

University of Applied Sciences Nordhausen

Examination Regulations for the Master's programmes in the Department of Engineering at Nordhausen University of Applied Sciences

Reading Version in English language

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Pursuant to Section 3 (1) in conjunction with Section 37 (1) No. 2 of the Thuringian Higher Education Act (ThürHG) of 10 May 2018 (GVBl. p. 149), as last amended by Article 27 of the Act of 6 June 2018 (GVBl. p. 229), and Section 10 (1) No. 2 of the Basic Regulations of the University of Applied Sciences Nordhausen (Official Gazette of the Thuringian Ministry of Education No. 28/2019, p. 1087) the Nordhausen University of Applied Sciences shall issue the following examination regulations for the master courses at the Nordhausen University of Applied Sciences in the Department of Engineering of the Nordhausen University of Applied Sciences. The Faculty Council for Engineering Sciences adopted the study regulations on 08 April 2020. The study regulations were approved by the President on 15 April 2020.

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Section 1: General Information

§ 1

Scope, objectives and equality provisions

- (1) These examination regulations regulate the procedure and responsibility for the acceptance of the Master's examination in the Master's programmes with 90 credit points in the Department of Engineering at the University of Applied Sciences Nordhausen. The study regulations adopted on the basis of these examination regulations regulate the content, structure and course of the study programme.
- (2) The successful completion of the Master's examination leads to the award of the degree "Master of Engineering" in accordance with international standards.
- (3) Status and function designations of this order are valid in male and female form.

§ 2

Standard period of study, study structure and scope of work

- (1) The standard period of study is three semesters. For students who have completed a Bachelor's programme with only 180 ECTS credits, a qualification semester is held up.
- (2) The workload in the compulsory and elective areas is 90 ECTS credits.
- (3) ECTS credits are a quantitative measure of the amount of time spent studying. Each semester, 30 ECTS credit points must be earned; one credit point corresponds to a workload of 30 hours.

§ 3

Examination structure

- (1) The Master's examination consists of study and exam achievements, the Master's thesis and the Master's colloquium.
- (2) The exam structure is modular and structured according to the internationally accepted ECTS credit point system. As a rule, each examination completes a module. If a module consists of several study units, each individual study unit can be completed by an examination. In this case, the person responsible for the module will publicly announce the share of the examination in the study units to the final examination grade of the module. The module managers are nominated by the dean.

- (3) Examinations are individual concrete examination procedures, held in written or oral form. They are taken during the examination period specified by the university in accordance with the study regulations. Presentations and project work can be taken regardless of the examination period. Examinations shall be assessed and graded in accordance with § 11 Para. 1.
- (4) Study achievements are individual achievements that are performed in connection with courses. They can be ungraded with the certificate "participated" or "successfully participated" or be graded according to § 11 Abs. 1. Study achievements are listed in the certificate, but their grades are not included in the calculation of the overall grade. In addition, study achievements are treated as examination achievements.
- (5) In addition to the grades, credit points are awarded according to the ECTS procedure. Further details can be found in the study regulations.

§ 4 Regulation of terms

The course of study should be completed within the standard period of study. Periods of maternity leave, periods of parental leave, periods of actual care of a close relative according to § 7 para. 3 PflegeZG, whose need for care is proven according to § 3 para. 2 PflegeZG, will not be credited to the standard period of study upon application. The examination board decides on the basis of the application by the student. There are no special deadlines.

§ 5 Examination requirements

- (1) Only individuals who have been enrolled at Nordhausen University of Applied Sciences since the beginning of the semester on the basis of a certificate of general higher education entrance qualification, subject-related higher education entrance qualification or technical college entrance qualification or on the basis of an access qualification recognised as equivalent by law or by the competent state authorities and have not yet definitively passed the examination may take part in an examination.
- (2) The registration for the examinations takes place by enrolment. Only individuals who have previously registered with the Central Examination Office for this examination within the registration period announced on the respective notice board and have not yet finally passed the corresponding examination will be admitted to participate in an examination. Cancellation of the examination is possible up to three working days before the corresponding examination date at the latest.
- (3) Admission to an examination may only be refused if the requirements set out in subsections 1 and 2 above are not met, or if the candidate has definitively not passed the Master's examination in the chosen course of study at a higher education institution within the area of application of the Basic Law, or is in the course of study selected in an examination procedure not yet completed, or has lost their examination entitlement in accordance with Land law by exceeding the deadlines for registration for the respective examination or taking it.
- (4) Examination achievements that require a preliminary examination in accordance with the study regulations will only be credited once this preliminary examination has been completed.
- (5) Once the examination papers have been issued, the candidate is not entitled to withdraw from the examination unless there are good reasons to do so. The Examining Board decides on the right to resign.

§ 6 Types of examinations

- (1) Examinations may be performed orally (§ 7), in writing or computer-aided (§ 8) or in the form of alternative examinations (§ 9). Unless otherwise stipulated in the study regulations, the type of examination is determined by the person responsible for the module before the start of the associated courses and made public at the university.
- (2) Written tests based mainly on multiple choice are not permissible.

- (3) If the candidate proves that they are unable to sit all or part of the examination in the prescribed form because of a prolonged or permanent physical disability, they may, upon application to the relevant examination board, be authorised to sit the examination in another form. For this purpose, an official medical certificate may be required.
- (4) With the exception of language examinations, the examination language in German-speaking degree programmes is German and in English-speaking degree programmes English. The candidate may request to be allowed to sit an examination in another language. The Examining Board decides on the application in consultation with the examiner and, if necessary, the other examiner or the observer.
- (5) Paragraphs 1 to 4 shall apply mutatis mutandis to study achievements.

