



## Administrative Manual - Part 1

Without FME

examination regulations 1.6

A-circular

published on: 28.02.2012

### Faculty of computer science

## Examination Regulations

for the Master's programs

Data and Knowledge Engineering

and

Digital Engineering

from 11.01.2012

Due to the Higher Education Law of the State of Saxony-Anhalt, 5 May 2004 (GVBl., LSA p. 256), as last amended by the Act to amend the university law provisions of 16 July 2010 (GVBl., LSA S. 436), the Otto-von-Guericke-University Magdeburg adopt the following Articles of Incorporation:

English translation is only for information. The legal documents are the German regulations.  
See <http://www.cs.uni-magdeburg.de/ordnungenma.html> .

## Table of Content

|   |           |
|---|-----------|
| <b>I. General Section .....</b>   | <b>3</b>  |
| § 1 Scope .....   | 3         |
| § 2 Duration and structure of the course .....                                  | 3         |
| § 3 Academic degree .....   | 3         |
| § 4 Study admission .....   | 3         |
| § 5 Audit Committee .....   | 4         |
| § 6 Examiners and Assessors .....   | 5         |
| § 7 Recognition of study periods, study and examination .....                   | 5         |
| § 8 Study shares abroad.....  | 6         |
| § 9 Examination requirements.....   | 6         |
| § 10 Types of examinations for / protection; disadvantage compensation .....    | 6         |
| § 11 Public of oral examinations.....   | 8         |
| § 12 Admission to study accompanying audit services.....                        | 8         |
| § 13 Assessment of the examinations and forming of the module grades .....      | 8         |
| § 14 Repetition of Examinations .....   | 9         |
| § 15 Additional examinations .....  | 10        |
| <b>II. Master's degree.....</b>   | <b>10</b> |
| § 16 Registration for the master's thesis and the assignment of the topic ..... | 10        |
| § 17 Processing and submission of the master's thesis .....                     | 11        |
| § 18 Colloquium and Assessment .....  | 11        |
| § 19 Repetition of the thesis and the colloquium for the master's thesis .....  | 12        |
| § 20 Overall result of the master's examination .....                           | 12        |
| § 21 Certificates and confirmations .....                                       | 12        |
| § 22 Charter .....  | 13        |
| <b>III. Final provisions.....</b>   | <b>13</b> |
| § 23 Access to examination records .....  | 13        |
| § 24 Absence, withdrawal, deceit, breach of regulations.....                    | 13        |
| § 25 Invalidation of audit services .....                                       | 13        |
| § 26 Decisions, contradiction method .....                                      | 14        |
| § 27 University public announcements of the audit committee .....               | 14        |
| § 28 Transitional provisions .....  | 14        |
| § 29 Entry into force.....  | 15        |
| Attachments: Regular study plan .....   | 15        |

# I. General Section

## § 1 Scope

- (1) The present examination regulations regulate the examinations in the Master's programs Data & Knowledge Engineering (DKE) and Digital Engineering (DigiEng) at the faculty of computer science at the Otto-von-Guericke-University Magdeburg.
- (2) These programs are research-based, consecutive attendance course of study.
- (3) They are carried out in full-time study.
- (4) They can be studied in German and English.
- (5) The Degree eligible to apply for a doctoral project.

## § 2 Duration and structure of the course

- (1) The standard period of study is 4 semesters including the Master's examination.
- (2) The master's degree consists of the module examinations and the master's thesis with colloquium.
- (3) The course is established modular. For each module successfully completed, a certain number of credit points (CP) are awarded according to the European Credit Transfer System (ECTS). The modules are assigned to study related study areas according to regular study plans. In each study area a number of CP exams referred to in the respective regular study plans has to be taken. Module examinations consist of an examination. Audit services can be provided during or at the end of each module.
- (4) For the successful completion of the study overall 120 CP must be proved. For this it is necessary to have a certain number of elective modules successfully completed. The completion of additional modules is also possible by free choice. The modules, the audit services and the assignment of the CPs to the individual modules are defined in the module handbook of the corresponding study program and are published on the internet and kept up to date.
- (5) The program is designed in such a way that it can be completed successfully in the standard period of study.
- (6) A module examination may only be held if the requirements for admission to the audit service (according to module description) can be proven.

## § 3 Academic degree

After passing the master examination in both master's programs mentioned above, the Otto-von-Guericke-University awards the academic degree

"Master of Science"  
abbreviated as "M. Sc."

