

# Examination Regulations for the Consecutive Master's Course of Studies in Computer Science at the University of Kaiserslautern

from February 12, 2007

- combined with the change of the regulations from February 10, 2009 -

On the basis of § 7(2) no.2 and § 86 (2) no.3 of the Higher Education Act from July 21, 2003 (GVBl. p.167), BS 223-41, the department council of the Computer Science Department has agreed on the following Examination Regulations for the Consecutive Master's Course of Studies in Computer Science on October 25, 2006.. The Ministry of Science, Continuing Education, Research and Culture authorized these examination regulations in writing dated February 12, 2007, Az.: 15226 Tgb.Nr. 05/06. The ministry agreed to § 4 (3) and the attachment. The regulations are hereby published.

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## Preface to Use of Language:

As per Art. 3 Section 1 of the Constitution, men and women are equal. All masculine and feminine personal and function terms in this statute shall apply to men and women alike.

## §1 Coverage, Responsibilities

(1) The examination regulations regulate the subject-specific examination requirements and the examination procedure for the Master's Course of Studies at the University of Kaiserslautern. Non-subject-specific examination regulations have been stipulated by the General Examination Regulations for the Master's Degree at the University of Kaiserslautern (AMPO) from December 22, 2005, in particular including regulations regarding the following aspects:

- Credit point system, course achievements (§ 5 AMPO),
- Examination board and examination office (§ 6 AMPO),
- Examiner and assessors (§ 7 AMPO),
- Recognition of periods of study, course achievements and examination results (§ 8 AMPO),
- Oral and written examinations (§ 9 and § 10 AMPO),
- Pass and fail of the Master's examination, certifications (§ 20 AMPO),
- Certificate, Diploma Supplement, Master's Diploma (§§ 21 and § 22 AMPO),

- Invalidity of Master's examination (§ 24 AMPO),
- Candidate's right to obtain information (§ 25 AMPO).

(2) Regarding decisions in examination matters of the Master's Course of Studies in Computer Science, the Master's examination board of the Department of Computer Science is in charge.

## **§2 Objectives of the Course of Studies**

(1) In the frame of the Master's Course of Studies, the knowledge and skills acquired in the Bachelor's will be deepened and supplemented. The students will be prepared for independent research and demanding development tasks in computer science and enabled to apply scientific methodology and knowledge for the solution of complex problems of computer science.

(2) The Master's Examination shall prove whether the students have acquired additional scientifically founded knowledge in computer science and whether they are capable of conducting fundamental and applications-oriented research.

## **§3 Internationality**

(1) The teaching and examination languages of the course of studies are German and English.

(2) If required, the department guarantees for foreign students a sufficient offer in English-speaking lectures providing the option to complete the studies almost exclusively in the English language.

## **§4 Admission to the Master's Course of Studies**

(1) Applicants who fulfil the access prerequisites and are qualified will be admitted to the Master's Course of Studies. Admission can be granted under conditions (see Section (4)).

(2) Access prerequisites are as follows:

- the general access prerequisites as per enrollment regulations of the University of Kaiserslautern as well as
- a completed college graduation in computer science at least equivalent to the Bachelor's studies in computer science at the University of Kaiserslautern in scope, contents, and orientation. The determination of equivalence is done by the examination board.

(3) The qualification-determination procedure is stipulated in the attachment to these regulations.

(4) On the basis of the results of the equivalence check or the qualification-determination procedure the examination board can restrict the study options of applicants by making the admission dependent on conditions regarding the arrangement of the examination schedule (cf. § 7) .

## **§5 Structuring of Studies and Master's Examination**

(1) The Master's studies is divided in blocks. One block comprises several study modules. One module consists normally of one or several courses in the scope of a total of 2 to 14 credit hours (CH) as per provision of the study regulation. Courses are in particular lectures (with or without exercises) and seminars. One module can also include counseled independent studying, such as a project, e.g.

(2) The modules have a weight given in ECTS-credit points corresponding to the expenditure in time for the students. One credit, abbreviated LP, corresponds to about 30 working hours.

(3) The Master's examination consists of the following:

1. Course achievements and examination results to modules in the scope of 90 LP;
2. the Master's thesis (30 LP).

## **§ 6 Duration, Scope and Structure of the Course of Studies**

(1) The regular study time until completion of the Master's examination amounts to four semesters.

