

**General Provisions of the Examination Regulations
for Master's Degree Programs at the
Faculty of Computer Science, Electrical Engineering and Mathematics at
Paderborn University**

Paderborn University has issued the following regulations based on section 2 (4) and section 64 (1) of the “Gesetz über die Hochschulen des Landes Nordrhein-Westfalen (Hochschulgesetz - HG)” of 16 September 2014 (GV.NRW. p. 547), last amended by Article 1 of the Act of 5 December 2023 (GV. NRW. p. 1278):

This is a translation of the “Allgemeine Bestimmungen für die Masterstudiengänge der Fakultät für Elektrotechnik, Informatik und Mathematik an der Universität Paderborn”. Only the German original version of these general provisions shall be legally binding, the English translation serves convenience purposes only.

Table of Contents

I General regulations	3
Section 1 Scope of application	3
Section 2 Aims and purpose of the programme, language regulations	3
Section 3 Academic degree.....	3
Section 4 Start of studies	4
Section 5 Admission requirements	4
Section 6 Standard period of study, and the scope, structure and components of the programme.....	5
Section 7 Modules.....	6
Section 8 Transfer of credits.....	6
II Examination organisation	8
Section 9 Examination Committee	8
Section 10 Examiners and observers.....	9
III Examinations.....	10
Section 11 Master's examination, completing modules.....	10
Section 12 Prerequisites for participation and admissions procedure	10
Section 13 Application for admission to and registration for examinations	11
Section 14 Examination assessments in modules	11
Section 15 Assessments in modules.....	11
Section 16 Evaluating study achievements in modules and forming grades	14
Section 17 Master's thesis	15
Section 18 Acceptance and evaluation of the master's thesis	17
Section 19 Further concluding achievements.....	18
Section 20 Additional achievements.....	18
Section 21 Evaluation of the master's examination and calculation of the overall grade	18
Section 22 Retaking examination assessments	19
Section 23 Cancellation of registration, non-attendance, withdrawal, cheating, breach of regulations, protection regulations and students with family responsibilities.....	19
Section 24 Successful completion of the degree programme, final failure	22
Section 25 Certificate, transcript of records, diploma supplement.....	22
Section 26 Master's degree certificate	23
Section 27 Access to the examination files	23
IV Final provisions	24
Section 28 Invalidity of the master's examination.....	24
Section 29 Revocation of the master's degree	24
Section 30 Transitional provisions, entry into force and publication	24

I General regulations

Section 1 Scope of application

- (1) Master's degree programs of the Faculty of Computer Science, Electrical Engineering and Mathematics at Paderborn University can be partly regulated by these general provisions.
- (2) These general provisions apply in conjunction with the applicable version of the special provisions of the individual degree programme (special provisions). The special provisions deviate from, complement and give further details on the regulations of the general provisions. The general and special provisions taken together form the examination regulations for that degree programme (examination regulations).

Section 2 Aims and purpose of the programme, language regulations

- (1) The master's examination is a second degree qualifying the holder professionally. The examination determines, in addition to the general study objectives of section 58 HG, a candidate's capacity for academic work, understanding and application of basic principles and key research findings in the subject studied, and practical professional skills. After obtaining their master's degree, a student is able to independently undertake academic work and, in accordance with the relevant doctoral degree regulations, provides the opportunity for doctoral studies in the subject studied and neighbouring fields. The profile of the individual degree programme and the skills to be acquired within it are specified in the special provisions.
- (2) Within the degree programme, students must complete modules in which the acquisition of key skills is an integral part.
- (3) The special provisions contain regulations on the teaching and examination language.

Section 3 Academic degree

If the master's degree is successfully completed, the faculty or faculties responsible for the degree programme award the academic degree "Master of Science" (M.Sc.). The special provisions of the individual degree programme may stipulate that the faculty or faculties responsible for the degree programme instead award the degree "Master of Arts" (M.A.).

This is a translation of the "Allgemeine Bestimmungen für die Masterstudiengänge der Fakultät für Elektrotechnik, Informatik und Mathematik an der Universität Paderborn". Only the German original version of these general provisions shall be legally binding, the English translation serves convenience purposes only.

Section 4

Start of studies

The programme can be started in either the winter or summer semester.

Section 5

Admission requirements

- (1) An applicant can only be enrolled if they fulfil all the following
1. they
hold a higher education entrance qualification certificate (general or subject-restricted for the relevant subject);
hold the entrance qualification certificate for universities of applied sciences, in accordance with a statutory regulation;
hold a certificate recognized as equivalent by law or by the competent state authority;
fulfil the requirements for persons qualified in vocational training;
or fulfil the requirements of the
“Bildungsausländerhochschulzugangsverordnung”.
 2. they hold an academic degree fulfilling the following:
 - a) It must be a first professionally qualifying university degree with a standard period of study of at least six semesters from Paderborn University or a state or state-recognized university or a state or state-recognized professional academy (Berufsakademie). Degrees from a foreign state or state-recognized university qualify for access, provided that there is no significant difference to a degree from Paderborn University (in accordance with sentence 1 in terms of the skills acquired. For foreign educational qualifications, the equivalence agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany and the German Rectors' Conference or corresponding statutory regulations must be taken into account. Insofar as agreements and conventions on equivalence in the higher education sector (equivalence agreements) between the Federal Republic of Germany and other countries benefit students from foreign countries differently from sentence 2, the provisions of the equivalence agreements shall take precedence. In addition, the Central Office for Foreign Education should be consulted if there is any doubt about the existence or non-existence of significant differences. The Examination Committee determines the fulfilment of the requirement in accordance with sentence 2.
 - b) The special provisions lists further requirements for the degree. The Examination Committee determines the fulfilment of the requirements. Should, for degree programs without restricted admission, competencies or

This is a translation of the “Allgemeine Bestimmungen für die Masterstudiengänge der Fakultät für Elektrotechnik, Informatik und Mathematik an der Universität Paderborn”. Only the German original version of these general provisions shall be legally binding, the English translation serves convenience purposes only.

components be missing, enrolment may be granted on the condition that the courses and examinations are made up through appropriate studies and proven by passing the associated examinations by the time of registration for the master's thesis. The Examination Committee makes this decision, and determines the type and scope of the courses and examinations on the basis of the previously obtained degree. The missing courses to be made up may not exceed 30 credit points. The courses and examinations should be completed in the first semester of the master's degree programme.

