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## Examination Regulations for the consecutive Master Programme Hydro Science and Engineering

of 14/02/2017

Pursuant to § 34 of the Higher Education Act of the Free State of Saxony (Sächsisches Hochschulgesetz - SächsHSG) as amended and promulgated on 15<sup>th</sup> January 2013 (SächsGVBl. Page 3), the Technische Universität Dresden enacts the following study regulations as a statute.

### Contents

#### Part 1: General Provisions

- § 1 Standard Period of Study
- § 2 Examination Structure
- § 3 Time Limits and Dates
- § 4 General Admission Requirements and Admission Procedure
- § 5 Examination Modes
- § 6 Written Examinations
- § 7 Seminar Papers and other written Papers
- § 8 Project Work
- § 9 Term Papers
- § 10 Presentations
- § 11 Other Examinations
- § 12 Evaluation of Examinations, Calculation and Weighting of Grades, and Announcement of Examination Results
- § 13 Absence, Withdrawals, Deceit, Breach of Regulations
- § 14 Pass and Fail
- § 15 Free Trial
- § 16 Repeat of Module Examinations
- § 17 Acknowledgement of Study Periods, Study Work, Examinations, and non-university Qualifications
- § 18 Examination Board
- § 19 Examiners and Co-examiners

- § 20 Purpose of the Master Examination
- § 21 Purpose, Issue, Submittal, Evaluation and Repeat of the Master Thesis and the Colloquium
- § 22 Study Certificate and Master Certificate
- § 23 Invalidity of Master Examination
- § 24 Assess to Examination Files

## **Part 2: Specific Provisions**

- § 25 Duration, Structure, and Extent of Study
- § 26 Required Qualifications for the Master Examination
- § 27 Object, Mode, and Extent of Master Examination
- § 28 Time required for Master Thesis and Length of Colloquium
- § 29 Master Degree

## **Part 3: Final Provisions**

- § 30 Enactment, Publication and Interim Arrangements

## Part 1: General Provisions

### § 1

#### Standard Period of Study

The standard period of study of the Master Programme Hydro Science and Engineering comprises attendance at study, self-study, and the master examination.

### § 2

#### Examination Structure

The master examination consists of module examinations, master thesis, and colloquium. The module examination completes a module and generally may consist of several single examinations. The examinations are taken during the study.

### § 3

#### Time Limits and Dates

(1) The master examination is to be taken within the standard period of study. If it is not finished during at most 4 semesters after the end of the standard period of study it is considered as failed. A failed master examination can be repeated once within one year. After expiry of that time limit the examination is again regarded as failed. A second re-examination can only be taken at the next possible date for that examination. Afterwards the master examination is considered as definitely failed.

(2) Module examinations are to be taken until the end of that semester as required in the schedule of study.

(3) Based on study regulations and the offered courses the Technische Universität Dresden enables the students to complete study work, examinations, master thesis, and colloquium within the appointed periods. The students are informed in due time about dates, type and number of study work and examinations, issue and submittal of the master thesis as well as the date of the colloquium. Additionally the date for the repeat of a module examination has to be given.

(4) During maternity protection and parental leave time limits are not allowed to start. These periods are also not counted for running time limits.

### § 4

#### General Admission Requirements and Admission Procedure

(1) The master examination can only be taken by a student who

1. has enrolled for the Master Programme Hydro Science and Engineering at the Technische Universität Dresden, and
2. has proved the required qualifications (§ 26), and
3. has presented a written declaration regarding subsection (4) paragraph 3.

(2) To take an examination students have to register beforehand. A later deregistration is possible without the need to assign reasons. The mode and the time limit for registration are appointed by the examination board and published at the beginning of the semester according to faculty custom. A deregistration has to be done not later than one day before the examination.

(3) Admission is given

1. to an examination on the basis of the respective registration,

2. to the master thesis on the basis of the request for issuing the topic, or in the case of § 21 subs. (3) paragraph 5 with the issue of the topic, and
3. to the colloquium on the basis of the evaluation of the master thesis with a grade not less than "sufficient" (4.0).

(4) Admission is refused if

1. the requirements defined in subs. (1) are not fulfilled or the procedural regulations according to subs. (2) are not fulfilled, or
2. the documents are incomplete, or
3. the student already has definitively failed an examination necessary for the completion of the Master Programme Hydro Science and Engineering.

