

English translation of the study and examination regulations for the International Master's Programme in Water Engineering, published in the Amtlichen Bekanntmachungen Nr. 21/2023.  
**In the case of contradictions between the German and the English version, the German version applies.**

**Study and Examination Regulations for the International Master's Programme  
in  
Water Engineering  
in the Department of Water, Environment, Construction and Safety  
at Magdeburg-Stendal University of Applied Sciences  
dated 20/11/2023**

On the basis of §§ 13, para. 1, 67a, para. 2, no. 3a and 77, para. 2, no. 1 of the Higher Education Act of Saxony-Anhalt (HSG LSA) in the version announced on 01 July 2021 (German Länder Law Gazette LSA 2021 pp. 368, 369), Magdeburg-Stendal University of Applied Sciences has enacted the following Study and Examination Regulations:

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## I. Programme-Specific Provisions

### § 1 Scope

- (1) These study and examination regulations set out the purpose, content and structure of the study programme and the Master's examination in respect of the International Master's Programme in Water Engineering at Magdeburg Stendal University of Applied Sciences.
- (2) This Master's programme is a consecutive degree programme categorised as having a practice-oriented profile. It is taught as a full-time, on-campus study programme.
- (3) The language of tuition is English.

### § 2 Programme objective

- (1) The objective of the course of studies is for students to acquire thorough professional expertise and the ability to work independently in accordance with scientific methods, to independently familiarise themselves with the many diverse tasks relating to employment in professional practice, research and/or teaching, and to deal with the frequently changing tasks that arise in the professional life of an engineer working in water management. The course conveys specialist knowledge in the field of water management. Depending on the individual focus of the various modules in their study profile, graduates will gain knowledge and skills in the following areas of water management: global water resource management, national and international water management planning processes, drinking water supply and wastewater disposal, hydrology, hydraulic engineering, waste technology, hydraulic research, groundwater management issues, water chemistry, restoration ecology, biotechnology, river morphology, flow and process modelling and in social and cultural areas. The students will be enabled to critically reflect upon societal processes and to help shape them in a responsible and democratically-aware manner. Possible professional outlets for graduates of this programme include: international consulting firms, engineering and planning offices, specialist authorities, water management associations, maintenance associations, scientific organisations and institutes

### § 3 Academic degree

After successful completion of the required module examinations including the Master's thesis *and defence*, Magdeburg-Stendal University of Applied Sciences will award the academic degree of

***Master of Engineering***  
*abbreviated: M. Eng..*

### § 4 Admission to the programme

- (1) The requirement for admission to a Master's degree programme at a university is evidence of a Bachelor's degree or a 'Diplom' degree from a university, or a comparable

qualification from a state or state-approved university of cooperative education, a 'Magister' degree or a programme of studies completed by a state examination.

- (2) Additional admission requirements for this international Master's degree programme are that the first degree as mentioned in (1) above must have been passed with a grade of good or very good ( $\leq 2.0$ ) and must be in the subject of Water Management, Civil Engineering or a closely related subject. Decisions on graduates in other subject areas or in case of doubt will be made on a case-by-case basis by the board of examiners.
- (3) If the first degree is a Bachelor's degree as mentioned in (2) above, as a general rule the holder must have acquired 210 credits.
- (4) If the holder has only 180 credits, the board of examiners must make stipulations regarding the acquisition of the missing skills and competences equating to 30 credits. Candidates must provide evidence of having met these stipulations before registering to write their Master's thesis.
- (5) Equivalent skills and competences that were acquired either within or outside of higher education and for which evidence has been provided may be accepted by the board of examiners for admission to the study programme upon written application by the candidate. These include:
  - Elective modules from an earlier degree course
  - Professional experience / vocational activity following the acquisition of the first academic degree.
- (6) Evidence of adequate knowledge of the English language at higher education entrance qualification level. This corresponds to level B2 of the Common European Framework of Reference for Languages (CEFR).
- (7) The proof of language skills can be provided through the German university entrance qualification, provided that this is able to show sufficient knowledge of the English language. For all other applicants, the language skills must be evidenced by an internationally recognised language certificate or equivalent proof. These include:
  - IELTS exam - 5 points or
  - Cambridge exam - First Certificate in English FCE (A-C) or
  - TOEIC - 541 points or
  - TOEFL iBT - 87 points (computer-based) or
  - UNiCert II or
  - ALTE level - Level 3 or
  - equivalent tests.
- (8) In the case of university entrance qualifications from Australia, Great Britain, Ireland, Canada, New Zealand or the United States or a degree programme completed there, no additional evidence of English language skills is required.
- (9) Applicants may be exempt from providing evidence of their English language skills if they were taught in a bilingual school (to at least the end of year 10), they are native speakers, or can show evidence of a period of at least half a year spent at an English-speaking school, university or other institution, or can provide evidence that their first academic degree was obtained on an English-language study programme.

- (10) Certificates and other forms of proof must be submitted in German at Magdeburg Stendal University of Applied Sciences.

### **§ 5 Duration and commencement of the programme**

- (1) The course of studies is organised as a full-time programme so that, including the Master's thesis and defence, it can be successfully completed within the standard period of study of 3 semesters.
- (2) In order to ensure equality of opportunity and to compensate for any disadvantages, individual agreements may be reached concerning the standard duration of study. It is also possible to apply on an individual basis to study part time. Further regulations regarding this can be found in §§ 10, 11 and 19.
- (3) The course is scheduled to begin in the summer semester.

### **§ 6 General information on modularisation**

- (1) The study programme is divided into modules. The modules consist of thematically self-contained study units. Modules are generally concluded with an examination, the result of which contributes to the final degree classification. Examinations are taken alongside the respective modules, either during or at the end.

In accordance with the European Credit Transfer System (ECTS), a certain number of credits will be given at the end of each successfully completed module. A module usually comprises at least five credits.

The awarding of credits does not necessarily require an examination, but rather the successful completion of the relevant module (attendance certificate). More specific details are provided by § 18 para. 9.

- (2) The number of credits is governed by the average workload (total effort) required of the students for the respective module. In accordance with the European Credit Transfer System (ECTS), one credit corresponds to a student workload, either in class or in independent study, of 25 to a maximum of 30 hours, with the total credits required for this study programme being set out in § 7 para. 1. One credit includes participation in classes, preparation and follow-up, independent study, preparing for examinations and completing assessments and examinations. Only whole credits can be awarded. The content of a module must be fixed in such a way that as a rule it can be taught within a single semester or a year. If studying full time, 30 credits must be obtained per semester. This corresponds to a workload of 750 to 900 hours per semester.
- (3) The modules are categorised as either compulsory, compulsory elective or voluntary elective modules.
- (4) The designation compulsory module applies to all modules which are necessary for the successful completion of the programme in accordance with the examination and study regulations.
- (5) The designation compulsory elective module applies to all modules, which the students are able to select from a certain number of modules as set out in the Standard Curriculum and Examination Schedule. Within the chosen course of studies, these modules facilitate the pursuit of individual inclinations and interests while simultaneously allowing for the development of field-related knowledge in the students' subsequent field of employment.