§ 7

Oral examinations

- (1) In oral examinations, the candidate should prove that they recognise the context of the examination area and are able to classify specific questions in this context.
- (2) Oral examinations are usually taken in front of at least two examiners (Kollegialprüfung) or in front of an examiner in the presence of an observer (§ 17) as a group examination or as an individual examination. The duration per candidate is a minimum of 15 minutes and a maximum of 60 minutes.
- (3) The procedure and results of the oral examination shall be recorded in minutes. The minutes shall be signed by the examiner. The candidate must be informed of the result at the end of each oral examination.

§ 8

Written and computer-aided examinations

- (1) In the written examination papers, the candidate should prove that they can solve tasks and deal with topics in a limited time and with limited aids using the usual methods of the examination subject. It should also be determined whether the candidate has a broad basic knowledge. The possibility for the candidate to choose from examination topics is allowed.
- (2) Written examinations, the passing of which is a prerequisite for the continuation of studies, are generally to be assessed by two examiners, at least one of whom must be a university lecturer. The grade results from the arithmetic mean of the individual valuations. The evaluation procedure shall not exceed four weeks.
- (3) Depending on the requirements of the respective examination subject, the duration of written examinations in the form of written examinations is a minimum of 60 minutes and a maximum of 180 minutes. Written examinations are usually taken within the examination period specified by the university.
- (4) Paragraphs (1) to (3) shall apply mutatis mutandis to computer-based examination services. The modalities inherent to the specific nature of the examination will be made known to the participants prior to the examination.

§ 9

Alternative modes of examination

- (1) Examinations can be carried out in alternative forms, for example as a laboratory internship, field work, project work, presentation or term paper. The type of alternative examination will be determined by the examiner and made public at the beginning of the corresponding courses.
- (2) In the case of alternative examinations which are provided in the form of group examinations, the contributions of the individual candidate shall be clearly identified on the basis of sections, page numbers or other objective criteria which enable a clear distinction to be made, are clearly distinguishable and can be assessed.

§ 10

Preliminary examinations

- (1) For the crediting of examinations, proof of the performance of preliminary examinations may be required. Such preliminary examinations may be, for example, participation certificates, attestations, protocols or practical laboratory work, insofar as these do not constitute an independent alternative examination service in accordance with § 9. The necessity and the way in which the preliminary examination work is to be performed are determined by the person responsible for the module and made publicly known to the university before the start of the corresponding courses, unless they are regulated in the study regulations.
- (2) Preliminary examinations can be graded or ungraded. Graded preliminary examination work is deemed to have been performed if it has at least been assessed as "sufficient" (cf. § 11). In this case, the grade can be credited with up to 50% of the examination grade; the degree of crediting is determined by the person responsible for the module and is announced to the public at the beginning of the corresponding courses.

§ 11

Evaluation of examination and formation of grades

- (1) The marks for the individual examinations are determined by the respective examiners. The following grades are to be used for the evaluation of the examinations:

| | |
|--------------------|---|
| 1 = very good | = excellent achievement |
| 2 = good | = an achievement that noticeably exceeds the average requirements |
| 3 = satisfactory | = an achievement meeting average requirements |
| 4 = sufficient | = an achievement which, despite its defects, still meets the requirements |
| 5 = not sufficient | = an achievement which, due to significant deficiencies, does not meet the requirements |

For a differentiated evaluation of the examination results, the grades can be increased or decreased by 0.3 to intermediate values; grades 0.7, 4.3, 4.7 and 5.3 are excluded.

- (2) The final grade for averaged grades is calculated according to the study regulations from the weighted average of the grades of the examinations. Of the resulting mean, only the first decimal place after the decimal point is taken into account; all other digits are deleted without rounding.

The overall grade is as follows

| | |
|--|----------------|
| for an average of up to and including 1.5 | very good |
| for an average of 1.6 to 2.5 inclusive, | good |
| for an average of 2.6 to 3.5 inclusive | satisfactory |
| for an average between 3,6 and 4,0 inclusive | sufficient |
| for an average of 4.1 or more | not sufficient |

- (3) The conversion of grades into ECTS grades according to the German grading system is carried out according to the following scheme:

| overall mark | ECTS grades |
|--------------|------------------|
| 1.0 to 1.5 | A - excellent |
| 1.6 to 2.0 | B - very good |
| 2.1 to 3.0 | C - good |
| 3.1 to 3.5 | D - satisfactory |
| 3.6 to 4.0 | E - sufficient |
| 4.1 to 5.0 | FX/F - Fail |

- (4) If there is sufficient experience about the distribution of grades among the students in the degree programme, ECTS grades are determined for the overall grade according to the following scheme. This is based on the

overall grades of the graduates who have completed their studies in the previous semesters have completed.

| overall mark | ECTS grades |
|--------------------------|--------------------|
| belongs to the best 10 % | A - excellent |
| belongs to the next 25 % | B - very good |
| belongs to the next 30% | C - good |
| belongs to the next 25 % | D - satisfactory |
| belongs to the next 10 % | E - sufficient |

- (5) The evaluation of an examination should take place within 6 weeks after the end of the examination period.