## § 4 Study admission

- (1) Admission requirement is the proof of a bachelor's degree or a university diploma from the scope of the Basic Law or completion of a "Magister" degree program or with a state examination completed topic related study program while
  - DKE: in computer science, or in one of the computer science-related field of study with at least 60 credit in computer science-related courses
  - DigiEng: in computer science or in a computer science or engineering related field of study

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- (2) Additional admission requirements include that the first-professional qualifying degree referred to in paragraph 1 was gained with good or very good grades in a related field of study and that the standard period of study lasted at least 6 semester or at least 180 CP were acquired.

The Audit Committee determines the admission of topic-related study (see paragraph 1).

- (3) Furthermore, to demonstrate sufficient knowledge of the English or the German language, namely at the level of university entrance qualification. Foreign applicants must either submit the DSH-2 or the TestDaf with 4/4/4/4 or the TOEFL (with the following minimum scores: 527 paper-based or 197 computer-based or 71 internet-based) or IELTS (overall score of at least 6.0) or have passed the CAE (Cambridge Certificate in Advanced English) with at least "B" or the CPE (Certificate of Proficiency in English) with at least "C".

In justified exceptional cases equivalent certificates credit can be acknowledged for evidence of language proficiency. The Audit Committee decides on the recognition of the corresponding certificate.

- (4) The certificates and documents shall be submitted in German or English language or in an appropriate translation translated by a sworn translator.
- (5) The Audit Committee decides on exceptions.

## **§ 5 Audit Committee**

- (1) An audit committee is formed to carry out the assigned tasks of these examination regulations. The audit committee usually consists of seven members. The chairman, the representative chairman and two other members selected from the group of professors, assistant professors and junior professors, university teachers and lecturers, two members of the group of scientific staff and female employees and one member selected from the group of students.
- (2) The audit committee shall ensure the realization of the examinations. It shall ensure that the provisions of these examination regulations are complied. It gives suggestions to reform these examination regulations and the study rules. Here, the compliance of the standard period of study, and the examination periods shall be emphasized particularly.
- (3) The audit committee shall take its decisions by a majority of votes. Abstentions are not permitted. In the Case of a tie, the vote of the Chairman shall be decisive, in his or their absence, the representative. The audit committee shall have a quorum if the majority of its members are present, including at least three members of the group of professors.
- (4) The term of office of the members of the Audit Committee shall be two years, for the student-member one year. Reelection is possible.
- (5) The chairman prepares the resolutions of the audit committee, executes the resolution and informs the audit committee regularly about his or her activities. The audit committee may in each individual case delegate revocable powers to the chairman and the representative chairman; this shall not apply to decisions on contradictions and the report to the faculty.
- (6) Members of the Audit Committee have the right to participate in the examinations as observers.
- (7) Members of the Audit Committee are bound to secrecy. Unless they are in public service, they are sworn to secrecy by the chairman.
- (8) An audit office is established at the Faculty to support the work of the Audit Committee.

## **§ 6 Examiners and Assessors**

- (1) The Audit Committee appoints the examiners and assessors. Professors, assistant professors, university lecturers, academic staff members where they provide teaching tasks, lecturers as well as in professional practice and training experienced individuals are authorized to hold university examinations. Examinations may be assessed only by persons who have at least a bachelor's degree itself.
- (2) For the assessment of written examination, two examiners should usually be ordered.
- (3) Students may propose examiners for oral examinations and the master's thesis. The proposal does not constitute a legal claim.
- (4) The examiners are independent in their audit work.
- (5) The audit committee ensures that the names of the examiners will be announced to the students in time.
- (6) § 5 paragraph 8 applies to the examiners and assessors.

## **§ 7 Recognition of study periods, study and examination**

- (1) The Audit Committee shall decide on the recognition of periods of study, CPs and audit services on the written request. The request must be sent to the Audit Committee of the appropriate degree program within four weeks after admission to the study. The students have to submit the necessary documents for recognition in original or certified form.
- (2) Periods of study, CPs and audit services in study programs at universities are counted within the scope of the Basic Law, provided that the equivalence is given. The equivalence is given if periods of study, CPs and audit services in study programs in content, in scope and in the requirements correspond to respective study program of the Otto-von-Guericke University. Here not a schematic comparison, but an overall assessment and evaluation have to be executed. The accreditation with conditions is possible.
- (3) For the purpose of counting Periods of study, CPs and audit services that were performed outside the Federal Republic of Germany, the Lisbon Convention of 11 November 1997 approved by the Standing Conference of Rectors Conference and equivalence agreements and arrangements in the context of university cooperation agreements must be observed. Periods of study, CPs and audit services achieved abroad are taken into account in so far as their equivalence is established. For the determination of equivalence of Periods of study, CPs and audit services of the courses of study programs at foreign universities the approved equivalency agreements of the Standing Conference of the Rectors' Conference and arrangements within the framework of university partnerships must be considered. Basis of valuation is the European Credit Transfer System (ECTS), so far been applied on both sides.
- (4) For the counting of audit services, the grades, if present, can only be recognized if the creditable examination corresponds to the examination of a module of the course. A claim to the acquisition of grades does not exist. In individual cases, the audit committee decides. Credited audit services are reported on the certificate. When calculating the overall grade they are not included.
- (5) The crediting is identified in the certificate.

