

# Anhalt University of Applied Sciences

## STUDY AND EXAMINATION REGULATIONS

for the award of the academic title

### MASTER

in the degree course

### MEMBRANE STRUCTURES (FMS)

dated 26.06.2013

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The following study and examination regulations are approved in accordance with §§ 67 section 3 no. 8 and 77 section 2 no. 1 and § 13 section 1 of the Higher Education Act in the State of Saxony-Anhalt in the version dated 14 December 2010 (GVBl.LSA no. 28/2010 p. 600).<sup>1</sup>

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<sup>1</sup> In the interests of legibility all personal, official and functional designations are in the masculine form; all masculine wordings apply to the feminine form, also

I.  
**General part**

**§ 1**

**Entry requirements and start of the degree course**

(1) Qualification for the degree course must be proven in accordance with the Higher Education Act in the State of Saxony-Anhalt. The entry requirement is a qualified university degree in the degree courses of civil engineering, architecture, geo-informatics, mechanical engineering, textile engineering or comparable degree courses with a standard course length of 8 semesters and 240 credits as specified in the profiles applicable to these university degrees and also at least one year of professional work in the aforementioned fields. Other degree courses or shorter standard course lengths may be approved on an exceptional basis, subject to ascertainment of aptitude by the examination committee with personal interview and curriculum. In this case an additional requirement shall be the completion of additional modules during the first semester. The degree course is restricted to 25 participants per enrolment year.

(2) The course of studies shall be held in the English language. Proof must be provided that the applicant is sufficiently skilled in the English language, e.g. in the certificate of university entrance qualifications, insofar as the degree certificate for the first course of studies was not issued by an English-language university. It is expected that applicants shall satisfy the language standard B2 (Common European Framework of Reference).

(3) The degree course shall begin in the summer semester in each case.

**§ 2**

**Structure and purpose of the degree course, purpose of the examinations**

(1) The degree course has a modular structure; a module is considered to be a section of teaching and learning that is coherent in content and must be completed by an examination or another reviewable study component. The individual modules are listed in appendix 4 to this regulation.

(2) Credits shall be issued for the successful completion of each module, the professional internship and the master thesis. The number of credits shall be based on the average workload that the student must complete in each individual module. One credit as defined in the European Credit Transfer System (ECTS) corresponds with a workload (by participation in courses and lectures, preparation and follow-up, private study, examination preparation, completion of study and examination components) of 25 to 30 hours. Credits are awarded without decimal points; at least 5 shall be awarded per module. The content of each module must be designed in such a way that it can be taught in most cases within the period of one semester or one year. 15 credits must be acquired each semester, corresponding with a workload of 375 to 450 hours per semester.

(3) The purpose of the degree course is to enable graduates through teaching of extensive knowledge of, and skills in, membrane structure to apply advanced scientific methods and insight within an interdisciplinary framework, to recognise problems and to develop solutions. Building on the first university degree, the degree course shall guarantee in-depth education in membrane structure and knowledge of its most common areas of application and/or research. The student engineers shall be enabled to create membrane constructions within the area of their

basic education. All participants will be instructed in the complexity of membrane structure from its design, its structural calculation, construction, maintenance and general economic conditions. Given that planning procedures applied in various disciplines of architecture and engineering merge within this framework, a crucial objective of this interdisciplinary, technically complex, special field is to create mutual understanding for positions and methodologies in other fields. The degree course has a scientific slant and is application-based. The qualification enables graduates to accept demanding executive positions within the industry and also to commence doctoral studies.

(4) The master examination represents the conclusion of the academic Programmeme in the postgraduate degree course of membrane structures. It is used to ascertain whether the candidate has indeed acquired the practical and theoretical skills, possesses a circumspect understanding of the specialist contexts and is in a position to apply the scientific methods and insight. It is intended to verify that the candidate is in a position to present in dispute scientific insight in a clear language.

(5) The master examination consists of module examinations (see appendix 4) and the master thesis. Proof of results and certificates of attendance as specified in appendix 4 are required as preconditions for admission to a module examination. In the proof of results the students document the acquisition of knowledge, skills and competencies acquired in a specific manner suitable for the subject in question, as defined by the examiners in a suitable manner and in dependence on the nature of the courses and the number of students. Information thereon shall most commonly be announced no later than at the start of the semester.

(6) No more than one examination component shall be completed per module; its result shall be included in the degree certificate. The examinations are intended to ascertain whether the candidate has a command on the content and methods of the module in their crucial contexts and is in a position to independently apply the knowledge, skills and competencies acquired. Grading takes place according to § 17.

(7) Modules can also be completed successfully without an examination; this must be confirmed by certificates of attendance or performance. Grading shall be 'passed' or 'failed'; accordingly, the module shall not be included in the final grade of the master examination as specified under § 26.

**§ 3**

**Master degree**

Following successful completion of the master examination the Faculty of Architecture, Facility Management and Geoinformation (AFG) shall award the academic title.

**Master of Engineering  
(M.Eng.).**

In addition the Anhalt University of Applied Sciences shall award a certificate with the date upon which the last examination component was completed. § 19 shall otherwise apply.

**§ 4**  
**Standard course length and structure of the degree course**

(1) The standard course length within which the degree course can be completed is 4 semesters, including the master examination.

(2) The periods of studies and the module structure are designed in such a way that the student can most commonly complete the master examination in the fourth semester. Examinations can also be completed prematurely.

(3) At least 60 credits must be completed in the compulsory and the compulsory optional part of the programme, including the master thesis. 240 credits must be proven in the degree courses that are specified as entry requirements, hence achieving a total sum of 300 credits. Outstanding credits can be completed before completion of the master degree course insofar as the prior degree course yielded an insufficient number of credits.