§ 12

Failure, rescission, deception, breach of order

- (1) An examination is deemed to be "not sufficient" (5.0) if the candidate misses an examination date which is binding for them without a valid reason or if they withdraw from an examination without a valid reason. The same applies if a written examination is not performed within the specified processing time. An examination date is binding if the candidate has registered for it and has not cancelled their registration at least three working days before the examination date.
- (2) The reason given for the resignation or omission must be immediately notified in writing to the examination board and be substantiated. In the event of illness of the candidate, a child to be cared for by them or a relative in need of care, the candidate must immediately submit a medical certificate of incapacity for examination. In cases of doubt, an official medical certificate may be requested from the selection board.
- (3) If the candidate tries to influence the result of their examination by deceiving or carrying along unauthorised aids, the performance in question will be assessed as "insufficient" (5.0). A candidate who interferes with the proper conduct of the examination may be excluded from continuing with the examination by the examiner or supervisor; in this case, the candidate's performance will be assessed as "insufficient" (5.0). In serious cases of deception or in cases of fraud, the selection board may consider the performance of the candidate to have been definitively failed.
- (4) Within the first two months of the following semester, the candidate may demand that the decisions pursuant to subsection (3) sentences 1 and 2 be reviewed by the examination board. Decisions must be communicated to the candidate immediately in writing. In the event of a decision to the detriment of the candidate, the reasons for the decision shall be stated and the candidate shall be informed of the remedies available to them.

§ 13

Passing and failing

- (1) The examination is deemed to have been failed if it was assessed as "not sufficient" (5.0). An examination is deemed to have finally failed if the examination has been assessed three times as "insufficient" (5.0) and this assessment has been confirmed by a second correction.
- (2) The Master's examination is passed if all examination achievements and the required study achievements are proven, the Master's thesis has been assessed as at least "sufficient" (4.0) and the Master's colloquium has been passed. The Master's examination is definitively not passed if an examination paper, the Master's thesis or the Master's colloquium is definitively not passed.
- (3) Test results shall be disclosed in an appropriate manner in compliance with data protection regulations.
- (4) If the candidate has definitely not passed the Master's examination, a certificate will be issued upon presentation of the corresponding proofs and the exmatriculation certificate, which contains the examination and study achievements and their grades as well as the missing examination and study achievements and indicates that the Master's examination has definitively not been passed.
- (5) The candidate may appeal against decisions of the examination board to the chairman of the examination

board within four weeks of receipt of the document. This must be made in writing and in due time, the date of the postmark is valid. If the selection board considers that the appeal is well founded, it will help the appeal and decide on the costs. If it does not help, they shall forward the appeal to the President. The latter shall issue a notice of opposition.

§ 14 Repetition of examinations

A Master's thesis graded "insufficient" (5.0) and a colloquium graded "insufficient" (5.0) can be repeated once. Others with "not sufficient" (5.0) graded Exam performances can be repeated twice. The repetition of a passed examination is not permitted. The result of a second failed repetition of a graded piece of work must be confirmed by a second correction. Failed attempts at universities in the Federal Republic of Germany shall always be credited.

§ 15 Recognition of periods of study, study and exam achievements

- (1) Periods of study, study and exam achievements in a course of study at an institution providing higher education and recognised by the competent authority of the respective State as belonging to its higher education system shall, upon application, be credited provided that no substantial differences in the acquired competences can be established and justified in relation to those which they would replace.
- (2) Achievements or qualifications obtained outside of the university can be recognized as examination results if the requirements for university admission are met. The performance or qualification must be at least as comprehensive, content-related and of the same level as the part of the study program which it should replace. The verification of comparability and recognition is carried out by the Audit Committee. The applicant submits an informal application to the examination board. The recognized extramural achievements and qualifications may not exceed 50% of the replace university studies.
- (3) After an exam has been taken in a Master's program of the Faculty of Engineering, the crediting of a previously taken exam is excluded. In the case of crediting a performance, the grade will be taken over in comparable grading systems, otherwise the remark "passed" will be included. A marking of the crediting in the certificate is permissible.
- (3) If, during the course of study, study and exam achievements are achieved at another university, in particular abroad, the decision on the crediting of these achievements is made in advance if the candidate so requests. A Learning Agreement concluded between the candidate and the examination board replaces the application and decision.
- (4) The responsibility for providing sufficient information on periods of study, credits and examinations for which credit is requested rests primarily with the applicant, who provides such information in good faith.

§ 16 Examination board

- (1) For the organization of examinations and the further tasks arising from these examination regulations, an examination board is to be formed at the Faculty of Engineering Sciences. Four professors from the department, one academic employee according to § 20 Abs. 2 ThürHG and two students belong to it as members. The term of office of the student members is one year, that of the other members three years.
- (2) The members of the examination board are appointed by the responsible department council. The examination committee elects a maximum of two chairmen from among the professors who belong to it. If two chairpersons are not elected, a chairman and a deputy chairman shall be appointed. The chairmen conduct the business of the examination committee on an equal footing and are individually entitled to represent the committee. They convene and chair the meetings of the examination committee and conduct the resolutions passed there. In the event of a tie, the votes of the chairmen shall be decisive. The Audit Committee may adopt its own rules of procedure.