## **§ 8 Study shares abroad**

- (1) Students may complete the modules abroad to the extent of 30 CP.
- (2) When studying abroad the student must cause a written regulation by a representative of the audit committee and a representative of the faculty of the host institution over the nature, content and scope of the crediting provided CP before the departure.

## **§ 9 Examination requirements**

- (1) Course assessment can be required for admission to a module examination.  
The examination of a module can only be provided if the required assessment of the course assessment can be proven.
- (2) Course assessments are defined in the module descriptions as such and can be graded.
- (3) Failed course assessment can be repeated as often as desired.

## **§ 10 Types of examinations for / protection; disadvantage compensation**

- (1) The following types of study accompanying examinations are possible:
  1. Written examination (K) (Section 2)
  2. Oral examination (M) (paragraph 3)
  3. Housework (H) (paragraph 4)
- (2) In an examination, students are expected to demonstrate that they can identify a problem and can find ways to a solution using the common methods of the department in a limited time and with limited resources and under the supervision. The processing time of an examination is at least 120 minutes, but not more than 240 minutes.
- (3) By oral examinations the student should prove that he or she recognizes the contexts of the examination area and is able to classify the specific questions into these contexts. The oral examination takes place in front of several examiners (colleague exam) or before an examiner and a qualified assessor as individual or group testing, while up to three students can form a group. The assessor must be counseled before the assessment of the grade. The examination duration is for each student in general about 30 minutes. The main subjects of the examination and assessment of the audit service shall be recorded in a log. It must be signed by the examiners and assessors. The result of the examination shall be announced to the student after the oral examination.
- (4) Housework requires an experimental, empirical or theoretical processing of a task from the field of study. The task is to provide in such a way that it can be completed within the lecture time of the current semester. Students may submit proposals for the topic and task. This does not establish a legal claim. In appropriate cases, the solutions can be given orally in a manner typical of the professional activity. The processing time can be extended with other examinations at the request up to one-half more if the exposure of the students is above-average. The compliance of the standard period of study must be considered.
- (5) In the event students are able to demonstrate by a medical certificate that they are unable to take an examination in whole or in part, in the prescribed form due to prolonged or permanent illness, the possibility must be granted them to pass an equivalent examination in another form by the audit committee.



- (6) Disabled students may be granted disadvantage compensation in the form of additional working appliance and tools to the extent necessary to achieve equal opportunities. For this purpose, processing times may be extended as appropriate or approved by passing the exam in a different form.

Disabled is who is unable to take the examination in the form provided, in whole or in part, because of a prolonged or permanent physical disability. The disability must be substantiated. The university may require that the substantiation is done by a medical certificate. The compensation of disadvantage must be requested in written form to the audit committee. The request should be made no later than the registration for examinations.

- (7) Suitable types of examinations can be admitted in the form of collaboration. The contribution of the individual must meet the provided requirements of the examination, and it must be possible to clearly delineated and assess the individual performance on the basis of the information of sections and page numbers or other objective criteria. The group is limited to six students.
- (8) The nature and extent of the audit services of each module are given in the module descriptions.
- (9) The forms of the written or oral examination provided in this rule can be changed under the following conditions:
- If there are less than twelve students for a written examination registered or can be expected, the audit committee may approve, at the request of the examiner, that instead oral examinations by the examiners will be accepted. This authorization is valid for one exam; the authorization will only be granted for repeated examinations if the initial examination was held in oral form.
  - If for a registered oral examination of one examiner more than twenty students applied or can be expected, the audit committee may approve, at the request of the examiners that instead the examination in the form of a written examination can take place with duration of at least 120 minutes. This authorization is valid for one exam; the authorization will only be granted for repeated examinations if the initial examination was held in written form.
  - The students concerned must be immediately (by a notice of the audit office) informed over a change in the examination form by the audit committee. Here, 30 - minute oral examinations must be replaced through a written examinations with duration of 120 minutes and longer oral examinations up to u 60 - minute through written examinations with duration of 240 minutes. Conversely written examinations with a scope of 120 minutes must be replaced through 30-minute orals examinations and written examinations with duration of maximum 240 minutes must be replaced with 60-minute oral examinations.
- (10) The protection provisions in accordance with § § 3, 4, 6 and 8 of the Maternity Protection Act and in accordance with the terms of the Federal Child Benefit Act on parental leave must be considered appropriately in the application of these regulations, particularly in the calculation of time limits and to facilitate their use. Students who are granted leave of absence due to family commitments may provide credits and examinations during their leave. At written request addressed to the Audit Committee, the repetition of a failed examination during the leave time is possible.
- (11) Tests can be conducted in English or in German. The language of the audit corresponds to the language of the module. Of this rule may be differed at the request of the student, with the consent of the examiner.