(4) The academic programme includes a 3 week professional internship.

**§ 5**  
**Examination committee**

(1) An examination committee shall be used in order to organise the examinations and to complete and adhere to the tasks with which it is assigned in accordance with these examination regulations. The Scientific Advisory Board appoints the chairman and the members of the examination committee and also appoints its permanent representative. The examination committee shall be comprised of six members: four members of the professorial group, one member as defined under § 33 section 1 no. 2 to 3 Higher Education Act in the State of Saxony-Anhalt and one student. The chairman and deputy chairman are members of the professorial group. The student representative shall only participate in the assessment and transfer of course and examination components in an advisory capacity.

(2) The examination committee shall report on a regular basis to the Scientific Advisory Council as concerns the development of examinations and course lengths and shall provide input on the reform of these examination and study regulations; in this, particular importance shall be apportioned to the aspect of standard course length adherence and examination period adherence. The committee shall address appeals procedures.

(3) The examination committee shall pass its resolutions by a majority of valid votes cast; abstentions shall be considered not cast. In the event of a tied vote the vote cast by the chairman shall be decisive. The examination committee shall have a quorum insofar as a majority of its members – including the chairman or the deputy chairman and a further professor – are in attendance. Rulings may be passed by written vote in the event of particular urgency.

(4) The members of the examination committee shall remain in office for a period of four years; the student representative shall remain in office for one year.

(5) Meetings of the examination committee are not open to the public.

(6) The examination committee shall define rules of procedure. Minutes shall be taken as concerns the meetings of the examination committee; these must specify the

main objects of discussion and the resolutions passed by the examination committee.

(7) The examination committee is entitled to transfer powers to the chairman and the deputy chairman. This shall not apply to rulings on appeals and activity reports to the Scientific Advisory Council. The chairman shall prepare and execute the resolutions of the examination committee. He shall report regularly to the examination committee on his activities.

(8) The members of the examination committee are entitled to attend the examinations as observers.

(9) The members of the examination committee and their permanent representatives are sworn to secrecy. The chairman must swear them to secrecy in the event that they do not act in a capacity as civil servants.

**§ 6**  
**Examination Office**

The examination committee has its headquarters in the Examination Office. The departmental head is responsible for all organisational tasks and registrations for examinations and examination sections. The Head of the Examination Office shall inform the examination committee on adherence to the examination periods and adherence to the entry requirements on the part of the students.

**§ 7**  
**Examiners and assessors**

(1) The examination committee shall appoint the examiners and assessors (examination board). Members and associates of this or other universities and other persons experienced in professional training and practice may be appointed examiners. Examiners must be habilitated. Persons may only be appointed as assessors if they possess at least the qualification to be ascertained by means of the examination or an equivalent qualification.

(2) The examiners act on their own discretion.

(3) At least two persons shall be appointed in accordance with section 1 for oral examinations. § 14 section 3 shall apply additionally.

(4) The examination committee shall ensure that the names of the examiners and the place and time of the module examination shall be announced to the students in accordance with the general semester plan at the Anhalt University of Applied Sciences or the faculty module plan.

(5) § 5 section 9 shall apply accordingly to the examiners.

**II.**  
**Study advisory, periods of studies, curriculum**

**§ 8**  
**Study advisors**

(1) The general provision of study advice at the Anhalt University of Applied Sciences shall inform prospective students on the opportunities for academic programme, degree qualifications, entry requirements, entry restrictions, terms of degree courses and the curricula, structure and requirements of an academic programme. The advice it provides shall be based on individual study affinities.

(2) The faculty in question shall provide specific advice and shall support students through the provision of tailored advice in each subject over the progression of a degree course, in particular on the various options available over the progression of an academic programme and in the event of disruptions over the course of an academic programme. At the end of the first semester the study advisor will seek feedback on the study developments so far, inform the student and shall, when necessary, conduct a session of study advice.

(3) The faculty shall appoint a professor with the role of student advisor.

## **§ 9 Study plan and curriculum**

(1) The study plan of courses and lectures in the individual semesters shall apply to the degree programme (appendix 4). It shall be structured to suit the academic programme's objective and shall be considered an integral element of these regulations. It contains a recommendation for the sequence within which a degree course shall be completed and specifies the number of weekly lecture hours per module and the credits that shall be acquired therein.

(2) The study plan specifies compulsory modules and compulsory optional modules. Compulsory modules are binding for all students. Compulsory optional modules are those that are offered alternatively as individual or group modules. Each student must select a number of these modules, depending on what is prescribed in the study plan and on recommendation of the study advisor. The selection of compulsory optional modules can be defined in more precise terms before the start of each semester, subject to a resolution by the Scientific Advisory Committee.

(3) Students are entitled to enrol in additional modules in addition to the compulsory and compulsory optional modules. Additional modules are such as are not mandatory in order to achieve the degree programme objective. Students may select such modules from the entire range of academic programme offered at the university.

## **§ 10 Teaching forms**

(1) Courses are taught with a focus on application and on a scientific basis. The curricula are taught by means of lectures, seminars, exercises, projects, internships and excursions.

(2) Lectures are used to present the fundamental contexts and to systemise theoretical knowledge and methodology of scientific work. They elucidate defined subject areas by drawing on recent research results depicted in a clear form.

(3) Curricula are conveyed in seminars by phases of dialogue and discussion between the teachers and the students.

(4) Exercises are used to systematically work through the teaching material. Teachers guide these events, present tasks and offer assistance for solutions. The students work individually or in groups.

(5) Internships confirm and solidify the knowledge acquired theoretically by drawing on trials, experiments and simulations. Skills and competencies must be developed in the handling of special software, measurement

equipment and/or the application of measurement methods. Students generally work in groups.