- (3) The examination board may delegate revocably certain decisions or certain types of decisions to the chairpersons and establish guidelines for certain types of decisions.
- (4) The examination board organises the examinations, performs the duties incumbent upon it under these examination regulations and ensures that the provisions of these examination regulations are complied with. It reports to the faculty council on the development of examination results and study times as well as on the distribution of module and overall grades. The examination board makes suggestions for the reform of the study regulations / study plans and the examination regulations.
- (5) The members of the examination board have the right to attend the exam and study achievements.
- (6) If it turns out that the procedure of an examination according to § 6 paragraph 1 sentence 1 was afflicted with deficiencies which influenced the examination result, the examination board orders at the request of a candidate or ex officio that the examination be repeated by a certain candidate or by all candidates. The deficiencies must be reported immediately to the chairman of the examination board or to the examiner. One year after completion of the examination, official orders pursuant to sentence may no longer be issued.
- (7) The candidate may appeal against decisions of the selection board to the chairmen of the selection board within four weeks of receipt of the decision. The postmark will serve as proof that the deadline has been met. If the selection board considers that the appeal is well founded, it will help the appeal and decide on the costs. If they do not help, they shall forward the appeal to the President. The latter shall issue a notice of opposition.
- (8) The members of the examination board shall be bound by official secrecy. If they are not in public service, they shall be bound to secrecy by the chairperson.

§ 17

Examiners and assessors

- (1) Only university professors and other persons of the university entitled to audit according to § 54 para. 2 and 3 ThürHG are appointed as examiners. The assessor should have the qualification to be determined by the examination or an equivalent qualification.
- (2) Section 16 (8) shall apply accordingly to the auditors and the assessors.

§ 18

Responsibilities

- (1) The examiners decide on the passing and failing of examinations and academic achievements (§ 13, paragraphs 1 to 3, § 3, paragraph 4), the Master's thesis (§ 22, paragraph 2) and the final Master's colloquium (§ 23).
- (2) The examination board decides:
 1. on the consequences of violations of examination regulations (§ 12),
 2. on the recognition of periods of study, examinations and study achievements (§ 15),
 3. on the appointment of examiners and assessors (§ 17),
 4. on the right to issue the Master's thesis (§21 Paragraph 2) and
 5. about the final failure to pass an examination or Master's examination,
 6. otherwise in all questions of examination matters, unless otherwise provided for in these examination regulations.
- (3) The examination board is supported in the administrative and organisational handling of examinations by the Study Service Centre of the University of Applied Sciences Nordhausen.

Section 2: Master's examination

§ 19

Purpose and conduct of the Master's examination

- (1) The Master's examination forms the conclusion of the Master's programme. The Master's examination determines whether the candidate has an overview of the interrelationships of their subject, has the ability to apply scientific methods and findings, in particular, and has acquired the necessary in-depth specialist knowledge.
- (2) As a rule, the examination results of the Master's examination must be completed after the respective courses during the course of study. The Master's examination is concluded with the Master's thesis and the Master's colloquium.

§ 20

Type and scope of the Master's examination

- (1) The total Master's grade consists of individual examination results, the grade of the Master's thesis and the grade of the Master's colloquium.
- (2) Examinations must be taken in accordance with the study regulations. The subject of the examination papers are the subject areas of the study units or modules assigned to them in accordance with the study regulations. The type of examination in the individual modules is generally specified in the study regulations.
- (3) The candidate receives ECTS credits in accordance with the study regulations for passed examinations.

§ 21

Output and processing time of the master thesis

- (1) The Master's thesis should show that the candidate is able to work independently and with scientific methods on a practically relevant problem from their subject within a given period of time.
- (2) The topic of the Master's thesis is presented by a professor or another person entitled to sit the examination in accordance with § 17 of these regulations and issued by the responsible examination board.
- (3) The topic of the Master's thesis may only be issued once 45 ECTS credits have been earned.
- (4) The procedure for issuing the Master's thesis is regulated by the examination board. The subject and time shall be recorded. The candidate may express requests for topics. In justified cases, the topic can be revised once and only within four weeks of issue.
- (5) The processing time for the Master's thesis is a maximum of five months. The topic, task and scope of the Master's thesis must be limited in such a way that the deadline for processing the Master's thesis can be met. The processing time may be extended by up to four weeks at the candidate's request for reasons beyond their control.

§ 22

Submission, evaluation and repetition of the Master's thesis

- (1) Three bound copies of the Master's thesis must be submitted to the Studien-Service-Zentrum (SSZ) by the deadline; the time of submission must be recorded on a record. With the approval of the first examiner of the university, the Master's thesis can also be submitted in another form. In any case, one bound copy must be submitted for archiving. At the time of submission, the candidate must declare in writing in an attached declaration that they have written their work independently and have not used any other sources and aids than those stated. This declaration must be attached to the copies submitted.
- (2) A Master's thesis that is not submitted on time according to paragraph 1 must be evaluated as "insufficient" (5.0).

- (3) The review and evaluation of the Master's thesis is carried out by a first examiner and a second examiner. The grade of the Master's thesis is calculated from the average of the individual grades of the examiners in the case of grade differences. If the examiners' assessments differ by more than two marks or if one of the examiners awards the mark "insufficient" (5.0), a third examiner must be included. In this case, the overall grade is the arithmetic mean of all three evaluations.
- (4) The Master's thesis can only be repeated once in the case of an assessment that is worse than "sufficient" (4.0). The topic of the Master's thesis may only be returned within the period specified in § 21 Paragraph 4 Sentence 4 if the candidate has not made use of this option when writing their first failed Master's thesis.
- (5) The review and evaluation of the Master's thesis must be completed after three months at the latest.