(5) The examination board decides about the admission. A public announcement about the decision may be given. § 18 subs. (4) remains unaffected.

## § 5

### Examination Modes

(1) Examinations may be

1. written examinations (§ 6),
2. seminar papers and other written papers (§ 7),
3. project work (§ 8),
4. term papers (§ 9),
5. presentations (§ 10), and/or
6. other examinations (§ 11).

In modules which are subject to several examination regulations the use of synonyms is allowed for equivalent examinations. Multiple choice methods for written examinations are not allowed.

(2) Study work and examinations have to be performed in English.

(3) If the student shows credibly that he is unable to take examinations in the required form due to long-lasting or permanent physical disability as well as a chronic disease the chair of the examination board permits to make use of a longer time limit for the examinations or to provide them in a comparable way. As evidence a medical certificate may be asked for. In cases of doubt a certificate of a public health officer may be required. The same applies to preparatory requirements to the examination.

(4) If the student shows credibly that he is unable to take examinations as required because he has to care of his own children (up to age 14) or for near relatives the chair of the examination board permits examinations to be taken in equivalent form at a student's request. Near relatives are children, parents, grandparents, and marriage partners and life partners. The chair of the examination board decides about the way of examination together with the regular examiner giving their best judgment. To compensate for possible disadvantages the examiner may permit longer time limits, interruptions of work, the use of different media, the use of other examination rooms within the university, or a different examination date. The same applies to preparatory requirements to the examination.

## § 6

### Written Examinations

(1) In a written examination the students have to show that they are able to finish a task and to work on a given subject within a certain time limit using defined aids and adequate methods.

(2) Such written examinations, which must be successfully passed in order to continue the study, generally have to be evaluated by two examiners, but at least in the case of the last possible repeat.

The grade is the mean value of the single evaluations according to § 12 subs. (1). The evaluation procedure should be completed within four weeks.

(3) The duration of a written examination is regulated in the module descriptions and must not be less than 90 minutes and more than 240 minutes.

## § 7

### Seminar Papers and other written Papers

(1) With a seminar paper the student has to prove that he is able to work on specific problems with the help of technical literature and other working materials within a given time limit. The student has to prove whether he has profound knowledge about fundamental scientific working techniques. Other written papers, namely excursion documentations, are equal to seminar papers.

(2) § 6 subs. (2) applies to seminar papers and other written papers accordingly.

(3) Seminar papers and other written papers must not exceed 100 hours. The precise extent is specified in the module descriptions.

## § 8

### Project Work

(1) Within the project work the students generally demonstrate their ability for teamwork, and in particular for development, realization, and presentation of concepts in written form for a specific scientific issue. The students prove their competence to define targets, to provide interdisciplinary strategies and concepts within a more complex task and to record the results in written form.

(2) § 6 subs. (2) applies to project work accordingly.

(3) The time extent of a project work is given in the module descriptions and must not exceed 100 hours.

(4) In a project work submitted by a team the contribution of the individual student must be clearly discernible and assessable as well as fulfill the requirements according to subs. (1).

## § 9

### Term Papers

(1) In a term paper the students have to show that they are able to independently solve a scientific or applied task within a certain time limit. The task formulation often includes calculations. The students prove their competence to apply fundamental techniques of scientific working and may present and illustrate the results in a transparent and clear way.

(2) § 6 subs. (2) applies to term papers accordingly.

(3) The time extent of term papers is given in the module descriptions and must not exceed 100 hours.

(4) In a term paper submitted by a team the contribution of the individual student must be clearly discernible and assessable as well as fulfill the requirements according to subs. (1).

## § 10

### Presentations

(1) Giving a presentation the students have to show that they are able to prepare and present specific questions. Extent and form is given in detail with the task formulation.

(2) Presentations generally are evaluated by the lecturer who is responsible for the course where the presentation is required. § 6 subs. (2) paragraphs 1 and 2 apply to presentations accordingly.

(3) The main subject matters and the results of the presentation have to be recorded in a protocol. The result has to be announced to the student directly after the presentation.

## § 11 Other Examinations

(1) The students have to prove their academic achievements set out in the examination regulations within other examinations which are evaluated by the same standards and specifically named in the module descriptions including the requirements and, if necessary, the duration. Other examinations are oral presentations.

(2) The oral presentation is a media-supported introduction of own results and literature reviews.