Students must register for a specific compulsory elective module no later than four weeks after the beginning of the respective semester, in the departmental dean's office. For a module to be offered, a minimum participation of 5 students is required. Upon written application by the student to the board of examiners, in agreement with the programme leader / academic advisor, modules from other programmes may be approved as compulsory electives.

- (6) All modules that the students complete at their own discretion in addition to the compulsory and compulsory elective modules that form part of the range of modules offered by Magdeburg-Stendal University of Applied Sciences are designated voluntary elective modules. The students are free to take examinations in these voluntary elective modules. More specific details are provided in § 25.

### **§ 7 Organisation of the study programme**

- (1) Depending on the compulsory elective modules taken, the total amount of time needed to successfully complete the courses required by the study programme amounts to between 45 and 60 weekly semester periods. A total of 90 credits must be obtained to successfully complete the programme, whereby 1 credit equates to a workload of 30 hours. For this purpose, it is necessary to pass a certain number of compulsory elective modules. The contents of the modules offered in the study programme are set out in detail in the module handbook. The structure of the module handbook corresponds to the criteria in the catalogue of Quality Criteria for Teaching and Learning at Magdeburg-Stendal University of Applied Sciences. The modules, their recommended distribution across the semesters, the number and types of courses, the examinations that must be taken and the allocation of credits to the individual modules can be found in the Standard Curriculum and Examination Schedule contained in the appendix. The study programme (1st and 2nd semesters) takes place at Magdeburg-Stendal University of Applied Sciences. The "Master's thesis" module (3rd semester) may be completed at Magdeburg-Stendal University of Applied Sciences/Germany or at another university (project partners).
- (2) As long as evidence has been provided that the requirements for admission to the given examination have been satisfactorily met, the module exams may be taken before the end of the semester indicated in the examination schedule.
- (3) The Master's exam comprises module examinations taken during the programme and the Master's thesis with defence.

### **§ 8 Types of courses**

- (1) Students are involved in shaping their teaching and learning processes and have scope to direct their studies themselves. This is, among other things, facilitated by a variety of types and forms of course.
- (2) Courses can be offered in the form of lectures, seminar-style lectures, seminars, tutorials, colloquia, laboratory practicals, internships, projects and study visits, and combinations thereof. More specific details are given in the Standard Curriculum and Examination Schedule.
- (3) Lectures convey fundamental technical knowledge, theory and methodology in a cohesive and systematic form.

- (4) Seminar-style lectures systematically and cohesively convey fundamental technical, theoretical and methodological knowledge and are used to explore theoretical and practical questions.
- (5) In seminars, students and professors work together to analyse and evaluate theoretical and practical issues. This may be done in a variety of forms (information presentations, disquisitions, developing hypotheses, discussions) and in groups.
- (6) Tutorials enable students to acquire fundamental methods and proficiencies.
- (7) In colloquia, students and professors engage in more thorough academic debate on selected issues.
- (8) Study visits facilitate observation and information-gathering and direct contact with on-site practical work.
- (9) Projects are used to develop skills for independent scientific work and for finding practical solutions to holistic problems. Projects are carried out in groups.
- (10) Laboratory practicals / internships are used for the practical application and consolidation of skills acquired during studies.
- (11) Courses may be conducted on campus, online or in hybrid form.
- (12) It is not compulsory to attend the courses. Wherever the type and content of a course means that a student's physical presence is required, this is indicated in the Standard Curriculum and Examination Schedule.

### **§ 9 Academic advice**

Subject-specific and general individual course guidance is offered. This relates in particular to the progression of studies, applying individually for part-time studies, the choice of modules and problems that may lead to significantly exceeding the standard study duration.

### **§ 10 Individual study plans**

- (1) Individual study plans are possible in principle. The point of contact for students wishing to set up an individual study plan is the programme leader / academic adviser. Individual study plans are used to achieve the successful completion of the study programme within or in excess of the standard study duration.
- (2) They are agreed with students who, in particular,
  1. are pursuing their course of studies part-time on an individual basis, or
  2. due to a longer-lasting or chronic illness, a disability, pregnancy, caring responsibilities or another personal reason, are unable to observe the semester requirements for the modules pursuant to the Standard Curriculum and Examination Schedule, or
  3. who, in spite of fulfilling admission requirements, are lacking previous knowledge in one or more modules.

§§ 11 and 19 and the Framework Regulations for Individual Part-time Studies at Magdeburg-Stendal University of Applied Sciences apply accordingly.

## **§ 11 Individual part-time studies**

Students who are not in a position to undertake full-time studies in the standard study period may apply to draw up an individual part-time study plan upon enrolment or re-registration. This is covered in greater detail by the Framework Regulations for Individual Part-time Studies at Magdeburg Stendal University of Applied Sciences.

## **II. Examination-Specific Provisions**

### **§ 12 Board of Examiners**

- (1) A board of examiners comprised of members of the department will be set up in order to organise the examinations and carry out the tasks prescribed in these Study and Examination Regulations. In general, it is to be comprised of at least 5 members, 3 of whom are professors, plus one representative of the group of research assistants/adjunct professors, and one student representative. The members of the board of examiners will be elected by the departmental council. The members of the board of examiners shall elect a chairperson and a deputy chairperson from among their number. These shall be members of the cohort of Professors. The research assistants/adjunct professor and student representatives may each elect one deputy. The student representative may only act in an advisory capacity with regard to examination decisions.
- (2) The board of examiners ensures that examinations are carried out and that the provisions of these Study and Examination Regulations are adhered to. The board of examiners reports regularly to the departmental council about its activities and provides it and the programme leader with suggestions about the further development of the programme. In the process, emphasis should be placed on the achievability of the programme and in particular compliance with the standard study duration.
- (3) The board of examiners makes its decision based on a majority vote. It is not permissible to abstain from voting. In the case of an even split, the chairperson or, when absent, his or her proxy, shall have the casting vote. The board of examiners shall be considered quorate when the majority of its members, of which at least two must be professors, are present.
- (4) The term of office of the members of the board of examiners is four years, with student incumbency limited to one year. Re-election is possible.
- (5) The essential matters for discussion and the decisions of the board are to be recorded in the minutes.
- (6) In individual cases, the board of examiners may transfer specifically determined powers revocably to the chairperson. The chairperson prepares and executes the resolutions of the board of examiners, and regularly informs members about his or her activities.
- (7) The members of the board of examiners have the right to participate as observers during examinations. This does not apply to advice on the assessment of examination performance.
- (8) At the beginning of each semester, the board of examiners will determine the examination schedule for the oral and written examinations.
- (9) The members of the board of examiners are bound to maintain confidentiality. If they are not public service employees, members must make a pledge of secrecy to the chairperson.