§ 23 Master's colloquium

- (1) The Master's colloquium is the professional conclusion of the course of study. The candidate should show that they are able to analyse and work on practical problems from their field systematically, independently and according to scientific methods.
- (2) A colloquium will give the candidate the opportunity to present and defend their master's thesis. The colloquium is limited to questions about the course of study and the subject area from which the Master's thesis is taken.
- (3) The Master's colloquium is usually held before the first examiner of the Master's thesis and is attended by the second examiner of the Master's thesis. The duration is usually 60 minutes. A Master's colloquium that has not been passed can be repeated once.
- (4) Listeners are admitted according to the spatial conditions, unless the examiners object. However, admission does not extend to the consultation and announcement of the examination results.
- (5) The Master's colloquium can only be scheduled if proof of all examination achievements of the Master's examination has been furnished and the Master's thesis has been assessed as at least sufficient.
- (6) The main topics and results of the Master's colloquium must be recorded in a protocol and signed by the examiner and the observer. The result shall be communicated to the candidate on the same day.

§ 24 Additional subjects

- (1) The candidate can take an examination in more than the prescribed study units (additional subjects). The results of the examinations in the additional subjects are listed on request in the certificate, but are not taken into account when determining the overall grade.
- (2) Each additional subject must be named to the examination office by the candidate by the Master's colloquium at the latest.

§ 25 Calculation of the Master's grade and Master's certificate

- (1) The Master's grade is calculated on the basis of the examination results according to the study regulations, the grade of the Master's thesis and the grade of the Master's colloquium, taking into account § 11 Para. 2. The weighting is carried out according to the requirements of the study regulations.
- (2) If the overall mark is 1.3 or better, the overall mark shall be "passed with distinction".
- (3) Candidates who pass the Master's examination receive a certificate (see Annex 2). The certificate includes the examination results and the number of ECTS credits, broken down by modules, in accordance with the study regulations, the topic of the Master's thesis and its grade, the grade of the Master's colloquium and the overall grade. The results of the additional subjects (§ 24) as well as the duration of study required until

completion of the Master's examination will be included in the certificate upon application. A separate certificate will be issued for achievements within the framework of the qualification structure in accordance with § 3 Para. 2 of the Master's Programme Regulations, depending on the type of achievements (see Annexes 2.a, 2.b or 2.c).

- (4) The certificate shall bear the date of the day on which the colloquium was held. It is signed by the Dean of the department and the Chairman of the examination board.
- (5) The certificate is issued in German and English.

§ 26 Master's certificate

- (1) An examination certificate in accordance with § 25 paragraphs 3 to 5 (see Annex 2) shall be issued for the Master's examination passed. At the same time as the examination certificate, the candidate receives the Master's certificate (see Annex 3) for the Master's examination passed, which must be dated with the certificate.
- (2) The Master's certificate for the passed Master's examination certifies the award of the degree "Master of Engineering (M. Eng.)".
- (3) The Master's certificate is issued in German and English, signed by the President and bearing the seal of the university.
- (4) In addition to the Master's certificate and the Master's certificate, a Diploma Supplement according to the model of the European Union / Europarat / Unesco is issued in German and English (see Annex 1).

Section 3: Final provisions

§ 27 Invalidity of the Master's examination

- (1) If the candidate has deceived during an examination and this fact only becomes known after the certificate has been handed over, the grade of the examination may be corrected in accordance with § 12 Para. 3. If necessary, the examination can be declared "insufficient" (5.0) and the Master's examination "failed". The same applies to the Master's thesis.
- (2) If the prerequisites for the acceptance of an examination were not fulfilled without the candidate wishing to deceive, and if this fact only becomes known after the certificate has been issued, this deficiency shall be remedied by passing the examination. If the candidate intentionally and wrongly obtained that they could take the examination, the examination may be declared "insufficient" (5.0) and thus the Master's examination "failed".
- (3) The candidate shall be given an opportunity to comment before a decision is taken.
- (4) The incorrect certificate shall be withdrawn and, if necessary, a new one drawn up. The examination certificates must also be confiscated with the incorrect certificate if the Master's examination has been declared "failed" due to a deception. A decision pursuant to paragraph 1 or paragraph 2 sentence 2 is excluded after a period of 5 years from the date of the certificate.

§ 28

Access of the examination files

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

§ 29

Coming into effect

- (1) These examination regulations come into effect on the first day after their announcement in the announcement sheet of the Hochschule Nordhausen.
- (2) These examination regulations apply to students who are enrolled for the first time in a Master's programme with 90 ECTS credits in the Engineering Faculty as of the winter semester 2020/2021.

Nordhausen, 15. April 2020

President
University of Applied Sciences Nordhausen

Dean
University of Applied Sciences Nordhausen
Department of Engineering Sciences

University of Applied Sciences Nordhausen

Study Regulations

for the Master's programmes in the Department of Engineering at Nordhausen University of Applied Sciences

Reading Version in English language

The official version is published in German language in
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Pursuant to Section 3 (1) in conjunction with Section 37 (1) No. 2 of the Thuringian Higher Education Act (ThürHG) of 10 May 2018 (GVBl. p. 149), as last amended by Article 27 of the Act of 6 June 2018 (GVBl. p. 229), and Section 10 (1) No. 2 of the Basic Regulations of the University of Applied Sciences Nordhausen (Official Gazette of the Thuringian Ministry of Education No. 28/2019, p. 1087) the Nordhausen University of Applied Sciences shall issue the following study regulations for the mastercourses at the Nordhausen University of Applied Sciences in the Department of Engineering of the Nordhausen University of Applied Sciences on the basis of the approved examination regulations for the master courses by the President on 15 April 2020. The Faculty Council for Engineering Sciences adopted the study regulations on 08 April 2020. The study regulations were approved by the President on 15 April 2020.