(3) § 6 subs. (2) applies to other examinations in written form accordingly. § 10 subs. (2) and (3) apply to other non-written examinations accordingly. Generally these examinations are taken in front of at least two examiners (collegial examination) or one examiner and an expert observer as group examinations of up to five students or as single examinations.

## § 12 Evaluation of Examinations, Calculation and Weighting of Grades, and Announcement of Examination Results

(1) The evaluation of the individual examinations is appointed by the respective examiners. The following grades have to be used:

1 = very good	=excellent performance;
2 = good	=a performance well above the average requirements;
3 = satisfactory	=a performance which fulfills the average requirements;
4 = sufficient	=a performance which fulfills the requirements despite some deficiencies;
5 = insufficient	=a performance which does not fulfill the requirements due to significant deficiencies.

To differentiate the evaluation the grades may be lowered or raised by 0.3, excluding the grades 0.7, 4.3, 4.7 und 5.3.

(2) The module grade is the mean value of the individual examinations of the module. Any weighting is indicated in the module descriptions. Only the first decimal after comma is considered, all further decimals are cut without rounding. The module grade is for a mean value:

of up to and including 1.5	= very good
of 1.6 up to and including 2.5	= good
of 2.6 up to and including 3.5	= satisfactory
of 3.6 up to and including 4.0	= sufficient
from 4.1	= insufficient.

(3) For the master examination an overall grade is calculated. The overall grade of the master examination includes the final grade of the master thesis with 30%, and the module grades according to §27 subs. (1). The final grade of the master thesis consists of the grade for the thesis weighted with 70% and the grade for the colloquium weighted with 30%. Subs. (2) paragraphs 1 and 2 apply for the calculation of the overall and final grades accordingly. For an overall grade of 1.0 to 1.2 the title 'excellent' is awarded.

(4) The overall grade of the master examination is additionally recorded as relative grade according to the ECTS scale.

(5) The modalities for the announcement of examination results are given to the students according to faculty custom.

### § 13

#### Absence, Withdrawals, Deceit, Breach of Regulations

(1) If a student misses an obligatory examination date without serious reason or withdraws from the examination without cogent reason the examination is counted as evaluated with "insufficient" (5.0). That applies as well if the examination is not completed within the given time limit.

(2) The reason claimed for withdrawal or absence immediately has to be given and evidenced to the examination office in written form. In case of illness of the student a medical certificate may be asked for. In cases of doubt a certificate of a public health officer may be required. Concerning the observance of time limits for first examination registration, the repeat of examinations, the reasons for absence, and the observance of the time required for examinations the illness of a child that is mostly cared for by the student is equal to the illness of the student himself. If the given reason is approved a new examination date is appointed. In that case already existing examination results are counted for. The examination board decides about the acceptance of the withdrawal and the reason of absence, respectively.

(3) If a student attempts to manipulate his examination results by deceit or the use of non-permitted aids the examination is evaluated with "insufficient" (5.0). A student who interferes with the order of the examination may be suspended from the examination by the respective examiner. In that case the examination is evaluated with "insufficient" (5.0). In severe cases the examination board may suspend the student from further examinations.

(4) Subs. (1) to (3) apply to preparatory requirements to examinations, to the master thesis, and the colloquium accordingly.

### § 14

#### Pass and Fail

(1) A module examination is passed if the module grade is not less than "sufficient" (4.0). If the module examination is passed the credit points are achieved as given in the respective module description.

(2) The master examination is passed if the module examinations, the master thesis and the colloquium are passed. The master thesis and the colloquium are passed if they were evaluated with grades is not less than "sufficient" (4.0).

(3) A module examination is failed if the module grade is less than "sufficient" (4.0). A module examination which consists of several single examinations is failed as soon as it is mathematically certain that, according to § 12 subs. (2), a module grade of not less than "sufficient" (4.0) cannot be achieved anymore.

(4) A module examination is ultimately failed if the module grade is less than "sufficient" (4.0) and a repeat is not possible anymore. Master thesis and colloquium are ultimately failed if their grades are less than "sufficient" (4.0) and a repeat is not possible anymore.

(5) The master examination is failed and ultimately failed, respectively, if either a module examination, the master thesis or the colloquium are failed and ultimately failed, respectively. § 3 subs. (1) remains unaffected.