### **§ 13 Examiners and assessors**

- (1) The board of examiners appoints the examiners and assessors. Only members and associates of this or another university who possess the necessary qualifications to teach independently on the examination module in question are authorised to be examiners. Professors and research assistants/adjunct professors, provided that they undertake teaching duties, teaching staff and persons experienced in professional practice and education are authorised and obliged to hold university examinations. People may only be appointed as examiners and/or assessors if they possess at least the qualification that is subject to examination or an equivalent qualification.
- (2) University examinations and examinations taken during the programme which must be passed in order to continue the programme, must generally be assessed by two examiners. Written final theses must be assessed by at least two examiners. Oral examinations are to be conducted by several examiners or by one examiner in the presence of one expert assessor. The expert does not have the right to pose questions or the right of appraisal of an examiner.

If the board of examiners determines that, taking into consideration all those authorised to be examiners or assessors pursuant to paragraph 1, for whom, because of additional undue burdens and in consideration of their normal professional responsibilities, it would be inappropriate to appoint them, or when two examiners are not available for the examination date in question, it may resolve that only one examiner should mark the written exam. This resolution must be communicated to the students when registering for the examination. This does not apply to written final theses.

- (3) Students may propose examiners for oral examinations and the Master's thesis. Their proposals are not binding.
- (4) The examiners must carry out their duties independently.
- (5) The examiners are normally the professors for the module in which the examination is to be taken, provided that they are duly authorised examiners pursuant to para. 1. Should this not be the case, the board of examiners shall specify the examiners and ensure that the students are notified in due time.
- (6) § 12, para. 9 applies accordingly to examiners and assessors.

### **§ 14 Recognition of qualifications, crediting of knowledge and skills**

- (1) Magdeburg-Stendal University of Applied Sciences pursues a recognition and crediting approach that seeks to foster student mobility. Recognition relates to periods of study and study achievements / examinations from other domestic and foreign universities; crediting takes into account knowledge and skills obtained outside of higher education.
- (2) Upon written application, the board of examiners may decide to recognise a student's prior periods of study, academic achievements and examinations. The decision regarding recognition takes place immediately after presentation of all necessary documents and information, and generally within four weeks.
- (3) For recognition in connection with the commencement of a study programme, the application should be submitted to the board of examiners immediately after the beginning of the programme in order to ensure a speedy start to the student's activities. For recognition in order to continue a study programme, the taking of examinations or, above all, after completion of a study semester abroad, it should be made as soon as possible after the necessary documents become available.

- (4) It is the responsibility of the student making the application to provide sufficient information concerning the achievement(s) for which recognition is being sought. The university reserves the right to request original documents and/or a sworn translation in order to verify the achievement.
- (5) Achievements must be recognised provided that they do not differ significantly with regard to the skills and competences acquired in comparison with the corresponding study programme at Magdeburg-Stendal University of Applied Sciences.

In particular, there may be deemed to be a significant difference if the qualification for which recognition is sought does not include a competence required for successful completion of the course of studies and whose absence might put that successful completion at risk. Important criteria for recognition are the requirements and qualification objectives of the subsequent programme of study. Rather than being based on a schematic comparison, a holistic consideration and assessment shall be conducted. Conditional recognition is possible.

The burden of proof that there are significant differences in the competences acquired in comparison with the corresponding study programme at Magdeburg-Stendal University of Applied Sciences lies with the board of examiners.

- (6) For the recognition of periods of study and study achievements / examinations attained outside of the area of application of the higher education laws of the German federal states, in addition, the “Convention on the Recognition of Qualifications concerning Higher Education in the European Region” (Lisbon Convention), the equivalence agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, and the German Rectors’ Conference, plus agreements in the context of university partnerships must be taken into account.
- (7) The recognition of an examination may be refused if for this examination an examination agreement already exists at Magdeburg-Stendal University of Applied Sciences or an examination has been definitively failed.
- (8) Recognised achievements for a module receive the relevant number of credits indicated in the Standard Study and Examination Schedule for this module.
- (9) In the case of identical or directly comparable grading systems, the grade will be adopted in accordance with § 22. Grades from other scales will be converted.

For the conversion of grades, a comparison of the statistical grade distributions in accordance with the ECTS guidelines of the European Commission must be undertaken. If this method cannot be applied, the conversion must be undertaken using what is known as the Modified Bavarian Formula.

Recognised grades are included in the calculation of the overall grade pursuant to § 31 of these regulations.

Recognised, ungraded achievements in a module must be evaluated as “successfully completed” (ungraded). This also applies if the recognised achievement is graded, however the corresponding module at Magdeburg-Stendal University of Applied Sciences is ungraded.

- (10) Knowledge and skills acquired outside of higher education may be taken into account for a university degree, if
  1. the requirements applicable for access to university have been met and

2. the knowledge and skills to be taken into account are equivalent to the academic achievements and examinations that they are to replace.

In total, knowledge and skills acquired outside of higher education may not replace more than 50% of the university course content.

Using the documentation submitted, the board must consider if, and to what extent, the content and level of the qualifications are equivalent to parts of the course of studies and thus if and to what extent they may replace them.

As a general rule there is no conversion of grades when crediting achievements. The modules thus credited will be assessed as being "successfully completed" (ungraded).

Paragraphs 2, 3, 4, 5 and 8 apply accordingly.

- (11) The type and scope of recognised achievements and credited skills and knowledge for a degree programme must be identified in the diploma supplement. In addition, qualifications obtained abroad and recognised and credited for a study programme must be identified in the Diploma Supplement

### **§ 15 Internship, vocational activity, practical study semester in Germany or abroad**

The study programme does not include an internship semester.

### **§ 16 Study phases abroad**

- (1) No specific provision is made for a study semester abroad, but it is desirable.
- (2) Before the start of the foreign study programme, a Learning Agreement must be drawn up between the student and the ECTS representative appointed by the board of examiners and the responsible person at the host university concerning the achievements and qualifications that it is intended should be recognised.

### **§ 17 Pre-examination assessments**

- (1) A pre-examination assessment is a prerequisite for admission to examinations taken during the programme. A module assessment examination during the programme may only be taken where there is proof that a pre-examination assessment has been successfully completed.
- (2) Pre-examination assessments are listed as such in the appended Standard Curriculum and Examination Schedule. Pre-examination assessments must be monitored in the department.
- (3) Pre-examination assessments are graded as either "passed" or "failed".
- (4) Failed pre-examination assessments may be repeated as many times as necessary.

### **§ 18 Types and forms of assessment**

- (1) Types of assessment during the programme are:
  1. Written examination (WE) (paragraph 3)

2. Oral examination (OE) (paragraph 4)
3. Term paper (TP) (paragraph 5)
4. Design project (DP) (paragraph 6)
5. Experimental work (EW) (paragraph 7)
6. Academic project (APr) (para. 8)
7. Disquisition (D) (paragraph 9)
8. Attendance certificate (AC) (paragraph 10)

Assessments are generally graded in accordance with § 22. Exceptions, where necessary, are noted in the individual paragraphs or in the Standard Study and Examination Schedule. The type and scope of individual module examinations taken during the programme and/or the attendance certificates can be found in the Standard Curriculum and Examination Schedule appended to these regulations.