(6) In projects, students contribute to processing, analysing and solving problems from the immediate sphere of professional applications under the supervision of authorised examiners and also by working under conditions they organise themselves along the lines of small groups.

(7) Excursions are integral elements of the academic courses. They are used to enlarge on the curricula and on contact with the professional world over the course of the degree programme; they also serve as familiarisation with, and to help assess, current problems faced by companies and authorities in a certain region.

(8) In some cases lectures, seminars, exercises and projects may be structured to wholly or partially involve multimedia applications and be offered as online courses; this shall be specified separately in the study plan (appendix 4). A multimedia PC with Internet connection is necessary in order to take part in online courses. The student is required to provide this technical equipment.

## **§ 11 Mobility window**

- n/a -

## **III. Transfer of credits for study periods, examination components, assessment and crediting of examination components, procedural regulations**

### **§ 12 Transfer of credits for study periods, degree course and examination components and their crediting**

(1) Subject to application, study periods, degree course components, credits and examination components in the same degree course at a different university in an area governed by the German constitution shall be credited.

(2) In accordance with the Lisbon Convention, study periods, degree course components, credits and examination components that are not subject to section 1 shall be credited on application, provided that no substantial differences are ascertained. In this, an overall assessment and overall evaluation shall be applied in place of a schematic comparison. The equivalency agreements approved by the Conference of the Ministers of Cultural Affairs and the Conference of University Rectors and also the specifications defined within the framework of university partnerships must be taken into consideration.

(3) Sections 1 and 2 shall apply accordingly to the transfer of study periods, degree course components, credits and examination components in state-certified distance-learning degree courses.

(4) Validated, equivalent competencies and skills acquired outside of the university sector can, subject to application, be transferred with one half of the credits designated for the degree course; the examination committee shall rule thereon on the proposal of the party responsible for the module and/or the study advisor in individual cases.

(5) The examination committee shall be responsible, in cooperation with the faculty representatives, for the transfer of components as defined under sections 1 to 4.

Negative rulings must be reasoned in writing in each case. The Enrolment Office of the Anhalt University of Applied Sciences may also transfer study periods as defined in sections 1 to 3.

(6) Insofar as study components and examination components are transferrable, the grades - provided that the grade systems are comparable - shall be transferred and incorporated in the final grade. If necessary the grades shall be converted as specified under § 17. Insofar as the grade systems are not comparable, the module shall be incorporated without grade and marked as 'passed': it is therefore not included in the final grade of the master examination in accordance with § 26.

(7) There shall be a legal entitlement to transferral insofar as the preconditions as specified under sections 1 to 3 are fulfilled. The transfer of study periods, degree course components, credits and examination components completed within the scope of the German constitution shall take place through official channels. The student shall be required to submit the documents required for transferal within the applications procedure.

### § 13

#### Registration and admission to examinations

(1) Students shall be required to complete the examinations at the respective time within the standard course length as specified in appendix 4 to this regulation; they shall be considered admitted to the examinations in the regular semesters upon enrolment, i.e. confirmation insofar as compulsory or compulsory optional modules are not conditional upon prior examination components in accordance with this regulation.

(2) Insofar as compulsory or compulsory optional modules are defined as admission requirements, admission to the respective examination shall be considered granted if the positive result of the prior examination component is documented in the Examinations Office on the **tenth** calendar day before the date of the examination.

### § 14

#### Types of examination components

(1) The following types of examination components are possible as specified under sections 2 to 9:

1. Written examination (examination, section 2),
2. Oral examination (section 3),
3. Coursework (section 4),
4. Outline/document (section 5),
5. Talk (section 6),
6. Experimental work (section 7),
7. Project (section 8),

A balanced quota of the different examination types defined under items 1 to 8 should be ensured during the degree course, in particular oral examinations.

(2) In written examinations (examination), students shall confirm that within a limited period of time and with limited tools they are in a position to recognise and solve a problem by applying the standard methods of a subject under supervision. The examination times are generally specified in appendix 4.

(3) The oral examination shall be completed before the examination board as specified under § 7 (1) and (3); it shall be an individual or group examination for up to three students simultaneously. Candidates shall prove within the framework of oral examinations that they are able to recognise contexts as part of the examination subject and are in a position to accurately appreciate specific questions within these contexts. The assessor must be heard before

a grade is set. The assessor effectively performs a control function in order to ensure due procedure during the oral examination and is also responsible for keeping minutes. The substantial objects of the examination and the assessment of the examination performance must be defined in minutes, signed by the examiners and the assessors. The examination time for each examination candidate is defined under appendix 4. The candidates shall be informed of the examination results at the end of the oral examination.

(4) Coursework represents an independently authored treatise on a subject-specific tasks or also on a task that covers several modules; it must be submitted in a form deemed standard for academic papers by a deadline that the examiner shall specify. Independent completion must be declared.

(5) An outline/document involves the processing of a subject-specific task or also a task that covers several modules in a conceptual, constructive and/or draft form, lending particular emphasis to aspects of planning. A document may also be drafted as proof of competency in working equipment, technologies and such like. The students verify therein that they are in a position to use the aforementioned instruments to solve specific tasks within the specialised field.

(6) A talk represents a one-hour appraisal of a problem, drawing on an evaluation of relevant literature, and the depiction of contents and the presentation of results in oral discourse with subsequent discussion.

(7) Experimental work includes the theoretical presentation, structuring and execution of an experiment and the written presentation of the work stages, the sequence of testing, the results of the experiment and their critical appraisal.

(8) Projects represent practical work involving small, supervised groups and independently organised work within the project group to produce autonomous contributions by individual members of the project group. The results are presented and defended jointly in a project report.

