Technische Universität Dresden Faculty of Forest, Geo and Hydro Sciences

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## Examination Regulations for the non-consecutive International Master Course Hydro Science and Engineering

## of 26/09/2011

Pursuant to Higher Education Act § 36 of Free State of Saxony (Sächsisches Hochschulgesetz - SächsHSG) of 10 December 2008 (SächsGVBI. p. 900), last amended by article 10 of the Act of 26 June 2009 (SächsGVBI. pp. 375, 377), Technische Universität Dresden enacts the following examination regulations as a statute.

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### Part 1: General Terms

#### § 1

## Standard Period of Study

The International Master Course Hydro Science and Engineering standard period of study includes attendance of classes, self-study, and master examination.

## § 2 Examination Structure

The master examination consists of module examinations, master thesis, and colloquium. Each module examination completes a module and generally may consist of several single examinations. Module examinations are to be taken during studies.

### §З

### Time Limits and Dates

(1) The master examination has to be taken within the standard period of study. If it is not finalized 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 the respective semester as required by the study schedule.

(3) Based on study regulations and offered courses, Technische Universität Dresden will enable students to complete study work, examinations, master thesis, and colloquium within the appointed periods. Students are informed in due time on appointments for study work and examinations, on date of official release of master thesis subject, deadline of master thesis submittal and date of the final colloquium. The date for a module examination repetition has to be communicated respectively.

(4) During maternity protection and parental leave deadlines and time limits are not valid. These periods are excluded from running time limits.

### §4

#### General Admission Requirements and Admission Procedure

- (1) The master examination only can be taken by a student
  - 1. enrolled in the Master Course Hydro Science and Engineering at Technische Universität Dresden, who
  - 2. proved evidence of the required qualifications (§ 26), and
  - 3. presented a written declaration regarding subsection (4) paragraph 3.

(2) To take an examination students have to register beforehand. Mode and time limit for registration are fixed by the examination board and are published at the beginning of each semester according to faculty custom. It is possible to sign out without stating reasons. Registration has to take place not later than seven days before, deregistration not later than one day before the examination.

- (3) Admission is permitted to
  - 1. Examination: on the basis of the respective registration,
  - Master thesis: upon request for release of topic, or in case of § 21 subs. (3) paragraph
    5 with release of topic, and
  - 3. Colloquium: upon master thesis evaluation not less than "sufficient" (grade 4.0).
- (4) Admission is refused if
  - 1. Requirements defined in subs. (1) are not fulfilled or procedural regulations according subs. (2) are not fulfilled, or
  - 2. Documents are incomplete, or
  - 3. The student already has definitively failed an examination necessary for the completion of the Master Course Hydro Science and Engineering.

(5) The examination board shall decide on admission. Public announcement of the decision is optional. § 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 permitted.

(2) If a student can credibly show inability to take examinations in the required form due to long-lasting or permanent physical disability or chronic disease, the chair of the examination board will give permission for a different examination time limit or for a comparable way to provide examination. 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 examination requirements.

(3) If a student can credibly show inability to take examinations as required because there are own children (up to age 14) or near relatives to be taken care of, the chair of the examination board will give permission for examinations in equivalent form upon student's request. Near relatives are children, parents, grandparents, marriage partners, and life partners. In communication with the regular examining professor the examination board chair decides about the way of examination to 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 examination requirements.

## § 6

## Written Examinations

(1) In a written examination 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. Several optional tasks or topics may be offered to choose.

(2) Such written examinations, which must be successfully passed in order to continue studies, have to be evaluated by two examiners, definitely in case of the last possible repetition. The finally calculated grade is the average of each individual evaluation according to § 12 subs. (1). The evaluation procedure should be completed within four weeks. Together with announcement of grades the statistical distribution of grades should be made public.

(3) Duration of a written examination is regulated in the respective module description and must not be less than 90 minutes or more than 180 minutes.

§ 7

Seminar Papers and other written Papers

(1) A seminar paper should be proof of evidence of the ability to work on specific problems with the help of technical literature and other working materials within a given time limit. The student has to show competence in fundamental scientific techniques. Other written documents, 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 a work load of 100 hours. The precise extent is specified in each module description.

#### § 8 Project Work

(1) During project work students generally demonstrate their ability for teamwork, in particular in development, implementation, and presentation of concepts. The students prove competence to define targets and to provide interdisciplinary strategies and concepts within a more complex task.