- (2) Examinations may be taken in person on campus or online. The form of examination must be announced by the lecturer in the first class of the module or at the latest 4 weeks before the date of the examination.
- (3) In a **written examination**, to be completed in a limited time with limited means of assistance and under invigilation, students are required to demonstrate their comprehension of a problem and their ability to find ways of solving it using the standard methodology within the specific field. A written examination must be completed in at least 60 minutes, but no longer than 180 minutes.
- (4) In an **oral examination**, students should be able to demonstrate a coherent knowledge of the subject area being examined and the capacity to understand complex issues relating to this subject.

The oral examination is conducted either as an individual examination or a group examination (whereby up to 3 students can form a group). In general, the length of the examination for each student is 20 minutes. The essential points of the examination and its grading must be recorded in writing. This record must be signed by the examiners and the assessors. The results of the examination are to be made known to the student directly following the presentation of the oral exam.

- (5) A **term paper** requires an experimental, empirical or theoretical approach to a specific assignment from within the field of study. The assignment should be set in such a way that it can be completed within 1 to 4 weeks. Students are free to propose topics and tasks for their papers. These proposals are not legally binding. In appropriate cases the solutions developed may be presented orally in a form typically used in the professional field in question. Paragraph 11 applies accordingly.
- (6) A **design project** involves addressing a subject-specific or interdisciplinary assignment from a conceptual and constructive perspective, giving special consideration to planning aspects and the exposition and explanation of the solutions developed in a manner suitable to the respective professional field. Paragraph 10 applies accordingly.
- (7) **Experimental work** especially refers to:
  - the theoretical preparation of experiments
  - the design and execution of experiments

- the written presentation of the steps in the experimental procedure and the results of experiments as well as critical appraisal of them.

Paragraph 10 applies accordingly.

- (8) By working on a joint **academic project**, students must demonstrate their capacity to produce scientific work independently as well as to work in a team. Each individual's contribution to a project must be clearly demonstrated.
- (9) A **disquisition** encompasses:
- an independent and thorough written examination of a problem from within the context of the course of studies which takes into account and evaluates relevant literature, as well as
  - the presentation of the work and communication of the results in an oral presentation and in the ensuing discussion.

In general, the assignment should be set in such a manner that it can be completed within a period of 1 to 2 weeks.

- (10) An **attendance certificate** (AC) will provide evidence of regular and active participation in the module classes and proof of the successful completion of the relevant module. An attendance certificate is not graded.

The requirement for the successful completion of a module is the full and unrestricted participation in at least 80% of the classes in the module and the completion of the achievements defined in the respective module description.

An attendance certificate will be drawn up by the lecturer after completion of the module if the performance attained complies with the requirements set out at the start of the module.

§§ 6 paras 1 and 19 apply accordingly. The board of examiners can make decisions in individual exceptional cases.

- (11) If students are overburdened with other coursework, the length of time given to complete the assessment may be extended only once upon written application by up to one half. An attempt abandoned because of unduly long illness will not be counted towards the permissible number of repetitions. If the assessment is not submitted by the deadline without a reason acknowledged by the board of examiners, it shall be assessed as "insufficient" or "unsuccessfully completed". § 23 applies accordingly to any repeat attempt.
- (12) The examiners are to determine the task assignment for the examinations. If the examiners cannot come to an agreement, the board of examiners will take over the responsibility.
- (13) Group projects are also a permissible form of assessment. The contribution of each individual student must meet the examination requirements and be clearly discernible and assessable on the basis of sections, pages or other objective criteria. The group size is limited to 3 students.

### **§ 19 Equality of opportunity, accommodations for disadvantage, statutory protection periods, possible compensations**

- (1) If students are able to credibly demonstrate through a doctor's certificate or other suitable form of evidence that, due to a chronic disease or disability pursuant to § 3 of the law

concerning the equality of disabled people (Act on Equality for Persons with Disabilities - BGG), a disability or a pregnancy, they are unable to fully or partially complete their examination(s) in the prescribed manner or within the prescribed time frame, they must be granted an adequate and appropriate accommodation for their disadvantage. To this end, a written application to the board of examiners is required which, in the case of long-term impediments must usually be submitted at the beginning of a semester or immediately after the impediment is first experienced.

- (2) The protective provisions in accordance with the law on the protection of mothers at work, education and studies (Maternity Protection Act) and in accordance with the law on parental benefits and leave (Federal Parental Allowances and Parental Leave Act), parental leave periods as well as, in accordance with the Care Leave Act and in accordance with the Family Care Leave Act, periods for times of actual caring for a close relative must, when applying these Study and Examination Regulations and in particular when calculating deadlines, be taken into account appropriately and their use must be facilitated.

During a leave of absence granted on the grounds of family responsibilities, students are free to continue with their studies and examinations. Upon written application to the board of examiners, the repetition of a failed examination during the leave of absence is admissible.

- (3) Accommodations should be made for students with caring duties. Students with caring duties include, in particular, those with children under the age of 12 and students undertaking caregiving for relatives or other close associates. Caring duties may be evidenced with the help of the Pass for the Compensation of Extra Burdens (KomPass) or other suitable evidence. (e.g. birth certificates, adoption certificate or proof of fostering, evidence of caring activity from a medical specialist or the nursing service.)
- (4) For students in accordance with paragraphs 1 to 3, accommodations for disadvantages should be made available whilst retaining the content requirements of assessments. The Pass for Compensation of Extra Burdens (KomPass) and, where necessary, additional documents may be used as proof. This is covered in greater detail by the regulations governing the accommodation of extra burdens on students at Magdeburg Stendal University of Applied Sciences

## **§ 20 Public access to oral examinations**

As long as they themselves are not registered to take the same examination, students who have yet to successfully complete the respective examination may, with the agreement of the examiner, be present at an oral exam as an observer (§ 18, para. 4). This does not extend to the counselling of students or the notification of their examination results. A student may apply to the examiner(s) to exclude observers in accordance with sentence 1 from his or her examination.

## **§ 21 Registration for examinations during the programme**

- (1) A student must be enrolled at Magdeburg-Stendal University of Applied Sciences as a prerequisite for registering for examinations.
- (2) Students are automatically registered for the written and oral examinations stipulated in the Standard Curriculum and Examination Schedule for the current programme semester. The possible forms of examination in each module are set out in the current version of the Standard Curriculum and Examination Schedule. Students who do not yet wish to sit an examination must notify the university of their withdrawal via the university's online

portal, "Onlinecampus", no later than one week before the respective examination date. Paragraph 4 applies accordingly.

- (3) Notwithstanding paragraph 2, the students themselves must register for delayed or repeat examinations and examinations in compulsory elective or voluntary elective modules via Onlinecampus.

If they wish to withdraw from an examination, this must be done no later than one week before the relevant date via Onlinecampus.

- (4) If a student fails to sit the examination without having given notice of withdrawal, the exam shall be deemed to have been taken and failed.

In the event of withdrawal, the student is responsible for re-registering for the examination at a later date via Onlinecampus.