3. if they did not acquire their admission requirements at a German-speaking institution, they have sufficient knowledge of the German language. Unless otherwise stipulated in the special provisions for the individual degree programme, proof of language proficiency is required for unrestricted admission or enrolment in all degree programmes. The version of "Ordnung für die Deutsche Sprachprüfung für den Hochschulzugang an der Universität Paderborn" in force gives further stipulations.
- (2) The special provisions of the individual degree programme may specify further admission requirements.
- (3) The conditions under which enrolment is to be refused or can be refused are set out in the current enrolment regulations of Paderborn University. In the event that the applicant has finally failed an examination required by the examination regulations in the previous degree programme at a higher education institution within the scope of the Basic Law, and the previous degree programme has a considerable similarity in terms of content to the master's degree programme for which enrolment is sought, enrolment will be refused if the definitively failed examination has a considerable similarity in terms of content to an examination of the desired master's degree programme and the examination is mandatory in the desired master's degree programme. The Examination Committee determines whether the content is significantly similar.

Section 6

Standard period of study, and the scope, structure and components of the programme

- (1) The standard period of study is four semesters including the master's examination. This corresponds to a total workload of 3,600 hours.
- (2) The master's degree programme covers modules with a total of 120 credit points. A credit point, below also CP, corresponds to one ECTS credit in accordance with the European Credit Transfer System. A CP corresponds to an average workload of 30 hours. A semester generally comprises 30 CP and thus a workload of 900 hours.
- (3) For examination assessments and study achievements, it is to be shown that the learning outcomes and competences of the module or module component have

been obtained. Qualified participation is deemed to have taken place if the student's performance demonstrates that a more than superficial engagement with the subject matter of the assignment has taken place.

- (4) The structure of the degree programme, the modules to be completed, the study achievements and examination assessments to be completed, and qualified participation criteria are set out in the special provisions of the individual degree programme.

Section 7 Modules

- (1) The programme is modularised. Modularisation is the grouping of subject areas into thematically and chronologically bounded, self-contained units with assigned credit points. Modules can be comprised of one or more courses and generally have a scope of at least 5 CP. They are generally designed so that they can be completed in one or two semesters. The master's thesis is incorporated as an examination assessment in a module (concluding module). Special regulations for the master's thesis are made at the relevant point of these general provisions or the special provisions.
- (2) Generally, modules consist of compulsory and/or compulsory elective courses. The compulsory elective courses can be selected from the course catalogue. It is necessary to enrol to take part in a module. A module may have admission requirements. The special provisions for the individual degree programme contain further regulations on admission requirements.
- (3) A compulsory elective module is selected if the student has registered for the module examination and it is no longer possible to withdraw from the examination.

Section 8 Transfer of credits

- (1) Study achievements that have been obtained in other degree programs or in degree programmes at other state or state-recognised universities, at state or state-recognised professional academies (Berufsakademie), or in degree programmes at foreign state or state-recognised universities will be recognised upon application, provided that there is no significant difference in the competences acquired compared to the study achievements that are being replaced. This is not a schematic comparison, but an overall consideration with regard to the purpose of transfer for continuing studies and taking examinations. Sentences 1 and 2 apply accordingly to the recognition of study achievements in state-recognised distance learning courses or in distance learning units developed by the state of North Rhine-Westphalia in conjunction with the other states and the federal government.

- (2) For the recognition of study achievements at foreign universities, the equivalence agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany and the German Rectors' Conference and agreements within the framework of university partnerships must be observed. Insofar as agreements and conventions on equivalence in the higher education sector (equivalence agreements) between the Federal Republic of Germany and other countries benefit students from foreign countries differently from sentence 1, the provisions of the equivalence agreements shall take precedence. In addition, the Central Office for Foreign Education can be consulted if there is any doubt about the existence or non-existence of significant differences.
- (3) At the student's request, the Examination Committee assigns the student a study semester on the basis of credit transfers in accordance with paragraph 1.
- (4) Applicants who are entitled to commence their studies on the basis of a placement test in accordance with section 49 (12) HG are to have the knowledge and skills demonstrated in the placement test recognised. The findings given in the placement test certificate are binding for the Examination Committee.
- (5) Upon application, other knowledge and qualifications may be recognised by the Examination Committee on the basis of documents submitted, if this knowledge and these qualifications are equivalent in content and level to the study achievements they are intended to replace.
- (6) The Examination Committee is responsible for the transfer of credit in accordance with paragraphs 1 and 5. The relevant subject representatives must be consulted prior to determining whether there are significant differences or is equivalence. If recognition is withheld, grounds should be given.
- (7) The application for recognition is to be made by the end of the first semester of the master's degree programme involved at the latest, insofar as the study achievements were obtained before enrolment. This deadline also applies for recognition of other knowledge and qualifications. The special provisions of the individual degree programme may provide for different regulations.
- (8) The person making the application must submit the necessary information in the form determined by the Examination Committee (in particular the knowledge and abilities gained via the study achievements and the examination results). The Examination Committee must decide on applications in accordance with paragraph 1 within ten weeks of the complete submission of all information relevant to the decision.
- (9) Recognition of study achievements is noted in the certificate. Where study achievements are recognised, if the grading systems are comparable, the grade is to be adopted, where necessary after conversion, and included in the grade calculation. If no grade is available or if the grading systems are not comparable, the grade "passed" is to be recorded.