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

(3) The work load of a project work is given in each module description and must not exceed 100 hours.

(4) In a project paper submitted by a team, the contribution of each individual student must be evident and assessable and in each case fulfill the requirements according to subs. (1).

## §9

#### Term Papers

(1) In a term paper, students have to show that they are able to independently solve a scientific or applied task within a certain time limit using technical literature. The students prove competence to apply fundamental techniques in a scientific approach and may present and illustrate results in a transparent and clear way.

(2) Term papers generally are evaluated by the lecturer responsible for the class. § 6 subs.(2) applies to term papers accordingly.

(3) Work load for term papers is given in the individual module description and must not exceed 100 hours.

(4) In a term paper submitted by a team, the contribution of each individual student must be evident and assessable and in each case fulfill the requirements according to subs. (1).

### § 10

#### Presentations

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

(2) Presentations generally are evaluated by the lecturer responsible for the class. § 6 subs.(2) paragraphs 1 and 2 apply to presentations accordingly.

(3) Main subject matters and result 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) Students have to prove their academic achievements set out in the examination regulations within "other examinations" evaluated by the same standards and specifically named in the module description including requirements and duration, if necessary. "Other examinations" are oral presentations and protocols.

(2) "Oral presentation" is a media-supported introduction of own results and literature review. A "protocol" recapitulates chronologically the schedule of an excursion or a practical training with regard to the content.

(3) § 6 subs. (2) applies to other examinations in written form accordingly. § 9 subs. (2) and (4) apply to other non-written examinations accordingly.

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

(1) Individual examination grading scale is defined by the respective examiner. Grades to be used:

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

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

(2) Final module grade is the weighted mean of all individual examinations of the module. Weighting is indicated in the module description. Only the first decimal digit is considered, all further decimals are cut without rounding. The resulting module grade depending on average is:

Up to and including 1.5	=very good
1.6 to and including 2.5	=good
2.6 to and including 3.5	=satisfactory
3.6 to and including 4.0	=sufficient
Beyond 4.1	=insufficient.

(3) For the master examination an overall grade is calculated. To be included in the overall grade of the master examination the final grade of the master thesis is weighted with 30%,

additionally, module grades, weighted already before referring to credit points, are included with 70% 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 recorded additionally as relative grade according to the ECTS scale.

(5) The modalities for examination result announcement are communicated to the students according to faculty custom.

# § 13

Absence, Withdrawal, Deceit, Breach of Regulations

(1) An examination shall be graded as "insufficient" (5.0), if a student is absent during an obligatory examination without good reason or resigns without good reason. The same applies if an examination is not completed within the given time limit.

(2) The reason claimed for withdrawal or absence immediately has to be communicated and evidenced to the examination office in written form. In case of illness a medical certificate may be asked for. In case of doubt a certificate of a public health officer may be required.

Concerning the observance of time limits for first examination registration, repetition of examinations, reason for absence, and examination time limit, illness of an own child mostly cared for by the student alone is equal to the illness of the student herself/himself. If the claimed reason is approved a new examination date is fixed. Already existing examination results are to be included. On acceptance of withdrawal or approval of reason of absence, respectively, the examination board will decide.

(3) An examination shall be graded as "insufficient" (5.0), if a student attempts to manipulate examination results by deceit or use of unauthorized aids. A student disturbing the correct progress of examination may be suspended from the examination by the respective examiner. In this 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) shall apply to preparatory examination requirements, master thesis, and colloquium accordingly.

#### § 14

#### Pass and Fail

(1) A module examination is validated as "passed" if the module grade is "sufficient" (4.0) and better. If the module examination is passed credit points are achieved as defined in the respective module description.

(2) The master examination is validated as "passed" if module examinations, master thesis and colloquium are passed. Master thesis and colloquium are validated as "passed" if they were evaluated with "sufficient" (4.0) or better.

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

(4) A module examination is validated as "ultimately failed" if the module grade is less than "sufficient" (4.0) and there is no chance for repetition left anymore. Master thesis and colloquium are validated as "ultimately failed" if their grades are less than "sufficient" (4.0) and there is no chance for repetition left anymore.

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

(6) If the student failed a module examination, or master thesis or colloquium was evaluated worse than "sufficient" (4.0), the student will be informed whether repetition is possible, to which extent and time limit.