- (5) In cases of non-compliance with the registration deadline, admission to the examination is not permitted unless the board of examiners decides otherwise in response to a written application by the student.

- (6) Registration and therefore admission to an examination must be refused if:

1. the admission requirements are not met, or
2. the student's documents are incomplete, or
3. the examination has been definitively failed or is deemed to have been definitively failed.

The board of examiners will decide whether or not to admit the student. Pursuant to § 38, refusal of admission shall be communicated in writing.

## **§ 22 Assessment of examinations and grading policy**

- (1) Each examination is evaluated and graded by the respective examiner. In the case of written examinations, the grade must be announced via the online portal of the university no later than four weeks after the examination was taken, taking data protection considerations into account.
- (2) The following grades are to be used for the assessment of examinations:

<b>Numerical grade</b>	<b>Grade</b>	<b>Description of performance</b>
1	very good	an outstanding performance
2	good	a performance which is significantly above-average
3	satisfactory	performance which meets the average requirements
4	sufficient	a performance which, in spite of deficits, is considered to be sufficient
5	insufficient	a performance which, because of substantial deficits, does not meet requirements

For the sake of greater differentiation, individual numerical grades may be raised or lowered by 0.3, with the exception that the numerical grades 0.7, 4.3, 4.7 and 5.3 may not be awarded.

When examinations are designated for assessment without grading, the assessment result is either “successfully completed” or “not successfully completed”.

The type of assessment can be found in the appended Standard Curriculum and Examination Schedule.

- (3) An examination is considered to have been passed if it has been awarded a grade of "sufficient" If the examination is assessed by several examiners, the average of their numerical grades shall be used to determine the final numerical grade. In this case, deviating from the regulation stipulated in para. 2, the numerical grade awarded for the examination corresponds to the arithmetic average of the individual numerical grades awarded by the examiners, cut off after the first decimal place.

A non-graded exam has been passed successfully if it is awarded the result “successfully completed”. If the non-graded exam is assessed by several examiners, it is deemed to have been passed if the majority award the grade of “successfully completed”.

- (4) A module examination is considered to have been passed when all required assessments have received a grade of at least "sufficient".

If a module examination comprises only one exam, the numerical grade for the module corresponds to the numerical grade awarded for the exam.

If a module examination comprises several exams, notwithstanding the provision set out in paragraph 2, the numerical grade awarded for the examination corresponds to the arithmetic average (if necessary weighted) of the individual numerical grades awarded by the examiners, cut off after the first decimal place.

The weightings assigned to the individual modules or examinations can be ascertained from the appended Standard Curriculum and Examination Schedule or in general derived from the relative share of credits.

A module examination is also deemed to have been passed if all of the necessary ungraded assessments are graded as having been “successfully completed”.

- (5) When arriving at a grade by means of averaging, only the first decimal place after the decimal point will be considered; all other decimals will be ignored without rounding.

Grading structure:

<b>With an average numerical grade of</b>	<b>Grade</b>
up to 1.5	very good
1.6 up to and including 2.5	good
2.6 up to and including 3.5	satisfactory
3.6 up to and including 4.0	sufficient
4.1 or below	insufficient



### **§ 23 Repetition of examinations**

- (1) Examinations which do not receive a passing grade or are considered to have been failed can be repeated twice. First repetitions of an examination must be taken within 2 semesters of being notified of failing the exam via the online portal of the university. Second repetitions of an examination must be taken on the next available examination date after being notified of failing the first repetition of the exam via the online portal of the university. These deadlines do not apply if the student has been granted an extension for reasons that are beyond their control. Repeat examinations are offered every semester by the department. §§ 21 and 22 apply accordingly for the registration and evaluation. If the time limit is not observed, the examination shall be deemed to have been definitively failed. § 31 para. 4 applies accordingly.
- (2) A third repetition of an examination, generally held on the next regular examination date, is admissible in justifiably exceptional cases and as long as there is sufficient prospect of passing the exam. Upon written application, the board of examiners may determine an earlier date in agreement with the student. A third repetition is only admissible for a maximum of two examinations during the entire duration of the programme of studies.
- (3) The third repetition of an examination is to be applied for and justified before the board of examiners in written form within the six-week cut-off period immediately following notification of having failed the second repetition.
- (4) An exceptional case in terms of paragraph 2 is constituted by undue burdens or health limitations which caused the student to fail the second repetition of the examination.
- (5) § 22 applies accordingly for the evaluation of a successfully completed repetition of an examination.
- (6) Unsuccessful attempts at passing an exam from the same or a comparable course of studies at another university should be counted towards the total permissible number of repetitions.
- (7) The repetition of an examination that has already been passed is inadmissible.

### **§ 24 Free attempt**

There is no provision for a free attempt at any examination.

### **§ 25 Supplementary examinations**

- (1) Students also have the opportunity to take examinations in modules other than those prescribed in the Standard Curriculum and Examination Schedule appended to these regulations, provided that there is sufficient capacity.
- (2) The results of supplementary examinations can be included in academic transcripts or certificates upon application by the student. The results of supplementary examinations are not taken into consideration when calculating average numerical grades and when determining the cumulative numerical grade.

### III. Master's Degree

#### § 26 Specification of the Master's thesis topic

- (1) The Master's thesis is an independent academic research paper which is to be submitted in writing and defended orally. The Master's thesis should demonstrate that students are capable of working independently and in a scientific manner within a given time frame on a specific subject in their chosen field of studies. The topic and task assignment of the Master's thesis must be suited to the purpose of the examination as well as the time allowed for completion.  
The topic for the Master's thesis must be specified with sufficient time for it to be finished and defended within the standard study duration.  
The Master's thesis must be written in English.
- (2) Students should be given the opportunity to make suggestions for the topic and task assignment of the Master's thesis. Whenever possible, a student's suggestion should be accommodated. The suggestion shall not be legally binding.  
Upon application, the board of examiners will assist students in finding a topic.
- (3) The topic is set by the first examiner in agreement with the student, generally at the beginning of the 3rd semester. The second examiner is appointed once the topic has been set. During the writing of their theses, students are supervised by their first examiner. Details of the topic, the examiners and the time allowed for completion must be put on official record.
- (4) The Master's thesis topic can be determined by any professor at Magdeburg Stendal University of Applied Sciences or by a project partner. If the topic of the Master's thesis is set by one of the project partners, the second examiner must be a member of the teaching staff in the department involved from Magdeburg-Stendal University of Applied Sciences. The same applies to other examiners or assessors authorised pursuant to § 13 paragraph 1. In this case, the second examiner must be a professor in the participating department at Magdeburg Stendal University of Applied Sciences. The board of examiners will rule on individual exceptional cases.
- (5) The Master's thesis can be completed in the form of a group project. The contribution of each individual student must meet the examination requirements as per paragraph 1 and be clearly discernible and assessable on the basis of sections, pages or other objective criteria. The group size is limited to 2 students.
- (6) The topic, task assignment and scope of the Master's thesis should be kept within suitable limits so that it can be completed within the set time frame. The completion time for the Master's thesis is 20 weeks.