- (10) Study achievements can only be recognised once. This also applies for other knowledge and qualifications.

II Examination organisation

Section 9 Examination Committee

- (1) The faculty board or boards responsible for the degree programme set up an Examination Committee for the individual degree programme. It is responsible in particular for
- organising examinations and monitoring their implementation,
 - ensuring compliance with the examination regulations and observing the procedural rules adopted for the carrying out of examinations,
 - deciding on appeals against decisions made in examination processes,
 - preparing an annual report on the examinations to the faculty board or boards,
 - any other tasks expressly assigned by these regulations and by the special provisions.
- For subject-specific decisions (for example recognition of study achievements), the Examination Committee secures the expertise of subject representatives. Specific tasks are assigned to the chairperson of the Examination Committee by these regulations and, where necessary, by the special provisions. In addition, the Examination Committee can, upon application by one of its members, decide to invite guests to advise the Examination Committee and for the purposes of cross-divisional coordination. These guests are not present during the adoption of resolutions. The Examination Committee may delegate the handling of matters that are not of fundamental importance to the chairperson. This does not apply to decisions on appeals or reports to the faculty board or boards. The chairperson informs the Examination Committee of the decisions made by them alone. The Examination Committee and the chairperson of the Examination Committee are supported by the Central Examinations Office.
- (2) The Examination Committee consist of the chairperson, the deputy chairperson and five further members. The stakeholder groups make suggestions for appointments to the Examination Committee. These are then elected by the representatives of these groups on the faculty board or boards: the chairperson, the deputy chairperson and two further members from the group of junior professor and professors; one member from the group of academic staff; and two members from the group of students. Deputies are elected similarly for each member of the Examination Committee (with the exception of the chairperson and the deputy chairperson). For the representatives of the junior professor and professors, and

the academic staff, the term of office is set at two years starting on 1 October of the year of election until 30 September two years later. For the student representatives, the term of office starts on 1 October of the year of election and ends on 30 September the following year. Members can be reelected. The rules on gender equity in accordance with section 11c HG are to be observed.

- (3) The Examination Committee is a “Behörde” (agency) within the meaning of administrative procedural law.
- (4) The Examination Committee is quorate if at least one other member with voting rights is present in addition to the chairperson or deputy chairperson and two other junior professor and professors. The Examination Committee adopts resolutions by simple majority. When a vote is tied, the chairperson has the casting vote. The student members of the Examination Committee have only an advisory vote in pedagogical and academic decisions, in particular in the assessment or recognition of achievements.
- (5) The Examination Committee is summoned by the chairperson. The committee must be summoned if at least three members demand it.
- (6) The Examination Committee's meeting are not public. The members of the Examination Committee and their deputies, examiners, and observers are bound to official confidentiality. Insofar as they are not employed in the public sector, they are to be bound to confidentiality by the chairperson of the Examination Committee.
- (7) The members of the Examination Committee have the right to attend examinations.
- (8) For degree programs for which more than one faculty is responsible, the special provisions can modify the regulations given in paragraph 2 sentences 1 to 3 on the number, composition and election procedures, and those given in paragraph 4 sentence 1 on quorum.

Section 10

Examiners and observers

- (1) The chairperson of the Examination Committee appoints the examiners and observers. Examiners are all independent members of the teaching staff of the courses in which examinations can be taken in accordance with the curriculum and the module descriptions. The group of examiners can be extended within the framework of section 65 HG. Anyone who has passed at least the relevant master's examination or a comparable examination may be appointed as an observer.
- (2) The examiners act independently in their role as examiners.
- (3) A candidate may propose examiners for the master's thesis and - if there are several examiners to choose from - for oral examinations. The proposal should be taken into account where possible. There is no legal entitlement.
- (4) The Examination Committee ensures that the candidate knows the name of the examiner in good time, generally four weeks before the examination but with a

minimum of two weeks before. An announcement in the university's campus management system is sufficient.

III Examinations

Section 11

Master's examination, completing modules

- (1) The master's examination consists of the examination assessments of the modules to be completed in accordance with the special provisions.
- (2) Credit points can only be awarded if the module is successfully completed. A module is generally completed by passing a module examination and demonstrating qualified participation as provided for. The module examination generally consists of an examination taken at the end of the module (final module examination).

The module examination can, however, also take place during the module (in particular at the time of a course), or consist of several component module examinations. The special provisions for the individual degree programme contain further regulations. If the module examination consists of several partial module examinations, every partial module examination must be passed.

Section 12

Prerequisites for participation and admissions procedure

- (1) Students may only take an examination if they are enrolled at Paderborn University for the master's degree course to which the examination is assigned or if they have been admitted as a secondary member in accordance with section 52 HG. These prerequisites must also hold during the examination. Regulations on modules with a limited number of participants in accordance with section 59 HG and on registration for the examination remain unaffected.
- (2) Further prerequisites for taking an examination, for example any study achievement or mandatory attendance, are determined in the special provisions for the individual degree programme.
- (3) Insofar as admission is provided for under these general provisions or under the special provisions, it shall be refused if the prerequisites specified in paragraphs 1 and 2 in conjunction with the provisions in the special provisions for the respective degree programme are not met.
- (4) Subject to available capacities, in addition to paragraph 1, students of a bachelor's degree programme at Paderborn University who have acquired at least 151 credit points relevant to their degree may be admitted to modules of the corresponding

This is a translation of the "Allgemeine Bestimmungen für die Masterstudiengänge der Fakultät für Elektrotechnik, Informatik und Mathematik an der Universität Paderborn". Only the German original version of these general provisions shall be legally binding, the English translation serves convenience purposes only.

master's degree programme to a maximum of 30 credit points for one semester. The special provisions may provide different regulations. The regulation in sentence 1 can only be used once. This means that it is not possible to bring forward modules again if you have already been admitted to master's modules - even if they were not from this degree programme. Retaking a module examination after failing it is only possible after enrolment in the relevant master's degree programme. Students do not become entitled to enter the relevant master's degree programme at a later date.