(7) In case the student did not pass the master examination, upon request and evidence of requested documents including deregistration proof, a certificate may be issued specifying accomplished examinations, grades and, if appropriate, missing examination parts, indicating clearly that the master examination was not passed.

#### § 15

### Free Trial

(1) It is permitted to take a module examination ahead of study schedule (Appendix 2 of Study Regulations) if all admission requirements are fulfilled (free trial).

(2) Upon request such examinations (free trials) graded as "passed" or not less than "sufficient" (4.0) may be repeated once at the next regular examination date in order to improve the achieved grade. In this case, the better result counts. Mode and deadline of the request are defined by the examination board and published according to faculty custom. After expiration of the next regular examination date or request deadline an improvement of the grade is no longer possible. Upon request free trial examinations graded not less than "sufficient" (4.0) may be taken into account in case of module examination repetition.

(3) A failed free trial module examination counts as not taken. Examinations graded not less than "sufficient" (4.0) are considered 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), for the application of the free trial regulation interruption of studies due to a long-lasting disease of the student himself or of his own children or times for care taking of near relatives according to § 5 subs. (4) or due to a study period abroad is not considered.

#### § 16

## Repetition of Module Examinations

(1) Failed module examinations may be repeated within one year after completion of the first attempt. Time limit starts running from the point of announcement of the first fail. After expiry of that time limit the examination is again regarded as failed. An examination which was not yet graded 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 due to evaluation less than "sufficient" (4.0). Fail due to expiry of time limit according to § 3 subs. (1) paragraph 2 counts as evaluation. If examinations are repeated according to paragraph 4 this is recorded as module examination first repetition.

(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". Further repetition is not permitted.

(3) Repetition of a failed module examination consisting of several single examinations solely applies to part examinations evaluated with less than "sufficient" (4.0).

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

(5) Failed attempts of module examinations of the same or other degree programmes are integrated.

## § 17

## Acknowledgement of Study Periods, Study Work, Examinations, Non-University Qualifications

(1) Study periods, study work and examinations are regarded as equivalent without further verification if they were performed within a similar 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 adopted upon request if they are equivalent. Equivalence is given if content, extent, and requirements essentially are similar to studies related to the International Master Course Hydro Science and Engineering at Technische Universität Dresden. In this case, not a schematic comparison but a comprehensive consideration and overall evaluation has to be carried out. For the acknowledgement of study periods, study work and examinations accomplished abroad, 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 approved 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, however, grades are not included into further calculation of grades. A designation of the acknowledgement in the certificate is allowed.

(4) The acknowledgement is decided on by the examination board. The student has to provide the required documents. Study periods, study work and examinations are acknowledged according to subs. (1) officially.

#### § 18

## Examination Board

(1) For the International Master Course Hydro Science and Engineering an examination board has been established to supervise performance and organization of examinations, and to fulfill the tasks specified within the present examination regulations. The examination board is composed of three professors, an academic staff member 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 deputy and all further members and their deputies are appointed by the faculty council of the Faculty of Forest, Geo, and Hydro Sciences. The student member is

suggested by the department's student representatives. In general, the chairman will manage day-to-day business of the examination board.

(3) The examination board will ensure full compliance of examination regulations. On regular basis the board will report to the Faculty of Forest, Geo, and Hydro Sciences on developments, examinations and study periods, including actual timeframe required for the master thesis, distribution of module grades and overall grades. The report has to be disclosed appropriately by Technische Universität Dresden. The examination board may suggest reforming of examination regulations, study regulations, module descriptions, or study schedule.

(4) Negative decisions are to be communicated in written form to the student, reasons and legal remedies available have to be explained. The examination board will decide on options for objections within an adequate time limit and will issue the respective official notifications.

(5) Examination board members have the right to be present at examinations and colloquium.

(6) Examination board members and deputies 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 will organize examinations and administrate documents and examination records.

#### § 19

#### Examiners and Co-examiners

(1) The examination board shall appoint professors and other persons who are legitimate to carry out examinations. These persons have to be entitled to independent teaching within the field subject to examination or master thesis and 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 examination and 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

To pass the master examination indicates the completion of the master course regarding the professional qualification obtained. During master examination the student shall prove acquirement of profound knowledge and skills necessary to meet technical and interdisciplinary scientific requirements with regard to aspired professional fields. The graduate student is able survey options for implementation of his specific knowledge into practice.