The completion time, even if there are several reasons for doing so, may only be extended by a maximum of 10 weeks.

An extension to the time allowed for completion may be granted:

1. in the event of the student suffering an illness that is confirmed by a doctor with a certificate of incapacity for the duration of the illness, and for a maximum of 10 weeks,
2. in individual cases in the event of a particular burden on the student as evidenced by the KomPass or possibly by other documents in accordance with § 19, and for a maximum of 10 weeks,
3. on an individual basis and with the written approval of the first examiner for reasons beyond the student's control, for a maximum of 10 weeks.

The written application for an extension to the completion time must be made to the board of examiners by the student by no later than the expiry of the original completion time.

An attempt abandoned because of unduly long illness will not be counted towards the permissible number of repetitions.

Pursuant to sentence 2, the topic can only be returned once and only within the first third of the completion period.

The new topic for the Bachelor's thesis will be issued in a reasonable time frame, generally within three months.

### **§ 27 Registration and approval to write the Bachelor's thesis, deadlines**

- (1) Students must register in writing with the board of examiners to write their Master's thesis. The following must be appended to the registration:
  - a topic proposal,
  - the names of the examiners and their confirmatory signatures
  - if necessary, an application for permission to write a group thesis
  - where necessary, an application to hold the defence in private if secrecy is required.

The board of examiners shall decide whether or not to admit a student to write their Master's thesis.

- (2) Only those persons who are enrolled at Magdeburg Stendal University of Applied Sciences on the Master's Programme in Water Engineering and can provide evidence of having acquired at least 60 credits towards the Master's examination from module exams will be permitted to register to write a Master's thesis.  
The board of examiners will rule on individual exceptional cases.

### **§ 28 Submission and appraisal of the Master's thesis**

- (1) Upon submission of a Master's thesis, a student must guarantee in writing that their thesis – or their identified section in the case of a group thesis – has been written individually, that no other sources or aids have been used other than those cited, and that the thesis has not previously been assessed on another Master's degree programme as a Master's thesis.
- (2) The Master's thesis must be submitted to the secretariat of the department in a timely manner, with three copies being submitted in printed form and, in addition, for the purposes of archiving and possibly publication, one copy being submitted in digital form saved as a pdf file on CD or DVD. The date and time of submission must be put on official record.

A corresponding declaration concerning the archiving and publication of the Master's thesis must be appended. After completion of the review and assessment procedure, the digital version must be immediately consigned to the archive by the first examiner. More detailed provisions are contained in the Statute Concerning the Archiving and Publication of Student Theses at Magdeburg-Stendal University of Applied Sciences.

If the Master's thesis is not submitted in due time without a reason accepted by the board of examiners, it shall be graded as "insufficient". § 30 applies accordingly to any repeat attempt.

- (3) The Master's thesis has to be reviewed and graded by 2 examiners. The outcome of their assessment of the Master's thesis should be available within four weeks from the date on which it is submitted. § 22 applies accordingly.
- (4) 30 credits will be awarded for successful completion of the Master's thesis and defence.
- (5) Two-thirds of the module grade will be made up of the mark from the Master's thesis and one-third from the mark awarded for the defence.

### **§ 29 Master's thesis defence**

- (1) With the defence of the Master's thesis, students should be able to demonstrate that they are capable of defending the results of an independent scientific work in an academic debate within their chosen field of studies.
- (2) Admission to the defence of the Master's thesis is conditional upon passing all module examinations and the Master's thesis being assessed by the examiners with a grade of at least "sufficient".
- (3) The Master's thesis examiners will hold the defence as an individual or group examination. The board of examiners can appoint additional examiners. As a rule, the length of the defence for each student is 45 minutes, but no longer than 60 minutes. § 22 applies accordingly to the assessment of the defence. The defence is generally held in public. Upon application by the student to the examiner(s), the defence may be held in private. § 20 applies accordingly.
- (4) The essential points of the examination and its grading must be recorded in writing. This record must be signed by the examiners and the assessors. The results of the examination are to be made known to the student directly following the presentation of the oral exam.
- (5) The defence is deemed to have been successfully completed if the examiners award it a minimum grade of "sufficient". In the case of a grade of "insufficient" the defence may be repeated in accordance with the provisions of § 30. Furthermore, § 28 paragraphs 4 and 5 apply accordingly.

### **§ 30 Repetition of the Master's thesis and defence**

- (1) The Master's thesis may, if it has been graded "insufficient" or is deemed to have been graded "insufficient", be repeated once, with the new topic being specified within 12 months.
- (2) If a Master's thesis is repeated, returning a topic is only admissible if no use was made of this possibility the first time. The new topic for the Bachelor's thesis will be issued in a reasonable time frame, generally within three months.
- (3) A second repetition is inadmissible.
- (4) Repetition of a successfully completed Master's thesis is not permitted.
- (5) The Master's thesis defence may be repeated once if it has received a grade of "insufficient" or is deemed to have been graded "insufficient". The repeat attempt must generally be undertaken within 4 weeks.
- (6) A second repetition of the Master's thesis defence is inadmissible.

- (7) Repetition of a successfully completed defence is not permitted.

### **§ 31 Cumulative Master's examination result**

- (1) The Master's examination is considered to have been taken successfully when all compulsory and compulsory elective module examinations and the Master's thesis *and defence* have been awarded a minimum grade of "sufficient"
- (2) Notwithstanding the regulation set out in § 22, paragraph 2, the cumulative grade of the Master's exam is derived, where applicable, from the weighted average of the grades for the module examinations and the module grade of the Master's thesis and defence. § 22 para. 5 applies accordingly.

The weightings assigned to the individual modules are to be taken from the appended Standard Curriculum and Examination Schedule or derived from the relative share of credits attributable to the respective modules.

- (3) If the average of the cumulative grade is better than 1.3, then the overall result

#### **"passed with distinction"**

will be awarded.

- (4) A Master's exam is irrevocably failed when a module exam or the Master's thesis and defence receive a grade of "insufficient" or are deemed to have been graded "insufficient" and no further repetitions are permitted.
- (5) The German cumulative grade will be provided with a grade distribution scale for the relative classification of the cumulative grade in accordance with the provisions of the ECTS Guidelines 2015.

### **§ 32 Academic transcripts and certificates**

- (1) An academic transcript must be completed without delay, if possible within four weeks of the Master's examination having been passed. The transcript contains the modules and corresponding module grades and bears the date on which the last examination was completed. It is to be signed by the chairperson of the board of examiners and the dean of the department, and to be furnished with the seal of Magdeburg-Stendal University of Applied Sciences.
- (2) Students will receive a diploma supplement together with the transcript.
- (3) If the Master's exam has been failed or is deemed to have been failed, then the examination office, in coordination with the board of examiners, will present the student with a written notification which also provides information as to whether and, where applicable, to what extent it is possible to repeat examinations. Notification of an irrevocably failed Master's exam must be furnished with instructions on the right to appeal.
- (4) If students leave the university or change their programme of studies, upon application they will be issued with a certificate showing the examinations taken and grades achieved.