(9) - n/a -

(10) The general semester plan at the Anhalt University of Applied Sciences, i.e. the module plan in the faculties, define the periods within which the oral examinations, coursework, documents and written examinations shall be held or submitted. The teaching faculty shall define the periods applicable to other kinds of examinations. The Examination Office must be notified thereof. Deviations from the general examination periods should only take place in justified cases.

(11) Insofar as by medical certificate the student shall prove credibly that he is unable to complete the examination component in part or whole or in the prescribed form due to a prolonged period of illness or permanent disability, the examination committee shall take steps to ensure that he is able to complete an equivalent examination component in a different form. The applicant is required to make any such applications to the examination committee.

(12) Conditional upon application by the examiner, the examination committee may approve suitable forms of examination components involving group work. The contribution made by the individual student as an examination component for assessment must satisfy the requirements placed in the examination and must be clearly delimited and suitable for grading as an individual examination component by means of submitting independently au-

thored sections or other objective criteria. In general the group should not consist of more than three persons.

(13) When dealing with projects, authorised examiners shall be entitled to define other criteria than those specified under section 12 sentence 3.

### § 15

#### Sequence, termination and public nature of the examinations, withdrawal of examination rulings

(1) Examination candidates shall be questioned before the examination commences to ascertain that they are in an adequate state of health. Candidates shall not be entitled to resit the examination until the following semester in the event that their state of health is inadequate.

(2) Students that shall soon take the same examination and other member of the university that register a justified interest shall be entitled to sit in on oral examinations as observers (§ 14 section 3). This shall not extend to consulting and announcing the examination results to the participants.

(3) Observers as defined under section 2 sentence 1 can be excluded on the application of the examination candidate.

(4) The public can be excluded from the examination until the conclusion thereof insofar as their presence impedes the examination. The examination board shall decide on said exclusion. Members of the examination committee shall not be considered public in the aforementioned meaning.

(5) The examination board shall be entitled to terminate the examination without result even during the ongoing examination if said decision is considered necessary in view of the examination candidate's state of health. The examiners shall be entitled to place an application to the examination committee to withdraw the results of the examination insofar as misgivings as concerns the state of health do not arise until after completion of the examination or once the assessment has been announced and such misgivings are confirmed by doctor's certificate. The examination committee shall set a new date in these cases.

### § 16

#### Absence, retirement, deception, misdemeanours

(1) An examination component shall be considered completed and assessed as 'failed' insofar as a student shall, without due acceptance of grounds by the examination committee,

- fail to appear to a designated examination,
- withdraw after the beginning of an examination,
- fail to complete a written examination or an examination as specified under § 14 section 1 items 3 to 8 within the period specified.

(2) The reasons put forward for the retirement or unexcused absence (see section 1) must be submitted to the examination committee immediately and in writing and must be made credible; assessment shall otherwise be issued as specified under section 1. The examination committee shall set a new date in the event that the reasons are accepted.

(3) Insofar as the student attempts to influence the result of the examination component by means of deception (e.g. plagiarism, incorrect citations, etc.) or by using unpermitted aids, the examination in question shall be considered 'failed'. This shall apply also in the event that

the fact does not become known until after the end of the examination or after award of the certificate. This shall be ascertained by the authorised examiners or by the supervisor and shall be filed properly. Students that have culpably violated the examination regulations may be excluded by the authorised examiners or the supervisor from continuing the examination component in question; in these cases the examination component in question shall be graded as 'failed'. The reasons for the exclusion shall be kept on file. § 18 section 1 and § 22 shall otherwise apply.

(4) Insignificant deficiencies in the outer form of the examination component such as writing deficiencies and such like shall not be considered misdemeanours. They may affect the assessment, but shall not automatically lead to an assessment as 'failed'. Substantial deviations such as practical illegibility or illegibility of text sections, the failure to adhere to applicable standards in the layout of scientific papers, the selection of unpermitted text media and such like may lead to the authorised examiners refusing to accept the work. The decision on rejecting acceptance of the work must be filed properly within a period of four weeks following the submission date.

### § 17

#### Assessment of examination components, formation of module grades

(1) In assessing the individual examination components, examiners shall announce the grades of oral examinations immediately once the grade has been set; grades of written examinations shall most commonly be announced within four weeks following the start of the semester for examinations held as part of the general semester plan, i.e. four weeks after the end of the module block. Announcements shall be made via the service portal and shall be in compliance with data protection regulations. The results of examinations in the final subject semester shall be announced within four weeks after the end of the period of lectures.

(2) The following grades<sup>2</sup> shall be used by the respective examiners in order to make an assessment:

1,0;	for 'very	- an excellent performance,
1,3	good'	
1,7;		- a performance that is substantially
2,0;	for 'good'	greater than the average requirements,
2,3		
2,7;		- a performance that in every
3,0;	for 'satisfac-	sense satisfies the average re-
3,3	tory'	quirements
3,7;		- a performance that despite defi-
4,0	for 'sufficient'	ciencies satisfies the minimum
		requirements,
5,0	for 'failed'	- a performance that due to sub-
		stantial deficiencies no longer
		satisfies the requirements.

(3) Examinations are passed if they are assessed with at least 'sufficient'. Insofar as an examination component is assessed by two or more examiners, it shall be considered passed if all examiners assess the performance with at least 'sufficient', 4.0. In the event that the examination component is assessed by two or more examiners, the grade or the examination component shall be calculated as the average of the individual grades.

(4) If the average is as follows, the grade shall be:

up to	1.5	very good,
over	1.5 to 2,5	good,
over	2.5 to 3.5	satisfactory,
over	3.5 to 4.0	sufficient,
over	4.0	failed.

(5) Only the first decimal place behind the point shall be considered in forming the module grade; all other places shall be deleted without rounding off.