Section 13

Application for admission to and registration for examinations

- (1) Students must apply for admission to the master's thesis. For other examinations, such an application is only necessary when this is explicitly stated in the special provisions.
- (2) Students must register separately for each examination on the university's campus management system within the framework of the deadlines set. Registration deadlines will be published on the university's campus management system or another suitable form.

Section 14

Examination assessments in modules

- (1) Examination assessments within modules are taken in accordance with the special provisions of the individual degree programme.
- (2) Insofar as the special provisions for the degree programme specify a framework for the form and/or length/scope of examination assessments, the examination committee, in consultation with the examiner, determines how the examination is to be performed. This will be announced by the relevant member of the teaching staff and published in Paderborn University's campus management system or in another suitable manner within the first three weeks of the lecture period at the latest. The content of the examination is based on the learning outcomes defined for the module.

Section 15

Assessments in modules

- (1) Examination assessments can take the form of a written exam, oral exam or other forms. The special provisions for the individual degree programme contains further regulations. With the exception of oral exams, students must be notified of the

evaluation in Paderborn University's campus management system no later than six weeks after the examination has been completed.

1. *Written exams:*

- In written exams, students should demonstrate that they are able to understand problems in the subject within a specified time using the aids approved by the examiner and solve them using the usual methods of the subject area.
- A written exam lasts between 90 and 180 minutes. Further details are given in the module descriptions.
- Every written exam is evaluated by an examiner. The final time an exam is repeated, it is evaluated by two examiners.
- Written exams may contain multiple-choice questions worth up to 30% of the total points available.
- Written exams can be conducted as software-supported examinations (e-exams). Students are to be informed of the type of examination. They are to be given the opportunity to familiarise themselves with the examination system. The special provisions may specify further details.

2. *Oral exams:*

- In an oral examination, candidates show that they understand the context of the area examined and that they can classify questions within this context.
- Oral examinations are held by two examiners, or one examiner in the presence of a competent observer; as individual examinations, or as group examinations of generally no more than four candidates. The final time an exam is repeated, it is held by two examiners. Before determining the grade, the examiner shall hear the observer in the absence of the candidate.
- In a group exam, an individual candidate's contribution which is to be evaluated for the exam must be clearly distinguishable and assessable.
- Oral exams last between 20 and 50 minutes. Further details are contained in the module descriptions. The duration of a group exam is extended to correspond to the number of candidates.
- A record of the main subject matter and results of the exam is to be kept. Following the oral exam, the examiner informs the candidate of the results.
- Students who wish to take the same examination at a later date will be admitted as auditors, subject to capacity, unless the candidate objects. This does not extend to the consultation or announcement of the results.

3. *Presentations and project presentations:*

- Via a presentation or a project presentation, students demonstrate that they can independently develop and present academic results. The presentation can also be organised as group work, insofar as it is possible to evaluate the individual contributions of each member of the group.
- The duration of the presentation or project presentation is given in the relevant module description.

- In addition to the presentation or project presentation, a written paper of up to 20 pages may be required (presentation with written report or project presentation with written report).

4. *Written paper with academic talk:*

Here, the student writes a paper and uses it as the basis for a talk of about 30 minutes. Students should prove that they are capable of working through a topic academically and presenting the results.

5. *Written assignments:*

Within the framework of a written assignment of approximately ten A4 pages, a task in the thematic context of a course is worked on and solved appropriately, if necessary with the help of relevant literature. The assignment can also be organised as group work, insofar as it is possible to evaluate the individual contributions of each member of the group.

6. *Colloquium:*

In the colloquium, students demonstrate that they are able to recognise technical contexts and classify specific questions in this context in a discussion lasting 20 to 30 minutes with the examiner and other participants in the colloquium.

- (2) Exams may be taken in the form specified in paragraph 1 or in the form specified in the special provisions using digital communication systems (online exams). This is regulated further in the regulations "Ordnung zur Regelung von Online-Prüfungen und der elektronischen Abgabe von Abschlussarbeiten in allen Studiengängen der Universität Paderborn sowie Studienarbeiten in den Masterstudiengängen Maschinenbau an der Universität Paderborn".
- (3) The following may be considered as study achievements
- Exercises, which are usually set weekly either as homework or in-class work,
 - Certificates of achievement
 - Written reports/seminar papers of usually 5-10 pages of A4 on a development task,
 - Internship reports of usually 5-10 pages of A4,
 - Presentations lasting 10-20 minutes or
 - Short written exams lasting up to 30 minutes.

More details are given in the module descriptions. Insofar as the module descriptions specify a framework, the member of the teaching staff determines how the study achievement is to be completed. This will be announced by the relevant member of the teaching staff and published in Paderborn University's campus management system or in another suitable manner within the first three weeks of the lecture period at the latest.

- (4) For qualified participation, the following may be considered
- exercises, which are usually set weekly either as homework or in-class work,
 - one to three certificates of achievement,

- short written examinations,
- short technical discussions,
- minutes/records, or
- presentations.

The special provisions can provide further and differing regulations here. The member of the teaching staff responsible decides what precisely is to be completed as part of qualified participation. This will be announced by the relevant member of the teaching staff and published in Paderborn University's campus management system or in another suitable manner within the first three weeks of the lecture period at the latest.