(2) The Master's studies comprise compulsory study modules in the scope of ca. 65 credit hours and the Master's thesis. A total of 120 LP are to be achieved. The studies are divided into the following four blocks:

1. Theory: Deepening modules of theoretical computer science (scope: 8 LP)
2. Deepening : Deepening modules of computer science (scope: 24-38 LP)  
Seminar module (scope: 4 LP)  
Project module (scope: 8 LP)  
Minor subject modules (scope: 12-26 LP)
3. Supplement: Compulsory-optional modules (scope: 20 LP)
4. Project work:: Master's thesis (scope: 30 LP)

(3) The study regulation determines what modules will be offered for the Master's studies, which of them are deepening modules and which modules can be credited as minor subject and compulsory optional modules. Deepening modules consist of lectures with deepening character. In particular, they shall not include any lectures of the compulsory and core modules of the Bachelor's studies (cf. subject-specific examination regulations for the Bachelor's studies in computer science).

(4) The study regulation regulates what deepening modules can be attended in the block "Theory".

(5) The study regulation describes deepening blocks with different profiles and determines for each deepening block its compulsory and compulsory-optional modules. Each deepening block must include at least one deepening module for methodological and/or theoretical fundamentals of the deepening (Scope: at least 4LP).

(6) In the supplement block, students must take deepening modules of computer science that are outside the chosen deepening subject. If the mentor approves, also other modules can be credited into the supplement block.

### **§ 7 Examination Schedule, Mentoring System**

(1) Students must submit an examination schedule to the examination office by the end of the first semester at the latest showing what deepening block has been chosen and what course achievements and examination results will be achieved for passing the Master's examination. The arrangement of the examination schedule has to take the conditions according to §4 (4) into account. The examination schedule can be continued in the later semesters.

(2) Alterations to the examination schedule can only refer to those modules for which no examination has yet been done.

(3) The examination office checks whether the examination schedules are in compliance with §6 and the study regulation. The examination schedules may not include any modules with lectures which have already been credited for the former studies of computer science according to §4. The examination board will decide what additional achievements from the former studies can be credited.

(4) Each student will be assigned a professor as mentor by the examination board who participates in the preparation and continuation of the examination schedule. The mentor is allowed to get the course achievements and examination results of the students assigned to him from the examination office. He has to advise the students and to control particularly the study progress. The examination board will decide in case of differences in opinion and in case of a change of the mentor.

(5) The mentor shall be in charge of the approval of examination schedules that do not or only slightly deviate from the deepening blocks described in the study regulation. In case of larger deviations, the approval of the examination board shall be applied for. Deviations are minor if they refer to deepening or minor subject modules with a max. scope of 12 LP.

### **§ 8 Course Achievements, Examination Results, Module Exams**

(1) Course achievements are rendered in the frame of exercises, practical training, projects, seminars, and similar events. In case of exercises, the achievements are normally checked by assignments and/or semester tests. In case of practical training and projects, the achievement consists of the developed result and the presentation, in case of seminars it consists of at least one presentation and the report. In case of exercises, seminars, and practical training, the examiner in charge can also demand the regular participation. The exact form of achievement check shall be announced at the beginning of the lecture. Course achievements will be certified by the examiner in charge and can be graded.

(2) Examination results are the Master's thesis incl. colloquium and module exams in form of written examinations or oral tests. Object of module exams is the contents of the courses belonging to the modules. The duration of a module exam is dependent on the scope of the module stipulated in the study regulation. Exams have a duration of 10-20 minutes per credit, at least one hour and 4 hours at the most. Oral tests have a duration of 3-7 minutes

per credit, at least 15 minutes and 60 minutes at the most. Examination results will be graded.

(3) Written exams will be held in the language of the associated course. In case of oral tests, the students can determine whether they want to be tested in German or English.

(4) The form of a module exam and the requirement of course achievements as a prerequisite for the exam shall be notified at the latest at the beginning of the first lecture of the module. At least one of the exams for the deepening modules shall be done orally.

(5) In case of modules not comprising any lectures, credits are given after rendering the associated, examination-relevant course achievements (§ 9 (7) AMPO). The module grade is the grade of the examination-relevant course achievements.

