische Universität Dresden or a cooperating institute of higher education after consultation with the person conducting or examining the module. They do not enter into the calculations of a student's workload nor of the overall grade.

§ 29

Time permitted for the Bachelor's thesis and duration of the colloquium

(1) Students have 12 weeks to complete their Bachelor's thesis, and 10 credit points are awarded for it. The supervisor shall limit the topic, tasks, and scope of the Bachelor's thesis so that the deadline for the submission of the Bachelor's thesis can be realistically met. In specific cases and upon justified request by the student, the Examination Committee may extend the period by up to a maximum of three weeks, the number of credit points awarded remains unaffected.

(2) The colloquium shall run for 30 minutes. Two credit points are awarded.

§ 30
Bachelor's degree

If the Bachelor's examination is passed, the "Bachelor of Science" degree (abbr. B.Sc.) is awarded.

Part 3: Final regulations

§ 31
Entry into force, publication and interim arrangements

(1) These Examination Regulations shall enter into force on the day following their publication in the Official Announcements of TU Dresden.

(2) They apply to all students newly enrolled in the Bachelor's degree program in Physics in the 2020/2021 winter semester or later.

(3) For students who enrolled earlier than in the 2020/2021 winter semester, the version of the Examination Regulations for the Bachelor's degree program in Physics that has been valid for them up until the amendment continues to apply unless they declare their acceptance of the amendment in writing. The form and deadline of this declaration are specified by the Examination Committee and announced by the Faculty in the usual manner. Switching to the new regulations is possible at the earliest on October 1, 2020.

(4) From the 2023/2024 winter semester, these Examination Regulations apply to all students enrolled in the Bachelor's degree program in Physics.

Issued based on the resolution of the Faculty Board of the Faculty of Physics as of November 27, 2019, and the approval of the University Executive Board as of February 18, 2020.

Dresden, July 22, 2020

The Rector
of Technische Universität Dresden

Signed

Prof. Dr.-Ing. Antonio M. Hurtado
Vice-Rector for University Development