- (5) In addition to examination assessments, bonus achievements can be completed. Bonus achievements can only be completed in connection with a specific course. Bonus achievements are generally taken voluntarily in the course of a student's studies. The following forms of assessment are permitted: in-class work or homework, certificates of achievement or project work. These bonus achievements should prepare the students step by step for the coming examination assessments. The bonus achievements can be graded and improve the module grade via a grading key set out in advance (bonus system). The final module examination must be passed independently of the bonus system. The bonus system can improve the module grade by a maximum of 0.7.
- (6) Should a course require regular participation (attendance regulations), these are to be regulated by the module descriptions. Unless otherwise specified in the module description, regular participation in a course is deemed to have taken place if the student has attended at least two thirds of the course sessions.

Section 16

Evaluating study achievements in modules and forming grades

- (1) The grades for the individual examination assessments are determined by the examiners. The following grades are to be used for the evaluation of examination assessments:
 - 1 = very good: an excellent performance;
 - 2 = good: a performance that significantly exceeds the average requirements;
 - 3 = satisfactory: a performance that fulfils average requirements;
 - 4 = sufficient: a performance that still fulfils the requirements despite its shortcomings;
 - 5 = unsatisfactory: a performance that no longer fulfils the requirements due to significant shortcomings.

- (2) To enable finer assessment, intermediate values can be formed by lowering or raising the individual grade by 0.3. The grades 0.7, 4.3, 4.7 and 5.3 are, however, excluded.
- (3) Should an examination assessment be evaluated by more than one examiner, the grade is calculated as the arithmetic mean of the individual grades. Apart from that, paragraph 4 sentences 3 and 4 apply correspondingly.
- (4) If a module grade is made up of several grades, the arithmetic mean is to be calculated, weighted according to the workload of the associated courses. Deviations from this are regulated in the individual special provisions. The result is to be truncated after the first decimal place. The grade is then:
 - with an average up to and including 1.5 = very good,
 - with an average above 1.5 up to and including 2.5 = good,
 - with an average above 2.5 up to and including 3.5 = satisfactory,
 - with an average above 3.5 up to and including 4.0 = sufficient,
 - with an average above 4.0 up to and including 5.0 = unsatisfactory.
- (5) An examination assessment is passed when the results are graded sufficient (4.0) or better.
- (6) Study achievements are evaluated as “passed” or “failed”.
- (7) Qualified participation is to be demonstrated.

Section 17

Master's thesis

- (1) The master's thesis is an examination assessment concluding the master's degree programme. It should show that the candidate is able to work independently on a problem from a subject in their degree programme using academic methods within a specified period, and to present the results appropriately. It should not exceed the length specified in the special provisions. The examination committee decides on exceptions to the specified length in consultation with the examiner responsible for the supervision.
- (2) Unless otherwise stipulated in the special provisions for the respective degree programme, the master's thesis can also be completed in the form of a group thesis. The contribution of the individual student to be assessed as their examination performance must be clearly distinguishable and assessable on the basis of the specification of sections, page numbers or other objective criteria that enable a clear delimitation and fulfil the requirements of paragraph 1.
- (3) The chairperson of the Examination Committee appoints a person qualified to be an examiner in accordance with section 10 to set and supervise the thesis. The candidate has the right to suggest a person to set the topic of the thesis. This does not constitute a legal claim. The master's thesis can also be completed outside

Paderborn University with the approval of the chairperson of the examination board if the topic is set and it is supervised by a person named in sentence 1.

- (4) Upon request, the chairperson of the Examination Committee will ensure that the candidate receives a topic for the master's thesis in good time.
- (5) The chairperson of the Examination Committee assigns the topic, unless the special provisions rule otherwise. The date of the assignment is to be recorded by the Central Examinations Office. The master's thesis topic and the definition of the project will be conveyed to the candidate in writing via the campus management system.
- (6) The time allowed to complete the master's thesis is set out in the special provisions. The topic, definition of the project and length of the thesis is to be limited so that the workload envisaged, a maximum of 900 hours (30 CP), can be kept to.
- (7) The topic can be returned once, within two weeks after the start of the time allowed to work on it. In special cases, the Examination Committee may extend the processing time by up to four weeks. For this, a request must be submitted to the Examination Committee at least one week before the deadline. The request is to give reasons for the proposed extension which are related to the topic of the thesis. Furthermore, the supervisor responsible in accordance with paragraph 3 must approve. The special provisions of the individual degree programme may provide for different regulations.
- (8) In the event of illness during the period set aside for working on the master's thesis, at the candidate's request, the submission deadline may be extended to give a maximum of twice this period. A medical certificate must be submitted for this without delay. It suffices to provide a medical certificate attesting to the inability to take examinations. If there is sufficient factual evidence to assume that the student is probably fit to take the examination or that other proof is appropriate, a medical certificate from a Paderborn University medical officer may be requested at the university's expense. If the Examination Committee approves the request, the candidate will be informed of this in writing. The extension corresponds to the period of illness; it does not result in an extension of the standard period of study. If the duration of the illness exceeds the maximum extension allowed under sentence 1, the candidate may choose to complete the work within the period extended according to sentence 1 or apply for a new topic. If the Examination Committee denies the request, the candidate will be also informed of this in writing.
- (9) The master's thesis is generally written in German. If the examiner responsible for the supervision agrees, it can be written in English. Upon application, it can be written in a language other than German or English. The special provisions may provide different regulations. The Examination Committee decides on this alongside setting the topic. The content and form of the thesis must meet the professional guidelines. The thesis must contain a title page, table of contents and bibliography. Passages that are taken from other works in terms of wording or meaning must

- always be labelled as such and the source stated. The candidate shall add a written declaration to the thesis stating that they have written the thesis independently and have not used any sources or aids other than those specified, that citations have been identified and that the thesis has not been written, even in part, for another completed examination. The declaration must also cover tables, sketches, drawings, pictorial representations, etc. Reference is made to section 63 (5) HG.
- (10) The master's thesis may not have been written, even in part, for another completed examination. Section 8 of these regulations remains unaffected.