## § 11 Public of oral examinations

Students, who have not yet completed the respective examination successfully, can be admitted as a listener in oral examinations in their own course of study, if they are not enrolled to this examination. This permission does not extend to the consultation and the publication of the examination results to the examined students. At the request of the student of an examination the listeners can be excluded according to Sentence 1.

## § 12 Admission to study accompanying audit services

- (1) For the audit services may be permitted, who is enrolled at the Otto-von-Guericke University in the relevant course of study.
- (2) Students apply for admission to the examinations and repeated examination in their course of study within the time and in the form determined by the audit committee. If a student fails to meet the deadline to register, he or she is excluded from the admission for the examination, unless the audit committee decides contrary to the written request by the student.
- (3) To the request for admission proposals of auditor and the evidence of the passed preliminary examinations must be attached, if there are no corresponding records at the Otto-von-Guericke University.
- (4) The request may be revoked up to one week before the date of examination. In case of withdrawal the admission shall be applied at a later examination date in accordance with paragraphs 1 and 2.
- (5) A candidate may withdraw once from a reported but not completed examination during the master's program. Then, the request for admission to the examination applies as not provided.
- (6) The Audit Committee decides on the approval of the admission. The admission is to be refused if:
  1. The admission requirements were not met or
  2. The documents are incomplete or
  3. The examination finally "failed" or can finally classified as "failed".The refusal of admission is executed in written form.

## § 13 Assessment of the examinations and forming of the module grades

- (1) The individual audit service is assessed by the respective examiner. For written audit services, the rating should not be announced later than four weeks after the corresponding audit service. The audit committee may arrange alternative deadlines for the assessment of written audit services.
- (2) For the assessment of the audit service the following grades must be used:

| Grade |              |  |
|-------|--------------|--|
| 1     | very good    | excellent performance  |
| 2     | good         | an performance that is significantly above the average requirements                      |
| 3     | satisfactory | a performance that corresponds to the average requirements                               |
| 4     | sufficiently | a performance that is sufficient despite its shortcomings still satisfy the requirements |

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|   |              |  |
|---|--------------|--|
| 5 | insufficient | a performance that does not meet the requirements for serious failings |
|---|--------------|--|

In order to differentiate the individual audit services the individual grades can be raised or lowered by 0.3 to intermediate values; the grades 0.7, 4.3, 4.7 and 5.3 are excluded.

- (3) An audit service is passed if the audit service is assessed at least "sufficient". If the audit service is assessed by several examiners, the audit service is passed if all assessments are at least "sufficient". In this case, the grade of the audit service is the arithmetic mean of the individual grades of the examiners truncated to one decimal place after the decimal point; different from the definition in paragraph 2

- (4) A module examination is passed if all required audit services have been assessed at least with "sufficient".

If a module examination consists of only one audit service, the module mark corresponds to the grade of the audit service. If a module examination consists of several audit services, the module mark is the possibly weighted arithmetic mean of the grades of the audit services in the module to one decimal place after the decimal point; different from the definition in paragraph 2.

The weights for the individual modules are determined from the ratio of credit point units of the corresponding module.

- (5) In the formation of a grade on the average only the first decimal place is considered; all further decimal places are dropped without rounding.

The predicate is:

| At an average rating      | Predicate    |
|---------------------------|--------------|
| up to 1.5                 | Very good    |
| Between 1.6 and 2.5       | good         |
| from 2.6 to 3.5 inclusive | satisfactory |
| 3.6 to 4.0                | sufficiently |
| from 4.1                  | insufficient |

- (6) The grade should be supplemented with an ECTS grade.