#### **§ 18**

##### **Repetition of examinations and coursework**

(1) With the exception of the master thesis (see section V), failed examinations can be repeated twice. An examination repeated on the second occasion shall on all accounts be assessed by 2 examiners as specified under § 7 section 1.

(2) Coursework can be repeated on two occasions. Second repetitions must be assessed by two authorised examiners.

(3) Once passed, it is not permitted to repeat a module examination or coursework.

(4) In general, the nature of examinations as specified under § 14 section 1 is not altered for repetitions.

(5) Failed attempts to complete an examination in the same degree course at other universities shall be transferred to the number of repetitions permitted under section 1.

#### **§ 19**

##### **Degree certificate, certificate, diploma supplement and certifications**

(1) Students must be issued with a certificate in German and English as specified in appendix 2 upon successful completion of the master examination. An application must be placed for the issue of a certificate on the master examination. The certificate shall contain all assessments as defined in appendix 4 and also the credits acquired. The degree certificate (see appendix 1) and the certificate (see appendix 2) shall be signed by the chairman of the examination committee and the dean, while the diploma supplement (see appendix 3) shall be signed by the chairman of the examination committee. The degree certificate confirming award of the master degree and the diploma supplement shall be issued at the same time as the certificate of the master examination. All documents shall bear the date as specified under § 3.

(2) The Enrolment Office shall issue notification in the event that the master examination has been conclusively failed or is considered conclusively 'failed'. Instructions on the right to legal remedy shall be included with the notification.

(3) In the event that the student leaves the university or switches the degree course, he shall be issued on application with a certification that details the examination and study components completed and also their assessment.

(4) A wrongful examination certificate must be withdrawn and replaced with a rightful certificate or a certification as specified under section 3.

#### **§ 20**

##### **Additional module examinations**

(1) In addition to the modules specified under appendix 4, students may also complete additional module examinations.

(2) On application, the results of the additional module examinations shall be included in the correspond-

ing master certificate, but shall not be considered in the specification of the overall result.

#### **§ 21**

##### **Placement examination and special study plans**

(1) A placement examination ... - n/a.

(2) Under the mentorship of the study adviser, special study and examination plans can be agreed with particularly gifted students and such students as possess relevant knowledge and aptitudes with the aim of shortening the degree course and/or achieving specialisation in a specific field. It is also permitted to agree special study plans with students for social or family reasons and to promote top athletes in order to harmonise their requirements with the schedule of studies. These plans must be agreed with the responsible Dean of Studies.

#### **§ 22**

##### **Invalidity of examinations**

In the event that the requirements defined for admission to an examination were not satisfied without the student having sought to deceive, and insofar as this circumstance does not become known until after issue of the certificate, this deficiency shall be remedied upon successful completion of the examination. In the event that admission was acquired by intentionally wrongful means, the examination committee shall rule upon the legal consequences with consideration of the Law on Administrative Procedure in the State of Saxony-Anhalt. Before any ruling is passed the party in question shall be given opportunity to explain the circumstances to the examination committee.

#### **§ 23**

##### **Inspection of the examination files and examination documents**

(1) On application and following each module examination or master examination, each student shall be granted the right to inspect their written examination papers and the examiners' comments noted thereon. The application may be made no later than 3 months following announcement of the examination results. The 1st examiner shall determine the location of inspection in the Anhalt University of Applied Sciences.

(2) An application to inspect the examination files can be made to the examination committee by no later than three months following award of the master certificate. The chairman shall determine the time and place of inspection in the Anhalt University of Applied Sciences.

#### **§ 24**

##### **Adverse rulings, appeals procedures**

(1) An adverse ruling (rejection), in particular with application of §§ 12, 13, 15, 16, 17, 18, 19, 20, 22, 23, 26, 28, 29, 32 and 33 of these regulations, must always be reasoned in writing; instructions on the rights of legal recourse must be added and announced. The student shall be entitled to lodge an appeal with the examination committee against the ruling within a period of one month following announcement thereof.

(2) The examination committee shall decide on the appeal. Insofar as the appeal is in reference to an assessment, the examination committee shall, following review, rule thereon in accordance with section 3.

(3) Insofar as the appeal is in reference to an assessment, the examination committee shall pass on the appeal to the 1st examiner for review. The examination committee shall uphold the appeal in the event that the assessment is altered in line with the application. The examination committee shall otherwise review the ruling only insofar that:

1. the examination procedure was conducted properly,
2. the facts of the examination were presented accurately,
3. the generally applicable principles of assessment were adhered to,
4. the assessment was not influenced by considerations of material irrelevance.

(4) A ruling shall be reached on the appeal within an appropriate period. The notification shall be reasoned, enclosed with an instruction on rights of legal recourse and delivered in the event that the appeal is not upheld.

#### **IV. Master examination**

##### **§ 25 Components of the master examination**

The components of the master examination are:

1. the master thesis,
2. – n/a -
3. the module examinations, i.e. the proof of completion of modules (appendix 4),
4. the preliminary examination components (appendix 4),
5. the professional internship.

##### **§ 26 Final grade of the master examination**

(1) The arithmetic average of the compulsory and compulsory optional module examination grades as specified under appendix 4 is determined with one decimal place in accordance with § 17 section 5. The final grade of the master examination is produced as 0.7 times the grade as specified under sentence 1 and 0.3 times the grade of the master thesis. The final grade is determined with one decimal place in accordance with § 17 section 5.

(2) An ECTS grade is issued additionally:

A	the best	10 %,
B	the next	25 %,
C	the next	30 %,
D	the next	25 %,
E	the next	10 %.

The last 50 graduates in this degree course are considered the minimum reference factor in this scaling.