Section 18

Acceptance and evaluation of the master's thesis

- (1) The master's thesis must be submitted in duplicate (typewritten, bound and paginated) to the Central Examinations Office by the deadline. The date of submission is to be recorded by the Central Examinations Office. If the thesis is sent by post the date of the postmark is decisive. If the master's thesis is not submitted by the deadline, it is evaluated as "unsatisfactory" (5.0).
- (2) The master's thesis is also to be submitted to the first examiner in electronic form. The electronic form must agree with the written form. The technical details are regulated by the Examination Committee.
- (3) As an alternative to submission in accordance with paragraph 1 and paragraph 2, the examination candidate may also submit an electronic version of their master's thesis to the Central Examinations Office within the deadline. Detailed regulations are contained in the valid version of the ordinance "Ordnung zur Regelung von Online-Prüfungen und der elektronischen Abgabe von Abschlussarbeiten in allen Studiengängen der Universität Paderborn sowie Studienarbeiten in den Masterstudiengängen Maschinenbau an der Universität Paderborn".
- (4) The master's thesis is to be reviewed and evaluated by two examiners. One of the examiners should be the person who set the topic. The second examiner will be determined by the chairperson of the Examination Committee. The candidate has the right to make a suggestion. This does not, however, constitute a legal claim. The individual evaluation is to be completed in accordance with section 16 paragraphs 1 and 2, and reasoning is to be given. If the difference between the two individual grades is not more than 2.0 and each is "sufficient" or better, the grade for the thesis is calculated as the arithmetic mean of the individual evaluations. Section 16 paragraph 4 sentences 3 and 4 apply correspondingly. If the difference is more than 2.0 or if one assessment is 'unsatisfactory' but the other is at least 'sufficient', a third examiner will be appointed by the chairperson of the Examination Committee to assess the master's thesis. In this case the grade of the thesis will be the arithmetic mean of the three grades. Section 16 paragraph 4 sentences 3 and 4 apply correspondingly. However, even with an average above 4.0, the work can

only be graded as 'sufficient' or better if at least two grades are 'sufficient' or better. Furthermore, the work is still assessed as 'sufficient' if at least two grades are 'sufficient' or better and the average is worse than 4.0.

- (5) The student is to be informed of the evaluation of the master's thesis via Paderborn University's campus management system within ten weeks of submission.

Section 19

Further concluding achievements

The special provisions can rule that further study achievements are to be completed before or after the master's thesis in connection with the thesis as part of the concluding module (further concluding achievements). The special provisions for the individual degree programme contains further regulations.

Section 20

Additional achievements

In addition to the achievements required in the degree programme, students may, to a limited extent, take further examinations in addition to those required as part of the master's examination (additional achievements). Regulations on modules with a limited number of participants in accordance with section 59 HG remain unaffected. The additional achievements are to be identified as such when registering for them. They are not included in the grade calculation for the module or the master's examination. The module grades achieved with additional work are listed in the "Transcript of Records", unless the student requests that they not be listed before the assessment of the last examination is announced. Further regulations are contained in the special provisions.

Section 21

Evaluation of the master's examination and calculation of the overall grade

- (1) The master's examination is passed if all module examinations in the modules to be completed in accordance with the special provisions are assessed as "sufficient" (4.0) or better. If a module examination consists of several partial module examinations, each partial module examination must be graded at least "sufficient" (4.0) or "passed". The requirements for successful completion of the degree programme are set out in section 24.
- (2) The overall grade is calculated by weighting all module grades relevant for the final grade according to their credit points and calculating the arithmetic mean. The special provisions for the individual degree programme can provide for a different weighting scheme. Unless the special provisions rule otherwise, all module grades are relevant for the final grade. When calculating the result, only the first decimal

place after the decimal point is taken into account. All further decimal places will be dropped without being rounded. The grade is then:

- with an average up to and including 1.5 = very good,
- with an average above 1.5 up to and including 2.5 = good,
- with an average above 2.5 up to and including 3.5 = satisfactory,
- with an average above 3.5 up to and including 4.0 = sufficient,
- with an average above 4.0 up to and including 5.0 = unsatisfactory.

- (3) The special provisions regulate the prerequisites under which the rating “with merit” is awarded.

Section 22

Retaking examination assessments

- (1) Module examinations and partial module examinations can be retaken under the rules for examination attempts, should the grade awarded be “unsatisfactory”. The number of examination attempts and any substitution possibilities are regulated in the special provisions of the individual degree programme. A module is finally failed should a module examination or partial module examination be failed and it no longer be possible to retake it. Any compensation regulations in the special provisions for the individual degree programme remain unaffected.
- (2) If the last retake of an examination is to be a written exam, this can, at the candidate's request, be given as an oral examination of 30 to 45 minutes duration. Otherwise, section 15 No. 2 applies accordingly. Further and differing regulations are contained in the special provisions.
- (3) If the master's thesis is evaluated with grade “unsatisfactory”, it may be retaken once. For this, a new topic is to be assigned. However, when retaking the master's thesis, the topic may only be returned within the period specified in section 17 paragraph 6 if the option to return the topic was not exercised at the first attempt. If a master's thesis is failed and cannot be retaken, then the concluding module is finally failed.
- (4) Examinations that have been passed cannot be retaken.