### **§ 33 Degree certificate**

- (1) Together with the transcript, students receive a degree certificate showing the same date as the academic transcript. The degree certificate confers the title of Master upon the holder.
- (2) The degree certificate is to be signed by the Dean of the department and the Rector of Magdeburg-Stendal University of Applied Sciences, and to be furnished with the seal of Magdeburg-Stendal University of Applied Sciences.

## **IV. Closing provisions**

### **§ 34 Access to examination files, archiving of examinations**

- (1) Following completion of each module exam and the Master's thesis with defence and each within a cut-off period of three months from notification of the results, students may, upon written application, be granted access to the written exams, corresponding examiners' assessments, and the examination records. Periods of time when classes are out of session shall be disregarded in this connection.
- (2) Examination papers in accordance with § 18 must be held in the department for one year and may then be disposed of in compliance with data protection regulations. Final theses must also be held in the department for one year. Afterwards, one copy must be consigned to the archive for permanent retention. Study and examination related proofs (performance records, lists of grades, exam records) must be retained in the department for 10 years. Afterwards, or possibly before 10 years have elapsed, these must be consigned to the archive.

### **§ 35 Non-attendance, withdrawal, cheating, breach of regulations**

- (1) An examination taken during the programme is to be assessed as "insufficient" / "not successfully completed" or shall be deemed to have been assessed as "insufficient" / "not successfully completed" if, without a valid reason, the student
  - does not attend on a mandatory examination date,
  - withdraws from the examination after it has already begun,does not retake an examination within the established time frame.
- (2) The justifications claimed for any withdrawal or non-attendance must be notified to the board of examiners immediately in writing and credibly substantiated. Otherwise, the assessment must be graded as "insufficient" / "not successfully completed". In case of illness, a doctor's certificate must be provided as confirmation of the student's inability to sit the examination. In cases of doubt, this must be a public medical officer's certificate. Illness suffered by one of the children for whose care a student is responsible, shall be considered to be the equivalent of an illness suffered by the student, as far as compliance with the deadlines for the first registration for an examination, the repetition of examinations, the reasons for missing examinations and compliance with the time allowed for working on theses are concerned. Unless the board of examiners resolves otherwise, upon recognition of the reasons for non-attendance or withdrawal, the exam must be taken on the next regular examination date.
- (3) If the student attempts to influence the result of an examination by cheating or the use of unauthorised aids, the examination concerned should be assessed as "insufficient" / "not successfully completed" or the examination concerned should be deemed to have

been assessed as “insufficient” / “not successfully completed”. Examiners and invigilators are authorised to exclude any student who disrupts the orderly conduct of the examination from further participation in the exam. If this is the case, the examination will be assessed as “insufficient” / “not successfully completed”. In serious cases of cheating or disruption, the board of examiners is authorised to exclude the student from any further examinations.

- (4) If a student does not provide sufficient reason for not having respected the submission deadline for an assessment it will be deemed to have been graded as “insufficient” / “not successfully completed”. Paragraph 2 applies accordingly.
- (5) Boards of examiners are entitled to require and take a sworn statement from a student that an assessment has been completed by them independently and without impermissible outside help and taking into account the general principles of good academic practice. In case of infringements, the assessment concerned must be awarded a grade of “insufficient” / “not successfully completed” or it shall be deemed to have been awarded a grade of “insufficient” / “not successfully completed”. In serious cases, the board of examiners may exclude the student from taking further examinations and/or initiate further legal action.

### **§ 36 Invalidity of examinations**

- (1) In the event of a student cheating in an exam, and this becoming known after the degree has been awarded, the board of examiners is authorised to declare an examination to have been failed either partially or in its entirety.
- (2) If the conditions for admission to an examination were not met but without any intentional deception, and this only becomes known after the degree has been awarded, the deficiency is deemed to have been rectified if the examination was completed successfully. In the case of a student gaining admission by committing a deliberate breach, the board of examiners, taking into consideration relevant legal regulations, will decide as to the retraction of unlawful administrative acts.
- (3) Prior to such a decision, the affected student is to be given the opportunity to make a statement on the matter to the board of examiners.
- (4) An incorrect transcript is to be revoked and replaced with a corrected transcript in accordance with § 32. Once a period of five years has elapsed from the date the transcript is issued, a decision pursuant to paragraphs 1 and 2 is thereafter excluded.

### **§ 37 Decisions, appeal procedure**

- (1) All decisions made in accordance with these Study and Examination Regulations and which constitute an administrative act are to be justified in writing and furnished with instructions on appeal in compliance with § 41 of the Administrative Procedures Act ((VwVfG). An appeal can be made to the board of examiners within one month of having received the decision.
- (2) The board of examiners will rule upon the validity of the appeal. In the event that the appeal involves a grade, the appeal will be sent to the examiner or examiners for their review. If the assessment is amended pursuant to the appeal, the board of examiners shall uphold the appeal. Otherwise, the board of examiners only reviews the decision in terms of
  1. whether or not the exam procedures were properly conducted,

2. whether or not the examiner relied on unfounded facts or circumstances,
3. whether or not the generally valid principles of grading were applied,
4. whether or not the examiner was influenced by immaterial considerations.

If the board of examiners does not uphold the appeal, it will be forwarded to the Departmental Council, with the exclusion of the student members, for a decision.

- (3) A decision as to the validity of the appeal will be made within a period of one month.

### **§ 38 University-wide announcements by the board of examiners**

Decisions and other measures relating to these Study and Examination Regulations, especially with regard to admission to examinations, refusal of admission, examination and registration dates, examination deadlines and the results, will be made known university-wide in the institution's customary manner. In so doing, data protection regulations will be observed.

### **§ 39 Transitional regulations**

These Study and Examination Regulations are valid for all students who begin their studies from the summer semester of 2024.

### **§ 40 Entry into force**

Following approval by the Rector, these Study and Examination Regulations shall take effect the day after their university-wide announcement in the Magdeburg Stendal University of Applied Sciences Official Notices.

Issued pursuant to the resolutions of the Water, Environment, Construction and Safety departmental council dated 18/10/2023 and the Magdeburg Stendal University of Applied Sciences senate dated 08/11/2023.