§ 21

Purpose, Assignment, Submittal, Evaluation, Repetition, of Master Thesis and Colloquium

(1) The master thesis has to show the student's ability to work on a specific task 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 the person is teaching one of the compulsory modules of the International Master Course Hydro Science and Engineering at 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 examination board chair has to give consent.

(3) The master thesis subject is assigned by the examination board. Subject and date of assignment must be recorded. The student may suggest subjects. Upon student's request the examination board shall initiate the assignment of the master thesis subject in due time. The topic will be assigned not later than six weeks after the last module examination. Within this period the student may apply for an extension of another six weeks. The student may apply to the examination board to assign the master thesis topic before completion of all module examinations. In this case, the student has to provide a comprehensible work and examination plan.

(4) It is permitted only once to return the topic, a time limit of maximum two months after the assignment date has to be kept. In case of master thesis repetition a return of the topic is only permitted if the student has not made use of this possibility during first attempt.

(5) The master thesis may be provided as teamwork. In this case the student's individual contribution 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 due date. Upon student's request and in agreement with the supervisor the master thesis may be written in German. Submission date must be recorded. A declaration in written form is necessary to certify independent preparation of master thesis (or respective individual part of teamwork) without use of 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 master thesis' supervisor 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 found by the two examiners. If the single grades of the examiners vary by more than two grades the average only is final if both examiners agree. In case of disagreement the examination board will request the evaluation by a third examiner. Then the grade of the master thesis is the average of three single grades. § 12 subs. (2) paragraphs 2 and 3 apply accordingly.

(9) If one of the examiners evaluated the thesis with no worse 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 will be 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 worse than "sufficient" (4.0), the master thesis may be repeated once within one year. For the assignment of the topic in case of repetition a time limit of six weeks following the announcement of the examination result has to be kept.

(11) The student has to present his/her master thesis during a public colloquium in the presence of the supervisor acting as examiner and one 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) A study certificate including the master examination "passed" will be handed over to the student 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 request evaluation of additional modules and duration of study until the completion of the master examination may be included into the certificate. If all legal requirements are fulfilled, the grades of the respective examination year (transcript of records, rank) may be included as supplement. Evaluation of each single examination is attached separately to the study certificate.

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

(3) The study certificate records the date of the final examination according to § 14 subs. (2). It is signed by the examination board chair and bears the seal of Technische Universität Dresden Department of Hydrosciences.

(4) Technische Universität Dresden commonly issues a Diploma Supplement (DS) according to the "Diploma Supplement Model" of the European Union/European Council/UNESCO. As representation 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

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

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

(3) The student shall have opportunity to comment on the incident before a decision.

(4) The examination board chair has to withdraw the wrong study certificate 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 Access to Examination Files

Upon request, inspection of written examinations, related reviews, and examination protocols shall be permitted within one year after examination procedure completion.

## Part 2: Specific Terms

§ 25

Duration, Structure, Extent of Study

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

(2) The International Master Course Hydro Science and Engineering has a modular structure and is completed with the master thesis and the colloquium. It is divided into basic course (one semester) and advanced course (three semesters).

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

§ 26

## Required Qualifications for the Master Examination

To take an examination certain preparatory requirements for the exam may be necessary. Number and character are given in the module description. Number of possibilities to repeat may be limited. The master thesis has to be evaluated no worse than "sufficient" (4.0) before the colloquium is taking place.

§ 27

Object, Mode, Extent of Master Examination

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

Particularly for students with a degree in natural sciences:

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

Particularly 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)

A combination of modules equivalent to a total of 50 credit points have to be selected.

(4) Required examinations within each individual module, their number and character are given in the module description. Object of the examinations are module content and acquired competence, unless the module description includes a different regulation.

(5) The student may take further module examinations of additional modules, more than those scheduled according to subs. (1). These module examinations may optionally be selected out of the entire spectrum of Technische Universität Dresden modules or a cooperating university. The student may apply for the acknowledgement of an additional module as optional module to the examination board. Module examinations of additional modules which are not acknowledged as optional module are not included into calculation of the student's workload and are not considered for the calculation of overall grade.

### § 28 Time required for Master Thesis, Length of Colloquium

(1) The time required for the master thesis is fixed on 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 can be kept. In particular cases the examination board may exceptionally extend the time limit for at most 13 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 Technische Universität Dresden.

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

This examination regulations are issued according to the decision of the Faculty Council of the Faculty of Forest, Geo and Hydrosciences 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