Section 23

Cancellation of registration, non-attendance, withdrawal, cheating, breach of regulations, protection regulations and students with family responsibilities

- (1) Registration for an examination can be cancelled up to two days before it is due to take place at the latest. This is done via Paderborn University's campus management system without giving grounds. The special provisions may provide for different regulations.

- (2) Should a candidate fail to attend an exam without valid reasons, should they withdraw from the exam after its commencement without valid reasons, or should they withdraw from the exam after the cancellation deadline given in paragraph 1 without valid reasons, then examination assessment is rated “unsatisfactory” (5.0). The same holds should a written examination assessment not be submitted within the time provided.
- (3) The Examination Committee must be notified of the reasons given for missing or withdrawing from the exam in writing without delay, but no later than five working days after the respective exam date, and these reasons must be substantiated. If the candidate is ill, a medical certificate of inability to take examinations dated no later than the day of the examination is sufficient. If there is sufficient factual evidence to assume that the student is probably fit to take the examination or that other proof is appropriate, a medical certificate from a Paderborn University medical officer may be requested at the university's expense. Illness of a child within the meaning of section 25 paragraph 5 of the “Bundesausbildungsförderungsgesetz” (BAföG), as evidenced by a medical certificate, is deemed to be the candidate's inability to take the exam if care could not be guaranteed in any other way, in particular if the candidate is predominantly the sole carer. If the Examination Committee accepts the reasons given, the candidate will be informed in writing and a new examination date will be set. In this case, the examination results which are already available are to be taken into account. If the Examination Committee does not accept the reasons given, the candidate will be informed in writing.
- (4) If a candidate cheats or attempts to cheat, the examination assessment in question shall be evaluated as “unsatisfactory” (5.0). If a candidate carries an unauthorised aid with them, the examination assessment in question may be assessed as “unsatisfactory” (5.0). The incidents are recorded by the exam invigilators. The determination according to sentence 1 or the decision according to sentence 2 is made by the relevant examiner.
- (5) A candidate who disrupts the proper conduct of the exam may be excluded from continuing by the relevant examiners or invigilators, usually after a warning; in this case, the examination in question is deemed to have been assessed as “unsatisfactory” (5.0). The reasons for exclusion are to be recorded.
- (6) In serious cases, the Examination Committee may exclude the candidate from further exams. Acts of deception can also be penalised with a fine of up to 50,000 euro and lead to de-registration in accordance with section 63 paragraph 5 HG.
- (7) The candidate may request within 14 days that decisions pursuant to paragraph 4 sentences 1 and 2 and paragraph 5 be reviewed by the Examination Committee. Unfavourable decisions by the Examination Committee must be communicated to the candidate immediately in writing, stating the reasons and providing information on legal remedies. The candidate must be given the opportunity to be heard before a decision is made.

- (8) The Examination Committee also regulates disadvantage compensation for students with disabilities or chronic illnesses. If the student is unable to perform in full or in part in accordance with the intended modalities due to their disability or chronic illness, disadvantage compensation should be granted. In particular, the granting of organisational measures and aids, the extension of the processing time or the permission of another, equivalent form of completing the study achievement can be considered as disadvantage compensation. The disability or chronic illness is to be substantiated. A medical certificate or psychological report may be required for this purpose. The application should specify and justify the desired changes. At the request of the student or the Examination Committee in agreement with the student, the representative for students with impairments, chronic illnesses and disabilities can make recommendations to the Examination Committee regarding the composition of disadvantage compensation.
- (9) The special situation of students with family responsibilities is taken into account in their studies and in their completion of study achievements. This takes place in the following forms, among others:
- a) For female students, the relevant provisions of the applicable Maternity Protection Act (Mutterschutzgesetz, MuSchG) apply. Pregnant or breastfeeding women should notify the Central Examinations Office of their pregnancy or breastfeeding in accordance with Section 15 (1) of the MuSchG. Proof in accordance with section 15 paragraph 2 of the MuSchG should be submitted. The Examination Committee may determine other forms of completing study achievements, taking the individual case into account. The maternity protection periods interrupt any time limit given by these general provisions or the special provisions; the duration of maternity protection is not included in the time limit.
 - b) Likewise, upon application, periods of parental leave must be taken into account in accordance with the applicable versions of the "Bundeselterngeld- und Elternzeitgesetz - BEEG" (BEEG). The candidate must inform the Examination Committee in writing of the period or periods for which he or she wishes to take parental leave at least four weeks before start date, enclosing the necessary evidence. The Examination Committee examines whether the legal requirements that would trigger an employee's entitlement to parental leave are met in accordance with the BEEG and determines the dates and deadlines, taking into account the individual case. The time allowed for working on the master's thesis can be extended to double the standard time at most. Otherwise, the thesis set will be deemed not to have been assigned and the candidate will be given a new topic after the end of the parental leave.
 - c) Upon application, the Examination Committee will take into account periods of absence due to the care and upbringing of children within the meaning of section 25 paragraph 5 of BAföG and periods of absence due to the care of

a spouse, registered partner, partner in a marriage-like relationship or a direct relative or first-degree relative by marriage and will determine the deadlines and dates taking into account the individual case. Apart from that, sentences 4 and 4 from letter b) apply correspondingly.

Section 24

Successful completion of the degree programme, final failure

- (1) The degree programme is successfully completed when the master's examination has been passed and the credit points have been awarded in all modules to be completed in accordance with the special provisions (cf. section 11 paragraph 2 and section 21 paragraph 1).
- (2) The master's examination is finally failed if a module is finally failed. The special provisions of the individual degree programme may include compensation or deselection regulations. The master's examination is in this case finally failed should a module be finally failed and compensation or deselection of the module is not possible. The chairperson of the Examination Committee notifies a candidate of the definitive failure of the master's examination in writing. The notification is to contain information on the possibilities of contestation and appeal.