(3) Insofar as 50 graduates are yet to complete this degree course, the ECTS grade shall temporarily be determined on the basis of the following numerical system:

A	up to	1.3,
B	over	1.3 to 2.0,
C	over	2.0 to 3.0,
D	over	3.0 to 3.7,
E	over	3.7 to 4.0.

#### **V. Master thesis**

##### **§ 27 Purpose of the master thesis**

(1) – n/a –

(2) - n/a -

(3) The master thesis is intended to show that the student is in a position to independently process a problem within a set period, to apply scientific insight, to command an overview of technically complex contents, to produce application and research references and to exercise criticism of methodology. The student should display the competency to engage in interdisciplinary work and also social skills.

##### **§ 28 Topic and period allowed for the master thesis**

(1) The examiners shall set and supervise the topic in English or alternatively in German following consultation with the student. Issue of the topic must be kept on file in the Examination Office. At least one examiner must be a member of the Anhalt University of Applied Sciences.

(2) The professor or the associate setting the topic must supervise the master thesis within the framework of their teaching positions.

(3) The topic of the master thesis must be set in such a way that a period for completion amounting to 20 weeks can be adhered to. The topic can be rejected on one occasion without submission of reasons within a period of four weeks. In this case, a new topic shall be set within four further weeks without transfer of the processing time to date. Subject to consultation with the examiners, the examination committee may extend this processing period to eight weeks in cases of justified exceptions.

(4) The examination committee must appoint the examiners and the chairperson of the examination board at the same time as the topic is submitted to the student; furthermore, the submission date shall be defined and announced in writing to the student. The chairman of the master examination board must be a professor at the Anhalt University of Applied Sciences.

(5) A master thesis may also be approved as group work consisting of no more than three students, provided that the individual contribution of each student submitted for assessment as an examination component permits clear demarcation, definite distinction and assessment on the basis of designated sections, page numbers or other objective criteria and that it satisfies the requirements defined in § 27 section 3 and § 30 section 1.

##### **§ 29 Registration and admission for the master thesis**

(1) The application for admission to the master thesis must be placed with the examination committee. Admission shall be rejected insofar as modules of the 1st and 2nd subject semester have not been completed successfully as specified under appendix 4.

(2) The examination committee shall approve admission and confirm the topic in accordance with § 28.



### § 30

#### Special requirements for a master thesis

(1) The master thesis must come with a declaration that the paper was authored independently, was not submitted in a different degree programme in the same or a similar form and that no other aids and sources than those specified, including the software specified or described, were used. This declaration must be signed by all authors involved.

(2) Two copies of the master thesis must be submitted to the Examination Office at the designated time and in a form deemed standard for scientific publications. A bibliographic summary must also be submitted<sup>2</sup>. The thesis may also be submitted on a data carrier in digital form; specifications hereon must be defined when the topic is set in accordance with § 28.

(3) The date of submission must be kept on file in the Examination Office.

### § 31

#### Assessment of the master thesis

(1) Two written reviews are necessary in order to assess the master thesis. At least one of these reviews must be written by a professor or lecturer at the Anhalt University of Applied Sciences. Reviews must generally be written within a period of four weeks.

(2) The examination committee shall order a further review in the event that one reviewer assesses the paper as 'failed', while the other reviewer returns a positive assessment. Insofar as this additional reviewer returns an assessment of 'failed', the master thesis shall be considered 'failed'. If the assessment is positive, the final assessment shall be the arithmetic average of the individual grades of all three reviews in accordance with § 17 section 4, but at least the grade 4.0 or 'sufficient'.

(3) In the event that the master thesis is not submitted on time without provision of a satisfactory reason, it shall be considered 'failed'.

(4) § 17 section 2 shall otherwise apply to the assessment.

### § 32

- n/a -

### § 33

#### Repetition of the master thesis

(1) In the event that the master thesis is awarded the grade 'failed' or is considered 'failed', the master thesis can be repeated on one occasion with a new topic. The new topic of the master thesis shall be issued within an appropriate period. Insofar as the student fails to apply for a new topic within a period of four weeks following announcement of the grade 5, said right to an examination shall be voided unless the candidate shall bear no responsibility for missing this deadline.

(2) - n/a -

(3) § 18 section 5 applies accordingly.

(4) In the event that a final examination (§ 27) is attempted before the end of the standard course length (see appendix 3), this examination shall be considered not taken in the event that it is failed (free attempt).

## VI.

### Final provisions

### § 34

#### Interim regulations

These examination and study regulations apply to all students that enrol in the degree course in membrane structures from the summer semester 2014. Students that enrolled in the degree course before the summer semester 2014 may submit a written application to the examination committee to study in accordance with this examination regulation.

### § 35

#### Enforcement of the master examination and study regulations

(1) These regulations shall come into force upon approval by the President of the Anhalt University of Applied Sciences on the day of their publication in the "Official Gazette of the Anhalt University of Applied Sciences".

(2) Issued on the basis of the approved examination and study regulations for the degree course in membrane studies dated 04.12.2008 (Official Gazette no. 38/2009 dated 17.03.2009) in connection with the amendment to the articles dated 26.01.2011 (Official Gazette no. 44/2011 dated 26.01.2011). Approved by the President of the Anhalt University of Applied Sciences on 26.06.2013.

(3) Published in the "Official Gazette of the Anhalt University of Applied Sciences" no. 61/2013 on 27.06.2013.

Köthen, 26.06.2013

Prof. Dr. Dr. h.c. Dieter Orzessek  
President of the Anhalt University of Applied Sciences

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<sup>2</sup> See Articles on the Archiving of Student Final Theses dated 17.06.2009; Official Announcements of the Anhalt University of Applied Sciences no. 40/2010 dated 28.01.2010.