(6) In case of modules comprising lectures, credits are given after rendering the associated course achievements and after passing the module exam. Normally, the course achievements are preliminary achievements for the exam. Only the examination results will be relevant for the formation of the module grade.

(7) Grading of course achievements and examination results is regulated in §16 AMPO.

### **§ 9 Examination Procedure**

(1) Students must enroll for every module exam at the examination office. This also applies to repeated exams. The enrollment for a module exam relevant for passing the Master's examination can only be done if the module is part of the examination schedule.

(2) The examination board stipulates the dates for enrollment and performance of written exams in coordination with the examiner in charge and announces them four weeks before the exam at the latest on the web-pages of the examination office.

(3) The examination board stipulates the dates for oral module exams in coordination with the examiner and the candidate. Enrollment must be done two weeks before the examination date at the latest.

(4) Candidates can withdraw from a module exam without giving any reasons if they announce their withdrawal to the examination office either personally or in writing until one week before the date at the latest. Without a withdrawal in due time, the exam will be regarded as failed. Further regulations regarding negligence, deception, and violations of rules are stipulated in §19 AMPO.

(5) Enrollment dates and regulations regarding course achievements of exercises, seminars, projects, and practical training will be stipulated by the examiner in charge.

(6) The procedures for examination of modules outside of the Department of Computer Science will be handled by the examination regulations of the departments in charge. The achieved examination-relevant course achievements and examination results shall be handed-over to the examination office of the Department of Computer Science in an unsolicited and immediate way.

## **§ 10 Repetitions of Exams**

- (1) Module exams may be repeated once if the first attempt failed.
- (2) The time between a module exam and its repetition must be at least one month. In case of oral exams, the repetition must be done within six months. In case of written exams, it must be completed by the next examination date. For each module tested in writing, there are at least two exam dates in the year after the corresponding courses have been finished.
- (3) Other than that, § 17 (1), (2) and (4) AMPO shall be applicable.
- (4) Sections 1 to 3 are also applicable for examination-relevant course achievements.

## **§ 11 Registration Periods, Failure of Master's Examination**

- (1) The enrollment for the exam of the specialization module of the block "Theory" (§6 (2) part 1) has to take place in the third semester at the latest. The enrollment for all other exams and the issue of the Master's thesis (§6 (2) parts 2,3,4) have to take place in the fifth semester at the latest. Exams for which these deadlines are missed, are considered to be failed for the first time (§19 (2) AMPO). If the deadline of the issue of the Master's thesis is missed, the Master's thesis is considered to be failed and §11 (9) AMPO is applied.
- (2) Students who are not allowed to repeat an exam, lose their claim on examination and get removed from the university's register.
- (3) When determining the studies decisive for keeping the deadlines, § 4 (4) AMPO will be considered.

## **§ 12 Master's Thesis**

- (1) The Master's thesis is a written examination. It shall prove the candidate's ability to handle a problem from the field of computer science in a limited time with scientific methodology under supervision and to present the results in a written way.
- (2) The topic of the Master's thesis will be given by an examiner of the Department of Computer Science. Hand-over will be done via the examination office and will there be marked with the date of hand-over.
- (3) The topic shall be laid out for a handling time of six months at the most. The thesis shall be handed over to the examination office after six months at the latest in triplicate. In individual cases, upon well-founded request, the chairperson of the examination board can exceptionally prolong the time by up to three months.
- (4) For checking the independence of the achievements, a colloquium will be conducted. In case of considerable doubts in the independent preparation of the Master's thesis, the examination board decides after hearing the candidate and the examiner whether or not the thesis will be accepted and assessed or whether a case according to § 19 (5) sentence 1 AMPO is existing.
- (5) The Master's thesis will be assessed by the topic provider and an other examiner.

(6) Prerequisite for the topic hand-over is a credit score of at least 60 credits of the Master's examination.

(7) Other regulations, particularly on return, prolongation, assessment and repetition are included in § 11 AMPO.

### **§ 13 Admission to Master's Examination**

(1) The request for accreditation for the Master's examination shall be submitted together with the enrollment to the Master's course of studies, at the latest with the submittal of the examination schedule in writing to the chairperson of the examination board. Declarations as per § 14 (2) AMPO shall be enclosed to the request. Moreover, a list of lectures shall be added to the request which had been tested as per §4 of the computer science studies that preceded this course of studies.