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§ 1

Scope of the study regulations

These study regulations regulate the objectives, contents and structure of the Master's programmes in the Department of Engineering at Nordhausen University of Applied Sciences.

§ 2

Goal of study, qualification profile, degree

- (1) The Master's programmes in the Department of Engineering provide the students with a scientifically oriented basic education. The Master's programmes in the Department of Engineering include the programs listed in the annexes to these regulations. Students are taught the necessary scientific knowledge, skills and methods, taking into account the requirements and changes in the professional world, so that they can apply them independently and responsibly and classify them critically.

- (2) The Master's examination is the scientifically and professionally qualifying degree of the study programme. The aim of the Master's examination is to determine whether the students have acquired the specialist knowledge necessary for scientific and professional work and have the ability to work independently on problems on the basis of scientific findings and methods. With this conclusion, the qualification for a further scientific activity that can lead to a doctorate is given.

- (3) After passing the Master's examination, the University of Applied Sciences Nordhausen awards the degree "Master of Engineering", abbreviated to "M.Eng."

§ 3

Admission requirements

- (1) The general admission requirements are laid down in the Admission Regulations of the University of Applied Sciences Nordhausen.

- (2) Prerequisites for admission to the program are also:
 1. proof of completion of a suitable course of study as a Bachelor of Engineering or Bachelor of Science with a total of 210 ECTS - credit points in accordance with the "European Credit Transfer and Accumulation System" - European System for the Recognition, Transfer and Accumulation of Study Achievements (ECTS) or as a Diplom-Engineer at a university of applied sciences or university with a scope of 240 ECTS credit points.

 - or

 2. proof of a suitable Bachelor of Engineering or Bachelor of Science degree with 180 ECTS credit points according to the "European Credit Transfer and Accumulation System" (ECTS).

In deviation from § 4 (1), the enrolment of the students mentioned under point 2 can already take place in the winter semester, in connection with the requirement to provide a qualification of 30 ECTS credit points. The qualification can be achieved via:

- a) an industrial internship of at least 18 weeks qualifying as an engineer-scientist. The contents of the internship shall be described in an internship report and shall be defended in a colloquium. The credit points to be achieved with this qualification build-up are broken down as follows:

Internship: 18 ECTS credit points
Internship Report: 9 ECTS credit points
Colloquium: 3 ECTS credit points.

The colloquium and the internship report must be completed by the beginning of the first semester; The repeatability applies to the regulations from § 14 of the examination regulations.

or

- b) a qualifying engineer-scientific professional activity with a minimum duration of 6 months. The contents of the work shall be described in a work report which shall be defended in a colloquium. The credit points to be achieved with this qualification are broken down as follows:

Professional activity 24 ECTS credit points
Work report 6 ECTS credit points.

or

- c) the successful completion of a qualification semester at Nordhausen University of Applied Sciences with at least 30 ECTS credits.

Further details are regulated by the course-specific annexes to these regulations.

- (3) To be admitted to a master's programme in the Department of Engineering at Nordhausen University of Applied Sciences, a qualified degree is required.

A qualified degree is awarded if the applicant is one of the best 35% of the graduates in his or her programme. If an ECTS grading table according to the ECTS Users' Guide is used, it will be interpolated linearly to determine the intermediate grade up to which the student is to be assumed to belong to the best 35% of the graduates of the course, assuming equal distribution of the intermediate grades within a grade class.

A qualified degree is given if the overall grade is 2.5 or better; if the overall grade is not based on the grading system applicable to the Master's programme at Nordhausen University of Applied Sciences in accordance with the examination regulations, the overall grade is converted into this grading system.

If proof of the degree is not possible by the end of the application period, admission may be granted on condition that proof of the degree is furnished within a period to be determined by the Dean of Studies.

- (4) For students of a German-language degree programme whose native language is a language other than German and who have not completed their higher education entrance qualification or their first degree in German, proof of sufficient knowledge of German is a DSH-2 certificate (Deutsche Sprachprüfung für den Hochschulzugang ausländischer Studienbewerber - German Language Examination for Admission of Foreign Students) or Level 4 in each skill in the test "Deutsch als Fremdsprache" (TestDAF), the passed examination part "Deutsch" in the context of the Feststellungsprüfung an Studienkollegs or a German Language Diploma (Level II) of the Kultusministerkonferenz (DSD II), further admission requirements.
- (5) Students of an English-language degree programme whose mother tongue is a language other than English and who have not completed their higher education entrance qualification or their first degree in English are required to prove sufficient knowledge of English at level B2 of the Common European Framework of Reference for Languages.
- (6) Suitable studies in the sense of paragraph 2.1 or 2.2 are considered to be the degrees listed in the programme-specific annexes to this regulations. In the case of qualifications not listed, the board of

examiners decides on suitability. The examining Board shall decide whether the other requirements set out in paragraphs 2 to 5 have been met.