Hochschule Anhalt  
Anhalt University of Applied Sciences

## Masterurkunde Master's Degree Certificate

**<Name, Vorname>**

---

Nachname (surname), Vorname (first name)

**TT. MM. JJJJ, Ort**

---

Geburtsdatum (date of birth), Geburtsort (place of birth)

Die Hochschule Anhalt  
Fachbereich  
Architektur Facility Management und  
Geoinformation

verleiht aufgrund der  
bestandenen Masterprüfung im Studiengang

### **Membrane Structures**

den Mastergrad  
**Master of Engineering (M.Eng.).**

Anhalt University of Applied Sciences,  
Department of  
**Architecture, Facility Management and  
Geoinformation**

has awarded the academic degree of  
**Master of Engineering (M.Eng..).**

after the successful completion of examinations  
following a course in

### **Membrane Structures**

**Ort, TT. MM. JJJJ**

(Siegel)

---

**Dekan Prof. Dr. Vorname Name**  
Dean

---

**Vorsitzender d. Prüfungsausschusses Prof. Dr. Vorname Name**  
Chair of the Examinations Committee



Hochschule Anhalt  
Anhalt University of Applied Sciences

## Zeugnis über die Masterprüfung Certificate of Examination for a Master's Degree

**<Name, Vorname>**

Nachname (surname), Vorname (first name)

**TT. MM. JJJJ, Ort**

Geburtsdatum (date of birth), Geburtsort (place of birth)

hat im Fachbereich  
Architektur, Facility Management und  
Geoinformation  
die Masterprüfung im Studiengang  
**Membrane Structures**  
bestanden.

has passed all examinations on the Master's  
programme

**Membrane Structures**

in the Department of

**Architecture, Facility Management and  
Geoinformation**

**Gesamtnote der Masterprüfung**

Final grade of examination for a Master's Degree

**X,y**

**Credits**

**CCC**

**ECTS**

**A...E**

**Ort, TT. MM. JJJJ**

(Siegel)

**Dekan Prof. Dr. Vorname Name**  
Dean

**Vorsitzender d. Prüfungsausschusses Prof. Dr. Vorname Name**  
Chair of the Examinations Committee

**Pflichtmodule**  
Compulsory Modules

**Credits**  
Credits      **Noten**  
Grades

PM 1  
CS 1  
.  
.  
PM n  
CS n

C      X,y  
  
C      X,y

**Wahlpflichtmodule**

Electoral Compulsory Modules

WPM 1  
ECS 1  
.  
.  
WPM n  
ECS n

C      X,y  
  
C      X,y

**Thema der Masterarbeit:**  
Subject of the Master Thesis:

**Masterarbeit**  
Master Thesis

C      X,y

**Zusatzmodule**

Additional Modules

ZM 1  
AS 1  
.  
ZM n  
AS n

C      X,y  
  
C      X,y

Grading scale: very good (up to 1,5); good (1,6 - 2,5); satisfactory (2,6 - 3,5);  
sufficient (3,6 - 4,0)  
s.a. successfully attended  
ECTS: A (up to 1,3); B (1,4 - 2,0); C (2,1 - 3,0); D (3,1 - 3,7); E (3,8 - 4,0)

Notenskala: sehr gut (bis 1,5); gut (1,6 bis 2,5); befriedigend (2,6 bis  
3,5); ausreichend (3,6 bis 4,0)  
e.t. erfolgreich teilgenommen  
ECTS: A (bis 1,3); B (1,4 bis 2,0); C (2,1 bis 3,0); D (3,1 bis 3,7); E (3,8  
bis 4,0)

Bernburg  
Dessau  
Köthen



Hochschule Anhalt  
Anhalt University of Applied Sciences

## Diploma Supplement

### 1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

- |                                   |                      |
|-----------------------------------|----------------------|
| 1.1 Family name / 1.2. First name | «Name», «Vorname»    |
| 1.3 Date, place of birth          | «GebDatum», «GebOrt» |
| 1.4 Student ID number or code     | «Mtknr»              |

### 2. INFORMATION IDENTIFYING THE QUALIFICATION

- |                               |  |
|-------------------------------|--|
| 2.1 Name of qualification     | Master of Engineering (M.Eng.)   |
| 2.2 Main field of study       | Membrane Structures  |
| 2.3 Administering institution | Anhalt University of Applied Sciences,<br>Department of Architecture, Facility Management and Geoinformation |
| 2.4. Language of instruction  | English  |

### 3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

- |                                  |  |
|----------------------------------|--|
| 3.1 Level of qualification       | Master   |
| 3.2 Official length of programme | 2 years  |
| 3.3 Access requirements          | One of the following degrees: Bakkalaureus/Bachelor degree (four years); Magister/Master degree; Diplom in Civil Engineering, Architecture, Geoinformatics, Mechanical engineering, Textile Engineering or in appropriate related field or foreign equivalent. |

### 4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

- |                   |           |
|-------------------|-----------|
| 4.1 Mode of study | part time |
|-------------------|-----------|

#### 4.2 Programme requirements / Qualification profile of the graduate

In the Master's programme for Membrane Structures, students are taught comprehensively in the study of the following disciplines: technical engineering, mathematics and the natural sciences in order to enable the graduates to operate scientifically and responsibly in their future professions. In particular, students will be put in a position to take into consideration new findings in engineering and life sciences and be able to apply the demands in commercial, ecological and safety related components in the membrane industry and its related industry sector.

With this qualification students will have gained knowledge in the subject and have the necessary communication skills in order to:

1. apply their knowledge of processes in **membrane** technology and be able to integrate their ideas and problem solving skills
2. compile, assess and interpret relevant information
3. make sound decisions when discoveries are made which concern social, commercial, scientific and ethical issues

4. sustain the momentum of independent learn processes
5. formulate and argue professional opinions/criteria
6. be able to interact on a professional level with professionals and non-professionals
7. work on an interdisciplinary level and have the capability to take responsibility in a team.