(6) If the student has failed a module examination, or the master thesis or the colloquium were evaluated with less than "sufficient" (4.0), the student is given an information whether he may repeat the respective parts, and if so to which extent and time limit.

(7) If the student has failed the master examination, he may apply for a certificate holding the performed examination parts and their evaluation and, if necessary, the missing examination parts and which clearly shows that the master examination was not passed. The student has to bring the relevant documents including a confirmation about his removal from the register of students.

#### § 15 Free Trial

(1) The student may take a module examination ahead of the study schedule (Appendix 2 of Study Regulations) if all admission requirements are fulfilled.

(2) Upon request such examinations (free trials), either passed module examinations or examinations evaluated with not less than "sufficient" (4.0), may be repeated at the next regular examination date in order to improve the achieved grade. In these cases the better result is recorded. The mode and time limit of the request are given by the examination board and are published according to faculty custom. After expiration of either the next regular examination date or the time limit for the request an improvement of the grade is no longer possible. Upon request such examinations which were evaluated with not less than "sufficient" (4.0) may be counted for at the next repeat of a module examination to improve the result.

(3) If a module examination was a free trial and was not passed it counts for not taken. Examinations that have been evaluated with not less than "sufficient" (4.0) are counted for in a new examination procedure. If the student makes use of the possibility to improve the grade of the respective examination according to subs. (2) the better result is recorded.

(4) Beyond § 3 subs. (4) an interruption of the study due to a long-lasting disease of the student himself or of his own children or the care for near relatives according to § 5 subs. (4) as well as study periods abroad are not counted for when applying the free trial rule.

#### § 16 Repeat of Module Examinations

(1) Failed module examinations may be repeated within one year after completion of the first examination attempt. The time limit starts running from the point of announcement of the first fail of a module examination. After expiry of that time limit the examinations are again regarded as failed. An examination which was not yet evaluated according to § 14 subs. (3) paragraph 2 may be repeated again at the next examination date, if the repeated module examination according to paragraph 1 was failed because that examination was evaluated with less than "sufficient" (4.0). Failing due to the expiry of a time limit according to § 3 subs. (1) paragraph 2 counts as evaluation. If examinations are repeated according to paragraph 4 this is counted for a first repeat of the module examination.

(2) A second re-examination can only be taken at the next possible date for that examination. Afterwards the module examination is considered as definitely failed. A further repeat is not permitted.

(3) The repeat of a failed module examination which consists of several single examinations solely applies to examinations evaluated with less than "sufficient" (4.0).

(4) The repeat of a passed module examination is permitted for the case according to § 15 subs. (2) only and applies to all examinations.

(5) Failed attempts of a module examination of the same or other degree programmes are counted for.

#### § 17



## Acknowledgement of Study Periods, Study Work, Examinations, and non-university Qualifications

- (1) Study periods, study work and examinations are regarded as equivalent without further verification if they were performed within an identical degree programme in Germany.
- (2) Non-university qualifications as well as study periods, study work and examinations which are not specified in subs. (1) are counted for upon request if they are equivalent. Equivalence is given if content, extent, and requirements largely equate parts of the study within the Master Programme Hydro Science and Engineering at Technische Universität Dresden. Here no schematic comparison but a comprehensive consideration as well as an overall evaluation has to be carried out. For the acknowledgement of study periods, study work and examinations which were performed outside of Germany the Lisbon Convention of 11 November 1997, the equivalence agreements approved by the Standing Conference of Ministers of Education and Cultural Affairs and the Conference of University Rectors as well as agreements within university co-operation contracts have to be considered.
- (3) If study work, examinations or non-university qualifications are counted for according to subs. (2) the respective study periods are officially acknowledged as well. The grades have to be accepted, where the grades' system is comparable, and have to be included into the calculation of composited grades. If the grades' system is not comparable the remark "passed" is added but the grades are not included into the further calculation of grades. A designation of the acknowledgement in the certificate is allowed.
- (4) The acknowledgement is given by the examination board. The student has to provide the required documents. The acknowledgement of study periods, study work and examinations according to subs. (1) is given officially.