Section 25

Certificate, transcript of records, diploma supplement

- (1) A candidate who successfully completes the degree programme receives a certificate of the results. This certificate contains the name of the degree programme, the standard period of study and the overall grade. The certificate gives the date that the final examination assessment was taken. It also bears the date of issue. The certificate is to be signed by the chairperson of the Examination Committee.
- (2) In addition, the candidate receives a transcript of records, which lists the successfully completed examination assessments and the duration of the degree programme. The transcript of records contains information about the credit points and the module grades obtained, and of the master's thesis. It also contains the topic of the master's thesis and the overall grade achieved in the master's examination.
- (3) A diploma supplement in English and German is issued with the certificate.
- (4) It complements the certificate with standardised information on German university degrees, which explains the German education system and categorises the degree. It provides information about the degree programme completed and the academic and professional qualifications acquired with the degree. The diploma supplement contains the main contents of the programme on which the degree is based, the

course of studies, the competencies acquired with the degree and the awarding university.

- (5) If a candidate has finally failed the master's examination, he or she will be issued a certificate of achievement upon request. This contains the successfully completed study achievements and, if applicable, the credit points earned and indicates that the master's examination has been finally failed. Students who, for other reasons, leave the university without completing the programme are, upon request, issued with a transcript of records after de-registration. This details the successfully completed study achievements and, if applicable, the credit points earned.

Section 26

Master's degree certificate

- (1) At the same time as the certificate of the degree programme being passed is issued, a degree certificate is issued with the date of the issue of the certificate. This certifies the award of the degree in accordance with section 3.
- (2) The master's degree certificate is signed by the dean of the faculty or deans of the faculties responsible for the degree programme and the chairperson of the Examination Committee, and bears the seal of Paderborn University.
- (3) An English language translation of the master's degree certificate is attached.

Section 27

Access to the examination files

- (1) After the grades have been announced, the candidate may be given the opportunity to inspect their written examination assessments and the examiners' evaluations of them. The examiner determines the time and place of the inspection and announces this in a suitable form.
- (2) If paragraph 1 is not applied, the candidate will be granted access to his or her written examination assessments, the related assessments of the examiners and the examination records upon request no later than one month after the announcement of the results of the relevant examinations. Upon request, within one year of receiving the certificate, the candidate will be granted access, within a reasonable period of time, to inspect the master's thesis and the related reports and examination records. The chairperson of the Examination Committee determines the time and place of the inspection; these tasks can be delegated to the examiner.

IV Final provisions

Section 28 Invalidity of the master's examination

- (1) If a candidate has cheated in an examination, and this becomes known only after the issue of the certificate, then the Examination Committee can amend the grade retroactively and declare the examination wholly or partially failed.
- (2) Should the prerequisites for admission to an examination not be fulfilled, without the candidate wishing to deceive, and should this only come to light after the degree certificate is issued, then this flaw is remedied by the passing of the examination. Should the candidate have wrongly obtained admission intentionally, the Examination Committee will decide on the retraction of any unlawful administrative action, observing the "Verwaltungsverfahrensgesetz für das Land Nordrhein-Westfalen".
- (3) The person concerned is given the opportunity to be heard before the decision is made.
- (4) The incorrect certificate is to be confiscated and, where applicable, a new certificate issued. A decision in accordance with paragraph 1 and paragraph 2 sentence 2 is precluded following a deadline of five years after the date of the certificate.
- (5) If the examination assessment is generally declared failed, that the master's degree is to be revoked and the degree certificate confiscated. Revoking a master's degree is only possible within five years after the degree is awarded.

Section 29

Revocation of the master's degree

The master's degree can be revoked if it subsequently transpires that it was obtained by deception or if essential requirements for the award were mistakenly considered to have been met. The faculty board or the faculty boards responsible for the degree programme shall decide on the revocation by resolution with two thirds of its members. The revocation is only possible within five years of the degree being awarded.

Section 30

Transitional provisions, entry into force and publication

- (1) These general provisions shall apply to students of Paderborn University who are studying in accordance with the special provisions which refer to these general provisions. Transitional provisions for previous versions of the examination regulations are set out in the special provisions.

This is a translation of the "Allgemeine Bestimmungen für die Masterstudiengänge der Fakultät für Elektrotechnik, Informatik und Mathematik an der Universität Paderborn". Only the German original version of these general provisions shall be legally binding, the English translation serves convenience purposes only.

- (2) These general provisions enter into force on 1 October 2024. At the same time, the general provisions for the master's degree programs of the Faculty of Computer Science, Electrical Engineering and Mathematics at Paderborn University from 29 May 2020 (AM.Uni.Pb. 25.20) expire.
- (3) These general provisions are published in the Official Notices of Paderborn University (AM.Uni.Pb.).
- (4) Pursuant to section 12 paragraph 5 HG, a violation of procedural or formal provisions of HG or the university's regulatory or other autonomous law can no longer be asserted against these regulations after the expiry of one year since the publication of these regulations, unless
1. the regulations have not been duly published,
 2. the Executive Board has previously objected to the resolution of the body adopting the regulations,
 3. the formal or procedural defect has been notified to the university in advance, specifying the legal provision violated and the fact that reveals the defect, or
 4. the legal consequence of the exclusion of objection was not pointed out in the public announcement of the regulations.

Issued on the basis of the resolution of the Faculty Board of the Faculty of Computer Science, Electrical Engineering and Mathematics of 16 June 2023 and after examination of legality by the Paderborn University Executive Board on 28 June 2023.

Paderborn 24 May 2024

The President
of Paderborn University

Professor Dr. Birgitt Riegraf