Magdeburg, 20/11/2023

The Rector



## Key to the Standard Curriculum and Examination Schedule

Ty = Type of course

WSP = Weekly semester periods

L = Lecture

S = Seminar

T = Tutorial

D = Defence

LP = Laboratory practical courses

Tr = Traineeship

FT = Field trips

PEA = Pre-examination assessment

T/A = Type of assessment

C = Credits

WE = Written examination

WE90 = 90-minute written exam

WE120 = 120-minute written exam

WE180 = 180-minute written exam

OE = Oral examination

TP = Term paper

DP = Design project

AC = Attendance certificate

EC = Experimental coursework

SP = Academic project

D = Disquisition

MT = Master's thesis

/ = or (e.g. L/Tu = lecture or tutorial)

, = and (e.g. L, T = lecture and tutorial)

\* = Further optional courses (additional compulsory elective modules)

## 1st Semester (summer)

No.	Modules	1st sem. Magdeburg				
		T	WSP	PEA	T/A	C
<b>Choose 5 of the following modules</b>						
<b>1.</b>	<b>Global water resources management</b>		<b>6</b>		<b>APa/DP</b>	<b>6</b>
1.1	Global water resources, EU law and global policies	L, Tu	2			2
1.2	Strategies / legislation / plan signs	L, Tu	2			2
1.3	Water management plans and projects	L, Tu	2			2
<b>2.</b>	<b>Water supply</b>		<b>6</b>		<b>TP/DP/WE</b>	<b>6</b>
2.1	Drinking water distribution	L, Tu	4			4
2.2	Design of water supply pipelines	L	2			2
<b>3.</b>	<b>Statistical Methods &amp; Artificial Intelligence</b>		<b>4</b>		<b>TP/WE</b>	<b>6</b>
3.1	Environmental Statistics	L, Tu	2			3
3.2	Data analysis & artificial intelligence	L, Tu	2			3
<b>4.</b>	<b>Waste technologies</b>		<b>4</b>		<b>DP/TP/WE</b>	<b>6</b>
4.1	Waste treatment	L, Tu	2			3
4.2	Waste and ocean	L, Tu	2			3
<b>5.</b>	<b>Restoration Ecology</b>		<b>6</b>		<b>DP/TP</b>	<b>6</b>
5.1	Ecology and restoration of rivers	L, S, Tr	2			2
5.2	Ecology and restoration of lakes	L, S, Tr	1			1
5.3	River restoration project	Tr	2			2
5.4	Ecology in arid terrestrial systems	L, S, Tr	1			1
<b>6.</b>	<b>Soft Skills</b>		<b>6</b>		<b>TP</b>	<b>6</b>
6.1	German language courses	L, Tu	1			1
6.2	Field trip / presentation techniques	FT/S	4			4
6.3	Intercultural competence	L, Tu	1			1
<b>7.</b>	<b>Environmental Chemistry of Waters</b>		<b>6</b>		<b>DP/TP/WE</b>	<b>6</b>
7.1	Aquatic environmental chemistry	L, Tu	2			2
7.2	Analysis of water constituents and pollutants	L, Tu, LP	2			2
7.3	Water quality and pollution	L, Tu	2			2
<b>8.</b>	<b>Groundwater</b>		<b>4</b>		<b>DP/TP</b>	<b>6</b>
8.1	Groundwater modelling of dams	L	2			3
8.2	Groundwater models	L, Tu	2			3
	<b>Further Optional Courses*</b>	*	4-6		*	6
	<b>Σ 1st sem.</b>		<b>22-30</b>			<b>30</b>

1CP = 30h workload for students

## 2nd semester (winter)

No.	Modules	2nd sem. Magdeburg				
		T	WSP	PE	T/A	C
<b>Choose 5 of the following modules</b>						
<b>9.</b>	<b>Hydraulic Engineering</b>		<b>6</b>		<b>DP/TP/ WE</b>	<b>6</b>
9.1	Design of hydraulic structures	L	2			2
9.2	Risk management	L, Tu	2			2
9.3	Flood protection	L	2			2
<b>10.</b>	<b>Hydrology and GIS</b>		<b>5</b>		<b>TP</b>	<b>6</b>
10.1	GIS and Hydrology	L, Tu	4			4
10.2	Advanced Hydrology	L	1			2
<b>11.</b>	<b>Experimental Hydraulics</b>		<b>5</b>		<b>EW,TP</b>	<b>6</b>
11.1	Model theory	L	1			2
11.2	Hydraulic and morphological experiments	L, Tu, LP	2			2
11.3	Measurement techniques	L, Tu, LP	2			2
<b>12.</b>	<b>River Morphology</b>		<b>6</b>		<b>DP/WE 180</b>	<b>6</b>
12.1	River Morphology	L, Tu	2			2
12.2	Sediment transport	L, Tu	2			2
12.3	Sedimentation and Erosion	L, Tu	2			2
<b>13.</b>	<b>Computational Fluid Dynamics</b>		<b>4</b>		<b>APa/DP</b>	<b>6</b>
13.1	1dhn- modelling	L, Tu	2			3
13.2	2dhn- modelling	L, Tu	2			3
<b>14.</b>	<b>Waste Water</b>		<b>5</b>		<b>DP/TP</b>	<b>6</b>
14.1	Waste water technology	L, Tu	2			2
14.2	Sludge treatment and anaerobic treatment	L, Tu	1			2
14.3	Design of sewer networks (Schmidt)	L, Tu	2			2
<b>15.</b>	<b>Drinking Water Treatment</b>		<b>6</b>		<b>DP/TP/ WE</b>	<b>6</b>
15.1	Drinking water treatment	L, Tu	4			4
15.2	Treatment plant design	L, Tu	2			2
<b>16.</b>	<b>Social Aspects</b>		<b>6</b>		<b>APa/DP</b>	<b>6</b>
16.1	Environmental laws and policies, Impact Assessment	L, Tu	2			2
16.2	Social-ecological systems	L, Tu	2			2
16.3	Approval processes	L, Tu	2			2
	<b>Further Optional Courses*</b>	*	4-6		*	6
	<b>Σ 2nd sem.</b>		<b>23-30</b>			<b>30</b>

1CP = 30h workload for students

## 3rd semester (summer)

No.	Master's thesis module	
17.	Master's Thesis	30
	<b>Σ 3rd sem.</b>	<b>30</b>

### \* Further Optional Courses:

Weitere geeignete Module können aus dem semesterweisen Wahlpflichtmodulangebot des FB WUBS ausgewählt werden. Die Art der Lehrveranstaltung und die Art der Prüfungsleistung eines Wahlpflichtmoduls ist dem Modulhandbuch bzw. der Modulbeschreibung zu entnehmen bzw. wird zu Beginn des Moduls durch den:die Lehrende bekannt gegeben.

More suitable modules can be chosen from the list of elective courses that is updated every semester. The type of course and the type of examination of a compulsory elective module can be found in the module handbook or the module description or will be announced by the lecturer at the beginning of the module.

### Note:

Studierende mit einem 6-semesterigen Bachelorabschluss und 180 CP haben die folgenden Möglichkeiten weitere 30 CP während des Studiums zu erwerben:

- a) Praktikum im In- oder Ausland: 30CP
- b) Ein vollständiges Semester an der University of A Coruna/Spanien: 30CP
- c) Praktikum an Partneruniversitäten/Hochschulen: 30CP = 1 Semester

### Final grade:

Students with a 6-semester Bachelor's degree and 180 CP have the following options to acquire 30 extra credits during the study programme:

- (a) German or international internship: 30 CP
- (b) Full semester at University of A Coruna/Spain: 30 CP
- (c) Internship with associated partner universities: 30 CP = 1 semester