## § 14 Repetition of Examinations

- (1) Audit services, which have not been passed or considered failed, must be repeated. The repetition must take place at the earliest possible date, but not earlier than six weeks and within 8 months. The audit committee shall determine the date and publish the date by a notice. For the assessment § 13 applies accordingly.

- (2) Audit services can be repeated twice. A second repetition of an audit service is allowed for a maximum of three audit services throughout the study. In principle, the second reexamination is orally. If the first - or reexamination were written, the length of the oral examination is governed by the conversion formula in § 10 (9c). For the time-limits paragraph 1 shall be applied. In a second reexamination the student is required to ensure the compliance with the deadline.

- (3) A passed second reexamination is assessed "sufficient".

- (4) Unsuccessful attempts made to take an examination in the same or comparable course of study at another university within the scope of the Basic Law shall be credited to the repeat options.

- (5) The repetition of a passed examination is not allowed.

## **§ 15 Additional examinations**

- (1) Students may take examinations in modules that are not assigned to the prescribed areas of their regular study plan.
- (2) The results of the additional examinations will be recorded in the certificate or confirmations at the request of the students. In the calculation of average grade and the determination of the final grade, the results of additional examinations are not included.

## **II. Master's degree**

### **§ 16 Registration for the master's thesis and the assignment of the topic**

- (1) For the master's thesis is accepted only who is enrolled at the Otto-von-Guericke University in the relevant course of study.
- (2) The admission presupposes the existence of all necessary module examinations. Exceptions may be approved by a written request from the Audit Committee.
- (3) The master's thesis should show that the students are able to solve a task independently and scientifically from the field within a specified period of time. The topic and task of the master's thesis must correspond to the examination purpose and processing time. The task must be determined with the issuance of the topic.
- (4) Students apply for admission to the master's thesis at the audit committee in written form. The application for the master's thesis must include:
  - Proposal for the subject area to which the topic of the master's thesis can be assigned,
  - Where appropriate, a request for assignment of the subject work as a collaboration
  - And, possibly auditors proposals.
- (5) A cancellation of the registration for the master's thesis is possible before the start of processing time. In case of withdrawal the admission must be reapplied to a later date.
- (6) The topic of the master's thesis will usually be assigned at the beginning of the fourth semester. The assignment has to be done in time that the master's examination can be completed within the standard period of study.
- (7) The master's thesis is written in German or English.
- (8) The students should be given the opportunity to submit proposals for the topic and tasks of the master's thesis. The proposal by the student should be met wherever possible. This does not establish a legal claim.
- (9) The topic is determined by the first examiner, after hearing the students to be tested. At the request the Audit Committee ensures that students receive a topic timely. The topic has to be recorded. With the assignment of the topic the first examiner who has determined the topic will be determined. The second examiner will be determined at the submission of the thesis. During the preparation of the thesis, the students are supervised by the first examiner.
- (10) For an external thesis, the student will be co-supervised by a competent person on site. The agreement of the supervisor for the supervision has to be recorded.
- (11) The topic of the master's thesis can be assigned of any professor or lecturer of the Faculty. With the approval of the audit committee, this also applies for professors and lecturers, who are not members of this faculty. It can also be defined by other persons authorized for examination according to § 6 paragraphs 1, in this case, the second examiner must be a professor or a lecturer of the Faculty.

- (12) Task-specific criteria for the assessment will be published prior to the start of the work. All partial performances will be included in the forming of the grade.

## **§ 17 Processing and submission of the master's thesis**

- (1) The master's thesis can be made in the form of collaboration. The individual gradable contribution of the audit service must be based on stated chapters and page numbers or other objective criteria clearly identifiable, assessable and must meet the requirements under paragraph 1. The group is limited to three students.
- (2) The time from assigning of the topic to the submission of the master's thesis is 20 weeks. In exceptional cases, the audit committee may extend the processing time to a reasoned request of the student to a maximum of 2 months. An extension of the processing time must be complied with the standard period of study. The topic can only be returned once within the first third of the processing time according to sentence 1.
- (3) At the submission of the master's thesis, students have to certify in written form that they have written their work independently - the appropriately marked part of the work at collaborations – and used no other sources and tools except the stated.
- (4) The master's thesis must be submitted duplicated in printed form to the examinations office in time; the submission date must be recorded. In addition, a digital version of the thesis must be submitted in an appropriate form (usually in PDF format) to first examiner.