### § 18

#### Examination Board

- (1) For the Master Programme Hydro Science and Engineering an examination board has been established to perform and organize examinations, and to fulfill the tasks specified within the present examination regulations. The examination board is composed of three professors, an academic member of staff and a student. The mandate is limited to three years for all members except the student member, for whom the mandate is generally given for one year.
- (2) The chairman, his proxy and all further members and their proxies are appointed by the faculty council of the Faculty of Forest, Geo, and Hydro Sciences. The student member is suggested by the student representatives of the department. The chairman generally manages the day-to-day business of the examination board.
- (3) The examination board has to ensure the abidance of the provisions of the examination regulations. It regularly has to report to the Faculty of Forest, Geo, and Hydro Sciences about the state of examination and study periods including the actual time required for the master thesis, and the distribution of module grades and overall grades. The report has to be disclosed in an appropriate way by the Technische Universität Dresden. The examination board may propose a reform of the examination regulations, the study regulations, the module descriptions, and the study schedule.
- (4) Incriminating decisions have to be announced to the student in written form, reasons and legal remedies available have to be given. The examination board decides about objections within an adequate time limit and issues the respective official notifications.
- (5) The members of the examination board have the right to be present at examinations and the colloquium.
- (6) The members of the examination board and their proxies are bound to official secrecy. If they are not employees of the public service the chairman has to oblige them to official secrecy.

(7) Based on the decisions of the examination board the examination office organizes the examinations and administrates the examination documents.

#### § 19

##### Examiners and Co-examiners

(1) As examiners the examination board appoints professors and other persons who are legitimate to examine. These persons have to be entitled to independent teaching within the field which is subject to the examination or the master thesis and the colloquium, unless there are fundamental reasons for a modification of that regulation. A person is appointed as co-examiner only if the respective master examination or a comparable examination was passed successfully.

(2) The student may propose a supervisor for his master thesis as well as the examiners for oral examinations and the colloquium. The proposal does not constitute a legal claim.

(3) The names of the examiners have to be announced to the student in due time.

(4) § 18 subs. (6) applies to examiners and co-examiners accordingly.

#### § 20

##### Purpose of the Master Examination

The pass of the master examination marks the completion of the master programme regarding the obtained professional qualification. Within the master examination the student proves that he has acquired the profound knowledge and skills which are necessary to meet the technical and interdisciplinary scientific requirements regarding the aspired professional field. The graduate is able to overlook the conditions for the transformation of his specific technical knowledge into practice.

#### § 21

##### Purpose, Issue, Submittal, Evaluation and Repeat of the Master Thesis and the Colloquium

(1) The master thesis has to show the student's ability to work on specific tasks within a given time limit using scientific methods.

(2) The master thesis is supervised by a professor or another person who is legitimate to examine according to the Higher Education Act of the Free State of Saxony (Sächsisches Hochschulgesetz) provided that he is teaching within a compulsory module of the Master Programme Hydro Science and Engineering at the Technische Universität Dresden. If the master thesis is to be supervised by another professor or another person who is legitimate to examine according to the Higher Education Act of the Free State of Saxony (Sächsisches Hochschulgesetz) the chairman of the examination board has to give his consent.

(3) The subject of the master thesis is issued by the examination board. Subject and date of issue must be recorded. The student may propose subjects. Upon the student's request the examination board initiates the issue of the subject of the master thesis in due time. The topic will be issued not later than six weeks after the last module examination. Within this period the student may apply for an extension of the time limit of another six weeks.

(4) The topic may be returned only once and a time limit of at most two months after the date of issue has to be kept. In case of a repeat of the master thesis a return of the topic is only permitted if the student has not made use of this possibility while his first attempt.

(5) The master thesis may be provided as teamwork. In this case the student's individual contribution which is to be evaluated as master thesis must be clearly distinguishable and assessable on the basis

of chapters, page numbers, or other objective criteria, and must fulfill the requirements given in subs. (1).

(6) The master thesis has to be submitted in English in two typewritten and bound copies as well as in digital form at the examination office on the due date. Upon student's request and in agreement with the supervisor the master thesis may be written in German. The date of the submission must be recorded. The student has to declare in written form whether he has written his master thesis (or the respective individual part of the teamwork) independently without using other than the stated sources and aids.

(7) The master thesis has to be evaluated by two examiners according to § 12 subs. (1) paragraph 1. The supervisor of the master thesis has to be one of the examiners. The evaluation procedure shall not exceed four weeks.