(2) The examination board decides on the accreditation as per § 13 (2) AMPO.

### **§ 14 College Degree, Final Certificate**

(1) On the basis of the passed Master's examination, the academic degree "Master of Science", abbreviated "M.Sc." will be awarded. Upon student's request the German notation can be attached to the academic degree.

(2) The certificate includes the following:

1. the titles of all completed modules, if possible, with grade;
2. title of the chosen deepening subject;
3. topic and grade of the Master's thesis;
4. total assessment;
5. further information as per §21 (1) AMPO.

(3) The total assessment is the arithmetic mean of the individual module grades and the grade of the Master's thesis weighted according to the corresponding credits.

### **§ 15 Effective Date**

The examination regulations come into effect one day after their publication in the "Staatsanzeiger" for Rheinland-Pfalz.

**Attachment to § 4 (3)**  
**Qualification-Determination Procedure**

(1) The procedure described here is meant to determine the technical and personal qualification of applicants for the admission to the consecutive Master's Course of Studies in Computer Science.

(2) The prerequisite for the participation in the qualification-determination procedure is - as stipulated in §4 (2) of these examination regulations - the determination of the equivalence of the completed college studies of the applicants to the Bachelor's Course of Studies in Computer Science at the University of Kaiserslautern. Equivalence can generally be considered as granted for all accredited Bachelor's Course of Studies of Computer Science at German universities. In all other cases, equivalence will be determined by the examination board of the department on the basis of the studies' scope, contents, and orientation. If the prerequisite is not fulfilled, no decision is made about the qualification and the applicant is not admitted.

(3) Determination of qualification and - as the case may be - verification of the studies' equivalence will be conducted on the basis of the following documents to be added to the application in German or English:

1. Leaving certificate of the study courses and - if required - further documents showing final grade, duration of studies, and other performances, e.g. in form of an academic transcript, transcript of records, or equivalent proofs of achievements.
2. Description of contents of the courses listed in No. 1.
3. Statement with reasons for the intended taking-up of the studies and explanations of study aims.
4. Presentation of professional and personal development (curriculum vitae), if applicable, with descriptions of practical knowledge and experience.
5. Recommendation letters of at least 2 university/college lecturers. The recommendation letters should include statement on how well the applicant completed his/her studies in relation to other candidates of the course of studies.
6. For foreign applicants, the proof of sufficient knowledge of the German and English language if the already completed studies had not been performed in one of these languages. Sufficient knowledge in the English language can be documented by test results for TOEFL (min. 213 scores in the computer-based test or min. 550 scores in the paper-based test) or similar test results (e.g. IELTS). Proof of basic knowledge in the German language shall be given as described in the enrollment regulations of the University of Kaiserslautern.

As an option, additional proof or test results, such as GRE general or GRE subject test, can be added to the application if they may contribute to the determination of qualification.



(4) If a Bachelor's has been completed at the University of Kaiserslautern, only the documents described in Section 3, No. 1 will be required. If an accredited Bachelor's in computer science has been completed at another German university, only the documents described in Section 3, No. 1-5 will be required.

(5) The determination of qualification is performed on the basis of the documents listed in Section 3 by the examination board, and results in an assessment "qualified" or "non-qualified" for each of the applications. If the qualification of the applicant cannot be determined on the basis of the application documents, the examination board can demand additional results from a GRE general test or the GRE subject test in Computer Science as an additional qualifications proof or request the applicant to come to an application presentation of about a quarter of an hour.

(6) The qualification determination is based on the following assessment criteria:

1. Active mastering of the German or English language
2. Above average performance in the completed college graduation in computer science
3. Practical knowledge and experience suitable for the Master's studies
4. Sufficient motivation for the studies
5. Capability for concentrated and efficient studying

(7) The qualification-determination procedure can only be repeated if the applicant has acquired at least 60 LP in the area of Computer Science in addition to those of the last application or other additional practical knowledge and experience of at least one year.

(8) If the prerequisites of Section 2 are not fulfilled or if the applicant is considered as "non-qualified" for the studies, he gets an official notification with instructions about the available legal remedies.

(9) On the conducted qualification-determination procedures, minutes will be taken. For viewing the files, §25 (2) AMPO will be applicable.