## **§ 18 Colloquium and Assessment**

- (1) The master's thesis will be assessed and evaluated by the examiners within four weeks of submission. § 13 paragraphs 3 and 5 shall apply accordingly.
- (2) In the colloquium of the master's thesis students must prove that they are able to present the results of the independent scientific processing of a field and to defend in a technical discussion.
- (3) If only one examiner assess the thesis with "unsatisfactory (5.0)", then a third assessment will be ordered. The master's thesis is failed, if two assessments of the thesis are "unsatisfactory (5.0)". If only one of the three assessments is "insufficient (5.0)", then the master's thesis is evaluated with a grade of 4.0.
- (4) Conditions for admission to the colloquium of the master's thesis are passing the module examinations of the master's examination and that the master's thesis of the two examiners is rated with at least "sufficient".
- (5) The colloquium for the master's thesis is carried out as a group or individual examination by the examiners of the thesis. The audit committee may appoint additional examiners. The colloquium usually lasts for each student 60 minutes, but not more than 75 minutes. For the assessment of the colloquium § 13 shall be applied accordingly.
- (6) The colloquium is passed when it was assessed at least "sufficient" by the examiners. With a rating of "insufficient" the repetition is directed by the determinations of § 19
- (7) The module grade is calculated as the arithmetic mean of the two grades of the assessments and the grade for the colloquium.
- (8) In addition, § 11 applies accordingly.
- (9) 30 credits will be awarded for the successful master's thesis with colloquium.

## **§ 19 Repetition of the thesis and the colloquium for the master's thesis**

- (1) The master's thesis can be repeated once, if it was assessed "insufficient" or the assessment "insufficient" can be applied.
- (2) A return of the topic in a repeat of the master's thesis is permissible only if the possibility has not already been used at the first thesis.
- (3) The new topic of the master's thesis will be assigned within a reasonable time, usually within three months.
- (4) A second repetition of the master's thesis is not allowed.
- (5) The repetition of a passed master's thesis is excluded.
- (6) The colloquium for the master's thesis can be repeated once, if it was assessed "insufficient" or the grad "insufficient" can be applied.
- (7) A second repetition of the colloquium for the master's thesis is not allowed.
- (8) The repetition of a passed colloquium for the master's thesis is excluded.

## **§ 20 Overall result of the master's examination**

- (1) The master's examination is passed if all audit services requirements of the compulsory and elective modules and the thesis with the colloquium were assessed at least "sufficient" and 300 CP can be proven, including previous relevant courses of study.
- (2) The overall grade of the master's examination is calculated from the weighted average of the grades for the module examinations and the module grade for the master's thesis with colloquium, the determination of § 13 paragraph 2 and § 13 paragraph 5 shall apply accordingly. The weights are derived from the CP of the corresponding modules according to module descriptions.
- (3) If the average of the overall grade is better than 1.3, the predicate "passed with distinction" is granted.
- (4) The master's examination is finally failed, if an audit service or the thesis with colloquium was assessed "insufficient" or "insufficient" can be applied and a retry option no longer exists.

## **§ 21 Certificates and confirmations**

- (1) A certificate has to be created immediately, if possible within four weeks when the master's examination is passed. The certificate bears the date of the day on which the last audit service was performed. It must be signed by the chairman of the audit committee and the dean of the faculty and has to bear the seal of the Otto-von-Guericke University.
- (2) Along with the certificate the students receive a diplomat supplement.
- (3) If the master's examination is not passed or applies to have failed, the audit committee informs the student by a written notice, which also provides information on whether and if so to what extent audit services can be repeated. Legal information must be attached to the notice of a finally failed master's examination.
- (4) If students leave the university or change their course of study, a confirmation will be created on request, which contains the audit services passed and their assessments. In the case of paragraph 3, the confirmation shall also be issued without a request. It states also the missing audit services and further, that the master's examination is not passed or finally failed. At request students receive a confirmation in the case of paragraph 3, which only identifies the examinations passed.

## **§ 22 Charter**

- (1) Along with the certificate the students receive a charter with the date of the certificate. In the charter the awarding of the master's degree will be certified.
- (2) The charter is signed by the dean of the faculty of computer science at the Otto-von-Guericke University, and stamped with the seal of the Otto-von-Guericke University.

## **III. Final provisions**

### **§ 23 Access to examination records**

- (1) Upon written request to the audit committee, students will be allowed inspections of the written audit work, the related opinions of examiners and the audit logs at the end of each module exam and the colloquium, in each case within a period of one month after the announcement of the result.
- (2) After issuance of the certificate, the written request must be made within a period of three months to the audit committee. The chairman of the audit committee shall determine the place and time of the inspection.
- (3) Upon written request, students are informed on partial results, prior to the conclusion of a module examination.