(8) The grade of the master thesis is the average of the single grades given by the two examiners. If the single grades of the examiners vary by more than two grades the average only is decisive if both examiners agree. In case of disagreement the examination board will request the evaluation of a third examiner. Then the grade of the master thesis is the average of the three single grades. § 12 subs. (2) paragraphs 2 and 3 apply accordingly.

(9) If one of the examiners evaluated the thesis with not less than "sufficient" (4.0) and the other with "insufficient" (5.0) the examination board will request the evaluation of a third examiner which is then decisive for pass or fail of the master thesis. If passed the grade is the average of the single grades voting pro pass, otherwise the average of the single grades voting contra pass. § 12 subs. (2) paragraphs 2 and 3 apply accordingly.

(10) With a grade less than "sufficient" (4.0) the master thesis may be repeated once within one year. For the issue of the topic in case of repeat a time limit of six weeks after the announcement of the examination result has to be kept.

(11) The student has to present his master thesis during a public colloquium in the presence of the supervisor acting as examiner and a co-examiner. Other examiners may be asked to participate. Subs. (10) as well as § 9 subs. (4) and § 12 subs. (1) paragraph 1 apply accordingly.

## § 22

### Study Certificate and Master Certificate

(1) The student is issued with a study certificate about the passed master examination without delay, if possible within four weeks. The study certificate of the master examination includes the evaluations of the modules according to § 27 subs. (1), the subject of the master thesis, its grade and supervisor, and the overall grade. Upon student's request the evaluation of additional modules and the duration of study until the completion of the master examination may be included into the certificate. If the legal requirements are fulfilled the grades of the respective examination year (transcript of records, rank) may be included as supplement. The evaluation of the single examinations is separately attached to the study certificate.

(2) Together with the study certificate of the master examination the student gets the master certificate bearing the date of the study certificate. The master certificate certifies the award of the degree "Master of Science". The master certificate is signed by the rector and the chairman of the examination board. It bears the seal of the Technische Universität Dresden. Additionally the English translations of the certificates are issued.

(3) The study certificate has the date of the last examination part according to § 14 subs. (2). It is signed by the chairman of the examination board and bears the seal of the Department of Hydrosiences of the Technische Universität Dresden.

(4) The Technische Universität Dresden issues a Diploma Supplement (DS) according to the "Diploma Supplement Model" of the European Union/European Council/UNESCO. As presentation of the national educational system (DS-section 8) the text agreed upon between KMK and HRK has to be used in the respective legal version.

#### § 23

##### Invalidity of Master Examination

(1) If the student deceived at an examination and this fact becomes known only after the issue of the study certificate, the evaluation of the examination may be revised according to § 13 subs. (3). Where required the module examination may be declared as "insufficient" (5.0), and the master examination as failed by the examination board. That applies to master thesis and colloquium accordingly.

(2) If the requirements for an examination were not fulfilled without the student's intention to deceive and this fact becomes known only after the issue of the study certificate this default is cured by the pass of the examination. If the student has intentionally and wrongly obtained the taking of an examination this examination may be declared as "insufficient" (5.0) together with the module examination by the examination board and the master examination may be declared as failed. That applies to master thesis and colloquium accordingly.

(3) The student has to be given the opportunity to comment on the incident before a decision.

(4) The wrong study certificate has to be withdrawn by the chairman of the examination board and, where required, a new one has to be issued. Together with the wrong study certificate the master certificate and the Diploma Supplement have to be withdrawn if the master examination was declared as failed due to deceit. A decision according to subs. (1) and subs. (2) paragraph 2 or 3 is barred after a time limit of five years starting with the date of the issue of the study certificate.

#### § 24

##### Assess to Examination Files

Within one year after the completion of the examination procedure the student upon request may be allowed inspection of his written examinations, the related reviews, and the examination protocols.

## Part 2: Specific Provisions

#### § 25

##### Duration, Structure, and Extent of Study

(1) The standard period of study is four semesters according to § 1.

(2) The programme has a modular structure and is completed with the master thesis and the colloquium. It is divided into a basic course (one semester) and an advanced course (three semesters).

(3) If the master examination was passed a total of 120 credit points is acquired from the modules as well as the master thesis and the colloquium.

#### § 26

##### Required Qualifications for the Master Examination

To take an examination certain preparatory requirements to the exam may be demanded. The number and the character are given in the module descriptions. The number of possibilities to repeat

may be limited. Before the colloquium the master thesis has to be evaluated with not less than "sufficient" (4.0).