- (7) If applicable, further admission requirements are listed in the course-specific annexes.
- (8) In cases of doubt, the appropriate examination board decides whether the admission requirements pursuant to paragraphs 3, 4, 5, 6 and 7 are fulfilled.

§ 4

Start and duration of studies

- (1) As a rule, studies begin with the summer semester. Courses are usually offered on an annual basis. Students who change their place of study and students with a prerequisite according to § 3 paragraph 2 number 2 can also enroll in the winter semester.
- (2) The standard period of study, including all examinations, is three semesters, or four semesters if the prerequisite for admission according to § 3 Para. 2 No. 2 is fulfilled.

§ 5

Scope of studies and weighting of examination performance

- (1) The study volume in the first two semesters amounts to a total of 60 ECTS credit points. In addition, there is the Master's thesis with 26 ECTS credit points and its defense with 4 ECTS credit points.
- (2) For the successful completion of the study 90 ECTS credit points must be compiled according to the ECTS.
- (3) The examination performances to be achieved are weighted in the calculation of the grade of the Master's examination according to their share in the total number of 90 ECTS credit points.

§ 6

Structure, content and procedure of the studies

- (1) The course has a modular structure. Modules can consist of several study units, which are thematically and temporally coordinated. Further details can be found in the study plan (see study program specific annexes).
- (2) The modules differ between mandatory and optional modules. The compulsory elective modules approved for the course of study are announced by a notice before the beginning of the semester.
- (3) The Master's thesis is a scientifically demanding work to be completed in the last semester of study. The processing time is usually five months.
- (4) The prerequisites for admission to the Master's thesis and the Master's Colloquium are regulated in the examination regulations for the Master's programmes with 90 ECTS credits in the Engineering Faculty.

§ 7

Types of events, forms of teaching and learning, proof of attendance

- (1) Basically, the following forms of teaching and learning can be considered during the course of study:
 - Lecture (V);
 - Exercise (Ü)
 - Seminar (S)
 - Internship (P)
 - Project work (Pr).
 - a. Lecture:
It serves the coherent presentation of a subject matter and the deepening of facts and methods.
 - b. Practice:
Teaching materials and contexts are systematically worked through and applied to practical cases. Under guidance, students work individually or in groups on solutions to given problems.
 - c. Seminar:
Here the development of special expertise and facts as well as the processing of complex problems takes place in alternation of lecture, presentation and discussion.
 - d. Internship:
It serves to acquire, supplement and deepen knowledge and finished products by working on practical experimental tasks.
 - e. Project work:
Here, a larger task is processed by a group or an individual. The processing takes place in the form of a laboratory, programming or homework under regular control by the teacher or lecturer. If the task is carried out externally, i.e. in an institute or a company, an agreement must first be reached between the institution and the teacher or lecturer on the assignment and the scope of work.
- (2) The types of events are determined by the module manager and are anchored in the module manual. They are coordinated in terms of content and timing and are designed in such a way that students learn to work independently and scientifically as early as possible. In addition to imparting specialist competence, the courses promote responsible scientific and practice-oriented attitudes and behaviour.
- (3) In special cases, the courses can also be offered as block courses.
- (4) If the examination regulations for the Master's programmes with 90 ECTS credits in the field of Engineering provide for proof of attendance, the lecturer responsible for the course will determine the conditions for its issue.
- (5) As an integral part of the course of study, academic self-study plays a particularly important role in all phases of education in promoting critical, methodical and creative thinking and the ability to work independently on complex tasks. In the subject counselling (cf. § 9 Para. 2) problems of self-study are also discussed with the students. The content and scope of the courses are designed in such a way that they can be prepared and followed up by the students.

§ 8

Study plan, module manual

- (1) On the basis of these study regulations, study plans are drawn up for the individual study programmes and attached as annexes. They guarantee the proper structure of the studies and contain:
 - the modules,
 - the choice options via the mandatory elective modules,
 - the number of semester hours per week per course,
 - the type of event (V, Ü, S, P, Pr),
 - the ECTS credits (CP) awarded for the modules,
 - the type of examination.
- (2) The description of the contents of the courses/test areas can be found in the module handbook of the Master's programmes of the Department of Engineering at the University of Applied Sciences Nordhausen.

§ 9

Student counselling

- (1) Guidance for students is provided by the general student counselling service of the Nordhausen University of Applied Sciences. It covers questions of study suitability and, in particular, information on study opportunities, study contents, study structure and study requirements. It also includes psychosocial counselling in the event of personal difficulties caused by the student's studies.
- (2) The department is responsible for advising students on their studies. It supports students especially in questions of study design and study techniques.
- (3) The use of study counselling is particularly recommended in the following cases:
 - at the beginning of studies,
 - in the planning and organisation of studies,
 - if you have difficulties during your studies,
 - before and after a longer interruption of studies,
 - in the event of failure to pass examinations,
 - before a planned termination of studies.

§ 10

Regulations for students with childcare and care responsibilities, disability or chronic illness

The specific needs of students with childcare and care responsibilities as well as of students with disabilities or chronic illnesses will be adequately taken into account in the design of the course of studies and in the provision of evidence of achievement.

§ 11

Equality Regulations

Designations of status and functions in this order apply to people of all genders.

§ 12

Coming into effect and publication

- (1) These study regulations come into effect on the day following their publication in the official announcements of the Nordhausen University of Applied Sciences.
- (2) These study regulations apply to students who are enrolled for the first time in a technical/scientific Master's programme from the winter semester 2020/21 onwards.