### **§ 24 Absence, withdrawal, deceit, breach of regulations**

- (1) An examination is assessed "insufficient" when the student without cause:
  - does not appear to a binding examination date,
  - withdraws from an examination after the beginning of the examination,
  - does not comply the deadline for written examination,
  - does not repeat an examination within the specified period.
- (2) The reasons for the withdrawal or failure must immediately be reported to the audit committee in written form and made credibly. If this does not happen, the examination result has to be assessed "insufficient". In case of illness a medical certificate must be submitted. In recognition of the reasons the audit service has to be performed on the next regular examination date, unless the audit committee decides a deviating regulation.
- (3) If the student attempts to influence the outcome of an audit service by cheating or using unauthorized tools, the audit service will be assessed "insufficient". Who disrupts the orderly conduct of an examination, may be excluded by the examiner or the invigilator of the continuation of the audit service. In this case, the audit service has to be assessed "insufficient". In severe cases, the audit committee may exclude the student from further audit services.

### **§ 25 Invalidation of audit services**

- (1) If a student cheated in an audit service and this fact is known only after the issuance of the certificate, the audit committee may declare the examination wholly or partially failed.
- (2) If the requirements or admission to an audit service were not met, without a deception was intended and the fact only after the issuance of the certificate known, the defect will be fixed by passing the examination. If students have unjustly gained admission intentionally, the audit committee will decide in accordance with the legal provisions on the withdrawal of unlawful administrative acts.

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- (3) The concerned student shall be given an opportunity to discuss the matter before the audit committee before making a decision.
- (4) The incorrect certificate has to be withdrawn and replaced by a correct certificate or a confirmation under § 20. A decision under paragraph 1 and 2 is impossible after a period of five years from the date of the certificate.

### **§ 26 Decisions, contradiction method**

- (1) All decisions made according to these examination regulations and constitute an administrative act must be justified in written form, attached with legal information and published in accordance with the Administrative Procedure Act § 41 LSA. Against the decisions an objection can be entered within one month after receipt of the notice to the audit committee.
- (2) The audit committee decides on the objection. As far as the objection is directed against an assessment, the audit committee will forward the objection to the examiner or the examiners concerned for review. If the assessment is changed according to the objection, the audit committee assists from the objection. Otherwise the Audit Committee verifies the decision only on whether
  1. the examination procedure has been carried out properly,
  2. the examiner has assumed inaccurate facts,
  3. generally accepted measurement principles have been respected,
  4. the examiner was guided by irrelevant considerations.

### **§ 27 University public announcements of the audit committee**

Decisions and other measures adopted by these examination regulations, in particular the admission to the examination, refusal of admission, registration and examination dates and deadlines as well as the examination results will be published at the university in local customary manner. Thereby data protection regulations have to be applied.

### **§ 28 Transitional provisions**

- (1) These examination regulations are valid for all students who are enrolled in the summer semester of 2011 in the programs listed in § 1.
- (2) Students who are enrolled according to § 1 in the courses already before 1.4.2011 may accede to the order on request.
- (3) The request must be submitted in written form to the examination office of the FIN within three months after the entry into force of these examination regulations. The request is irrevocable.
- (4) The required recognition arrangements will be announced by notice at the examination office and on the website of the examination office.



## **§ 29 Entry into force**

These regulations enter into force upon approval by the President on the day after their public notice at the university in the administration guide, Otto-von-Guericke University.

Issued on the basis of the resolutions of the faculty council of the faculty of computer science from 11.01.2012 and the senate of the Otto-von-Guericke University from 25.01.2012.

Magdeburg, 02.02.2012

Prof. Dr. KE Pollmann  
Rector  
of the Otto-von-Guericke University Magdeburg

Attachments: Regular study plan

## Appendix A: Regular study plan DKE

The study "Master DKE" consists of a series of topics that are contained in the standard study plan below. In each area, the number of CPs in each case (or Minimum and maximum number) is specified, which must be obtained:

- 1) To the area "fundamentals" must be assigned to a total of 30 CP, a selection of modules.
  - 2) To the area "Models" must be at least 12 and a maximum of 24 CP modules to be gained from knowledge representation, modeling and editing.
  - 3) To the region "Methods I" must be obtained from at 12 CP to a maximum of 24 CP from modules of learning methods.
  - 4) To area "Methods II" must be obtained least 12 CP and a maximum of 24 CP from modules of methods of information processing and seeking.
  - 5) To the area "Applications" must be obtained at least 12 CP and a maximum of 24 CP from modules to applications of DKE.
  - 6) In one of the topics "models", "Methods I", "Methods II", "Applications" also a team project (6 CP) must be processed. The team project can be subject-across.
- The modules assigned to each of the topics "models", "Methods I", "Methods II" and "Applications" will be published in a suitable place before each semester.