## § 27

### Object, Mode, and Extent of Master Examination

(1) The master examination includes all module examinations of the compulsory part and the elected modules of the optional part as well as the master thesis and the colloquium.

(2) The modules of the compulsory part are

1. MHSE 01 Statistics (Angewandte Statistik)
2. MHSE 02 Climatology and Hydrology (Klimatologie und Hydrologie)
3. MHSE 03 Geodesy (Geodäsie)
4. MHSE 04 Soils (Bodenkunde)
5. MHSE 09 Study Project IWRM (Projektstudium IWRM)

for students with a degree in natural sciences

6. MHSE 05 Hydromechanics (Hydromechanik)
7. MHSE 06 Hydraulic Engineering (Wasserbau)

for students with a degree in engineering

8. MHSE 07 Ecology (Ökologie)
9. MHSE 08 Hydrochemistry (Hydrochemie)

(3) The modules of the optional part are

10. MWW16 Integriertes Wasserressourcenmanagement (IWRM)
11. MHSE 10 International Water Issues
12. MHSE 11 Circular Economy (Kreislaufwirtschaft)
13. MHSE 12 Watershed Management I (Flussgebietsmanagement I)
14. MHSE 13 Urban Water I (Siedlungswasserwirtschaft I)
15. MHSE 14 Flood Risk Management I (Hochwasserrisikomanagement I)
16. MHSE 15 Biotechnology (Biotechnologie)
17. MHSE 16 Aquatic Ecology and Ecotoxicology (Aquatische Ökologie und Ökotoxikologie)
18. MHSE 17 Climate Change (Klimawandel)
19. MHSE 18 Soil Water (Bodenwasser)
20. MHSE 19 Ground Water (Grundwasser)
21. MHSE 20 Hydrodynamics (Hydrodynamik)
22. MHSE 21 Watershed Management II (Flussgebietsmanagement II)
23. MHSE 22 Urban Water II (Siedlungswasserwirtschaft II)
24. MHSE 23 Flood Risk Management I (Hochwasserrisikomanagement I)
25. MHSE 24 Water Quality and Water Treatment (Wasserqualität und Wasseraufbereitung)
26. MHSE 25 Drinking Water Supply (Trinkwasserversorgung)

from which modules equivalent to a total of 50 credit points have to be elected.

(4) The required examinations within the individual modules, their number and character are given in the module descriptions. Object of the examinations are the contents and the acquired competences of the module, unless the module description includes a different regulation.

(5) The student may take further module examinations (additional modules) than those scheduled according to subs. (1). These module examinations may optionally be taken out of the entire range of modules of the Technische Universität Dresden or a cooperating university. The student may apply for the acknowledgement of an additional module as optional module at the examination board.

Module examinations of additional modules which are not acknowledged as optional module are not included into the calculation of the student's workload and are not considered for the calculation of the overall grade.

#### § 28

##### Time required for Master Thesis and Length of Colloquium

(1) The time required for the master thesis is four months. 27 credit points are acquired. The subject, task formulation and extent of the master thesis have to be assessed by the supervisor in such a way that the time limit for completion is kept. In particular cases the examination board may exceptionally extend the time limit for at most 8 weeks on a well-founded application. The amount of credit points remains unaffected hereof.

(2) The student has to present his master thesis during a public colloquium of 20 to 30 minutes in the presence of the supervisor acting as examiner and a co-examiner. Other examiners may be asked to participate. 3 credit points are acquired.

#### § 29

##### Master Degree

If the master examination is passed the university degree "Master of Science" (M.Sc.) is awarded.

### Part 3: Final Provisions

#### § 30

##### Enactment and Publication

(1) These examination regulations come into effect on 26/09/2011 and are published in the Official Publications (Amtliche Bekanntmachungen) of the Technische Universität Dresden.

(2) Students who started their studies and the master examination in the Master Programme Hydro Science and Engineering and the Postgraduate Study Course Hydro Science and Engineering, respectively, before these regulations came into effect complete their master examination according to the examination regulations from 20/08/2007.

Issued according to the decision of the Faculty Council of the Faculty of Forest, Geo and Hydrosiences on 26/09/2011 and the approval of the Rector on xxxxx.

Dresden, #date#

Rector of the Technische Universität Dresden

Prof. Dr. Dr.-Ing. Hans Müller-Steinhagen