Nordhausen, 15. April 2020

President

University of Applied Sciences Nordhausen

Dean

University of Applied Sciences Nordhausen

Department of Engineering Sciences

Appendix 3: Renewable Energy Systems course of studies

One of the major challenges of the 21st century is to ensure a secure and environmentally sound energy supply in the face of increasing global energy demand, dwindling fossil resources and progressive climate change. Increased use of renewable energy sources is a way of meeting these challenges. This requires engineers with global qualifications who have a broad knowledge of the energy industry, business administration, social and political framework conditions and renewable energy systems.

The study course Renewable Energy Systems at the University of Applied Sciences Nordhausen is intended to enable students to pursue a profession as Master of Engineering. Its graduates can use scientific methods to analyse energy problems, develop technological and business solutions and make appropriate decisions.

The programme is aimed at German and foreign students with good English language skills. The modules of the program are held in English (with the exception of the module "German as a Foreign Language"). If the Bachelor's degree was not obtained at an English-speaking university, the applicant must prove at least language level B2 according to the Common European Framework of Reference for Languages. Proof is provided by the certificate of higher education entrance qualification or TOEFL, IELTS, TELC as well as comparable certificates.

According to § 3 para. 2, the admission to the course of studies Renewable Energy Systems is subject to the following Bachelor's degrees:

- Mechanical engineering
- Electrical engineering
- Energy Technology
- Regenerative energy technology

According to § 3 paragraph 7, the following additional admission requirements apply to the course of studies Renewable Energy Systems:

- (1) The program is admission restricted. The number of admissions is determined by the Statute for the determination of admission numbers in courses of study with restricted admissions at Nordhausen University of Applied Sciences
- (2) If the number of applications exceeds the number of available study places, the study places will be allocated according to the grade of the Bachelor's degree. The following criteria each lead to an upgrading of the Bachelor's grade to the indicated extent:
 - a. Applicants with 210 ECTS credit points will receive a grade upgrade of 0.2.
 - b. Applicants with proven scientific publications (bachelor thesis, scientific article) receive a grade upgrade of 0.1.
 - c. Applicants with proven basic knowledge of the German language (language level A1 according to the Common European Framework of Reference for Languages) will receive a grade increase of 0.1.
- (3) In accordance with § 3 paragraph 2c, students with a Bachelor of Engineering or Bachelor of Science degree with an amount of 180 ECTS credit points must successfully complete the qualification semester RES.

Study plan Renewable Energy Systems (M.Eng.)

Course of studies Renewable Energy Systems (M.Eng.)

Qualification Semester RES

| Q. Semester (Winter semester) | SWS V/Ü/Pr | CP | PA |
|--|---------------|-----------|----|
| Basics in Electrical Engineering (870) | 4/0/0 | 5 | PL |
| Basics in Thermal Engineering (871) | 4/0/0 | 5 | PL |
| Introduction in Renewable Energy Systems (872) | 4/0/0 | 5 | PL |
| Scientific Practice (873) | 4/0/0 | 5 | PL |
| Cultural Studies and Scientific Writing (907) | 4/0/0 | 5 | PL |
| German as a Foreign Language (908) | 4/0/0 | 5 | PL |
| Subtotal | 24 | 30 | |

Mandatory area

| 1. Semester (Summer semester) | SWS V/Ü/Pr | CP | PA | 2. Semester (Winter semester) | SWS V/Ü/Pr | CP | PA |
|--|---------------|-----------|----|--|---------------|-----------|----|
| Bioenergy Systems I (854) Solid Biomass | 4/0/0 | 5 | PL | Bioenergy Systems II (855) Biogas and Liquid Biofuels | 4/0/0 | 5 | PL |
| Photovoltaic Systems (852) | 4/0/0 | 5 | PL | Solar Thermal Lab (859) | 2/0/2 | 5 | PL |
| Wind Power Plants (851) | 3/0/1 | 5 | PL | Lifecycle Analysis of Renewable Energy Systems (856) | 4/0/0 | 5 | PL |
| Project Management (568) | 0/0/4 | 5 | PL | Scientific Project (858) | 0/0/8 | 10 | PL |
| Deutsch als Fremdsprache (910) | 0/0/4 | 5 | PL | | | | |
| Obligatory Elective Course | 4 | 5 | PL | Obligatory Elective Course | 4 | 5 | PL |
| Subtotal | 24 | 30 | | | 24 | 30 | |

| 3. Semester | CP |
|--------------------------|-----------|
| Master Thesis (860A) | 26 |
| Master Colloquium (860B) | 4 |
| Total | 30 |

Obligatory Elective Courses

| Module Name | SWS V/Ü/Pr | CP | PA |
|---|---------------|----|----|
| Bioengineering (864) | 4/0/0 | 5 | PL |
| Climate Change (866) | 4/0/0 | 5 | PL |
| Numerical Methods in Heat and Mass Transfer (867) | 2/2/0 | 5 | PL |
| Fuel Cell Technologies (863) | 4/0/0 | 5 | PL |

Explanation of abbreviations:

| | | | |
|-----|-------------------------|----|---------------------|
| SWS | Semester hours per week | CP | Credit points |
| V | Lecture | Ü | Practice |
| Pr | Internship | PA | Type of examination |
| PL | Examination | | |