This regular study plan is a recommendation, which takes into account the general requirements of the topics "models", "Methods I", "Methods II" and "Applications" to basics. Students can deviate from this recommendation by take modules from the field "basics", "models", "Methods I", "Methods II" and "Applications" in different order.

### Legend for regular study schedule:

CP = Credit Points

| No  |                                  | 1st semester<br>(CP) | 2nd semester<br>(CP) | 3rd semester<br>(CP) | 4th semester<br>(CP) | *   |
|-----|----------------------------------|----------------------|----------------------|----------------------|----------------------|-----|
| 1.  | <b>Topic "Basics" (30 CP)</b>    | 30                   |                      |                      |                      | 30  |
| 1.1 | Data Mining                      | 5                    |                      |                      |                      |     |
| 1.2 | Machine Learning                 | 5                    |                      |                      |                      |     |
| 1.3 | Intelligent Data Analysis        | 5                    |                      |                      |                      |     |
| 1.4 | Information Retrieval            | 5                    |                      |                      |                      |     |
| 1.5 | Databases II                     | 5                    |                      |                      |                      |     |
| 1.6 | Visualization                    | 5                    |                      |                      |                      |     |
| 1.7 | Complexity Theory                | 5                    |                      |                      |                      |     |
|     |                                  |                      |                      |                      |                      |     |
|     | <b>Advanced subjects (60 CP)</b> |                      | 30                   | 30                   |                      | 60  |
| 2.  | Models (12-24 CP)                |                      |                      |                      |                      |     |
| 3.  | Methods I (CP 12-24)             |                      |                      |                      |                      |     |
| 4.  | Methods II (12-24 CP)            |                      |                      |                      |                      |     |
| 5.  | Applications (12-24 CP)          |                      |                      |                      |                      |     |
|     |                                  |                      |                      |                      |                      |     |
| 6.  | Master's thesis (30 CP)          |                      |                      |                      | 30                   | 30  |
|     |                                  |                      |                      |                      |                      |     |
|     | CP                               | 30                   | 30                   | 30                   | 30                   | 120 |

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## Appendix B: Regular study plan DigiEng

The study "Master Digital Engineering" consists of a series of topics that are contained in the standard study plan below. For each region the minimum number of CPs is specified, which must be obtained:

1. To the area "Fundamentals of computer science" a selection of modules to at least 15 CP (if not a bachelor's degree in computer science exists) or at least 5 CP (if a bachelor of computer science is present) has to be obtained.
2. To the area "Engineering Fundamentals" a selection of modules to at least 5 CP (if not a bachelor's degree in computer science exists) or at least 15 CP (if a bachelor of computer science is present) has to be obtained.
3. To the area "Methods of Digital Engineering" a selection of modules to at least 10 CP has to be obtained.
4. To the area "methods of computer science" a selection of modules to at least 10 CP must be obtained.
5. To the area "Subject specialization" a selection of modules to at least 15 CP must be obtained.
6. To the area "Human factors" a selection of modules to at least 5 CP has to be obtained.

In addition, an interdisciplinary team project (6 CP) and a digital engineering project (12 CP) must be performed. The remaining CP can be combined freely from modules of the program. The attached regular study plan is a recommendation for disposition of the areas. It is up to the students to deviate from this recommendation by take modules in a different order.

### Legend for regular study schedule:

CP = Credit Points

| No | Topics                         | 1st semester<br>(CP) | 2nd semester<br>(CP) | 3rd semester<br>(CP) | 4th semester<br>(CP) |    |
|----|--------------------------------|----------------------|----------------------|----------------------|----------------------|----|
| 1  | Basic computer science         | 18 or 6              |                      |                      |                      |    |
| 2  | Engineering Fundamentals       | 18 or 6              |                      |                      |                      |    |
| 3  | Human factors                  | 6                    |                      |                      |                      |    |
| 4  | Methods of Digital Engineering |                      |                      |                      |                      | 12 |
| 5  | Methods of computer science    |                      |                      |                      |                      | 12 |
| 6  | Interdisciplinary team project |                      |                      |                      |                      | 6  |
| 7  | Specialization                 |                      |                      |                      |                      | 18 |
| 8  | Digital engineering project    |                      |                      |                      |                      | 12 |
| 9  | Master Thesis                  |                      |                      |                      |                      | 30 |
|    | CP                             | 30                   | 30                   | 30                   | 120                  |    |

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