#### 4.3 Programmeme Details

See transcript for list of courses and grades as well as Certificate of Examination for a Master's Degree for subjects offered in final examinations (written and oral), and topic of thesis, including evaluations.

#### 4.4 Grading Scheme

- |               |   |
|---------------|---|
| 1.0; 1.3      | for "very good", an excellent performance,  |
| 1.7; 2.0; 2.3 | for "good", a performance significantly exceeding the average requirements,                         |
| 2.7; 3.0; 3.3 | for "satisfactory", a performance fulfilling the average requirements in every respect,             |
| 3.7; 4.0      | for "sufficient", a performance corresponding to the minimum requirements despite its deficiencies, |
| 5.0           | for "insufficient", a performance not fulfilling the requirements because of severe deficiencies.   |

An ECTS grade according to the following system is additionally granted:

- |   |                         |
|---|-------------------------|
| A | best 10 %               |
| B | next 25 %               |
| C | next 30 %               |
| D | next 25 %               |
| E | last 10 % of Graduates. |

#### 4.5 Overall Classification

Based on Comprehensive Final Examination (Subjects offered in final examination, written and oral: 70 %, thesis: 30 %)

## 5. FUNCTION OF THE QUALIFICATION

#### 5.1 Access to Further Study

Qualifies to apply for admission for a promotion.

#### 5.2 Professional Status

Graduates of the Master's programmeme are competent in all aspects relating to the development of membrane constructions.

This includes the right to hold the professional title of Engineer.

## 6. ADDITIONAL INFORMATION

#### 6.1 Additional Information

no further information provided

#### 6.2 Further Information Sources

About the institution: <http://www.membranestructures.de/>

## 7. CERTIFICATION

This Diploma Supplement refers to the following documents:

Master's Degree Certificate

Certificate of Examination for a Master's Degree

«PruefDatum»

\_\_\_\_\_  
Certification Date

«name»

\_\_\_\_\_  
Chair of the Examinations Committee

## Study and Examination Plan for the Degree Course in Membrane Structures

The study plan specifies the volumes and allocations of the modules to the individual subject semesters within the standard course length. The elements of the master examination are: the compulsory and compulsory optional module examinations, the professional internship, the master thesis. Admission to the examination shall require completion of the prior components as defined in this appendix.

1. Subject semester	Workload			Prior examination component	Type of examination	Duration of the examination	Credits
	V/Ü Present	Üsu-supervised Internet	P				
<b>Pflichtmodule, Compulsory Modules</b>							
CM1 Architecture	40	30			E/B	-	5
CM2 Membrane Programme	40	30			E/B	-	5
CM4 Mechanical and Physical Properties	40	30			M	20 min	5
<b>Ergänzungsmodule, Additional Modules AM<sup>3</sup></b>							
AM 1 Membrane Concepts		30			E/B		(5)
AM 2 CAD Software		30			H		(5)
AM 3 Structural Engineering		30			H		(5)
<b>Sum of 1st subject semester</b>	<b>120</b>	<b>90</b>					<b>15</b>
<b>2nd Subject semester</b>							
<b>Compulsory modules</b>							
CM3 Structural Design and Detail	20	30		IM3	E/B	20 min.	5
CM5 Structural Design Concepts (Dimensioning)	20	30			K		5
<b>Compulsory optional modules (1 must be selected)</b>							
OM 1 Pneumatic Structures	20	30			E/B		5
OM 4 Foldable and Umbrellas	20	30			E/B		
<b>Professional internship, student projects, excursions<sup>4</sup></b>							
Professional internship					H		(5)
Student project 1					PRO		(5)
Student project 2					PRO		(5)
<b>Sum of 2nd subject semester</b>	<b>60</b>	<b>90</b>					<b>15</b>
<b>3rd Subject semester</b>							
<b>Compulsory modules</b>							
CM6 Building Physics	20	30		H	H		5
CM7 Internship Theory,	20	Internship 3 weeks			H		5
<b>Compulsory optional modules (1 must be selected)</b>							
OM 2 Studio Detailing and Patterning	20	30			E/B		5
OM 3 Bionics	20	30			H		
OM 5 Membrane Surveying	20	30			E/B		
OM 6 Experimental Structures		30	20		E/B		
<b>Sum of 3rd subject semester</b>	<b>60</b>	<b>60</b>					<b>15</b>
<b>4th Subject semester</b>							
<b>Master thesis</b>				§ 29	H		15
<b>Sum of 4th subject semester</b>							<b>15</b>
<b>Total sum of degree course</b>	<b>240</b>	<b>240</b>					<b>60</b>

<u>Module component:</u> K	Written examination	<u>Prior examination component:</u> LNW	Performance slip
M	Oral examination	TN 80	Attendance slip 80 %
PRO	Project		
H	Course work		
E/B	Outline/document		
R	Talk		
oP	Completion of the module without examination/grade		

<sup>3</sup> Optional

<sup>4</sup> Optional

**Standard course length**

1st Semester	2 weeks (13 full days) on-site lectures, exercises, internships, excursions	(22) Weeks supervised distance studies, exercises, seminars, projects during the entire semester	15 Credits
2nd Semester	1.5 weeks (8 full days) on-site lectures, exercises, internships, excursions, examinations	(23) Weeks supervised distance studies, exercises, seminars, projects during the entire semester	15 Credits
3rd Semester	1.5 weeks (7 full days) on-site lectures, exercises, internships, excursions, examinations	(23) Weeks supervised distance studies, exercises, seminars, projects during the entire semester	15 Credits
4th Semester	20 weeks master thesis		15 Credits

The module examinations are generally held during the compulsory presence phase, but may optionally take place during studies.