The following translation of the Examination Regulation for the Master’s Distance Study Programme “Software Engineering for Embedded Systems” is provided here only to give students a better understanding of the contents of the original German document. Only the German version is legally binding.

Examination Regulations

for the
Continuing Education Distance Study Degree Programme
“Software Engineering for Embedded Systems”
of the Technische Universität Kaiserslautern
dated 08 January 2010

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Correction dated 22 September 2015 (Gazette dated 30 September 2015, no. 5, p. 3)
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Regulations dated 29 July 2019 (Gazette dated 11 September 2019, no. 5, p. 73)

Pursuant to Section 7 (2) no. 2 and Section 86 (2), sentence 1, no. 3 of the Higher Education Act dated 21 July 2003 (GVBl. p. 167), BS 223-41, the Department Council of the Department of Computer Science at the University of Kaiserslautern has enacted the following regulations for the continuing education distance study Master’s degree programme “Software Engineering for Embedded Systems” on 28 October 2009. These regulations were approved by the Ministry of Science, Continuing Education, Research and Culture in a letter dated 01 December 2009, file no.: 9526 topic no. 89/07. They are hereby published.

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Section 1 Applicability

These Examination Regulations regulate the examination procedure and the organs of the English-language continuing education distance study Master’s degree programme “Software Engineering for Embedded Systems” offered by the Department of Computer Science of the Technische Universität Kaiserslautern. In the following, the title of the programme will be abbreviated as MF SWES.

Section 2 Objectives and Admission Requirements for the Programme

(1) This degree programme is considered a continuing education programme in the area of software engineering for embedded systems. Building on the prior knowledge of the graduates in the area of software engineering, state-of-the-art design methodology for software engineering for embedded systems is taught.

(2) The MF SWES of the Technische Universität Kaiserslautern is aimed at university graduates from the fields of computer science or related subjects (e.g., industrial mathematics), mathematics, as well as natural and engineering sciences who are able to provide evidence of a minimum of 2 years of professional experience in the area of embedded systems (including at least one year of relevant experience, i.e., in software engineering) subsequent to their first degree.

(3) Admission is also granted to applicants who do not have an undergraduate university degree. However, they need to have a higher education entrance qualification in accordance with Section 65 (1) or (2) of the Higher Education Act (HochSchG), must have at least three years of relevant work experience following the award of the higher education entrance qualification, and must have passed an aptitude test in accordance with Section 2a of these examination regulations.

(4) A higher education entrance qualification in accordance with Section 65 (1) of the Higher Education Act (HochSchG) means that the applicant has successfully graduated from secondary school with a secondary school leaving certificate qualifying the applicant for admission to an institute of higher education.

A subject-specific (with regard to vocational training) higher education entrance qualification in accordance with Section 65 (2) of the Higher Education Act (HochSchG) means that the applicant has completed a vocational apprenticeship with a qualified result and has then gained at least two years of professional or comparable experience. Applicants who have completed further professional qualification by passing a master craftsman examination or a similar examination will also qualify for higher education entrance.

(5) The final decision about the admission of candidates who fulfil the formal enrolment requirements is made by the Examination Board of the degree programme on the basis of the procedure regulated in Appendix B of these regulations. Together with the application for admission to the continuing education Master’s degree programme “Software Engineering for Embedded Systems”, the applicant must provide a curriculum vitae in accordance with Appendix B of these examination regulations.

(6) The language used for teaching and examinations is English. Proof of English proficiency must be provided at the time of enrolment and may consist of one of the following:

1. Completion of an English-language undergraduate degree program
3. Cambridge Certificate of Proficiency (CPE): Grade B or C
4. IELTS: 5.5-6.5
5. TOEFL computer-based: 200-240
6. TOEFL paper-based: 543
Section 2a Aptitude Test

(1) The objective of the aptitude test is to determine whether the professional qualification and the technical skills of the applicants correspond to those of a completed undergraduate degree program. In the aptitude test, it is assessed whether an applicant fulfills the necessary technical and professional prerequisites that indicate that he or she will be able to successfully complete this degree programme.

(2) The aptitude test consists of

1. two examinations comprising relevant fundamental topics from the area of the computer science Bachelor degree programme and conducted either as written examinations or as oral aptitude interviews with examination character;
2. the submitted portfolio (pursuant to Section 2a (4))

(3) The decision about whether the examinations will be conducted orally or in writing is made at the end of the application period. The applicants are informed of the decision when they are admitted to the aptitude test.

(4) Admission to the aptitude test is granted upon submission of an application, which must have been received by the application deadline determined by the Department of Study Affairs by said office. The standard form is provided by the Department of Study Affairs. The registration deadline for reviewing admissions to the aptitude test ends no later than 31 January of each year. This application deadline is published on the website of the Distance & Independent Studies Center.

The application has to be accompanied by a portfolio that proves the applicant’s aptitude and qualification for the distance study degree program “Software Engineering for Embedded Systems”:

1. Curriculum vitae in tabular form
2. Projects / Areas of responsibility
3. School transcripts and apprenticeship transcripts, if applicable
4. Proof of examinations passed in the course of continuing education programmes
5. Certificates of employment, resp. proof of all experience-relevant activities

(5) Admission to the aptitude test may only be denied if

1. the documents in accordance with (3) are not provided in whole or in part;
2. the professional work is not relevant (IAW Section 2 (4)) for the selected degree programme;
3. the prerequisites in accordance with Section 2 of these regulations are not fulfilled.

The applicants are informed in writing by the Department of Study Affairs about the decision regarding the admission. Together with the admission notification, an invitation is sent for the examinations.

(6) If an aptitude test is performed as a written examination, it consists of a written test conducted at an examination date announced by the Department of Study Affairs. The duration of the written test shall be at least one hour, but not more than two hours. The examiners in charge decide about whether auxiliary materials are admissible; the candidates are informed about this when they receive the examination date. Written aptitude tests (written tests) are reviewed and graded by an examiner appointed by the Examination Board. The grading process shall not exceed four weeks. The aptitude test is passed if at least 80% of the maximum number of points have been achieved (cf. Appendix C). The applicants are informed in writing about the result of the written examination by either the Department of Study Affairs or the Distance and Independent Studies Center.

(7) If an aptitude test is conducted orally, it is performed as an aptitude interview with examination character in front of an examiner in the presence of a qualified assessor either as an individual examination or as a group examination. The main topics and results of the oral examination shall be recorded in writing. Prior to determining the grade, the examiner consults the assessor. The aptitude interview(s) with examination character is/are graded. The consultation about the grades is not open to the public. At the request of a female student, the central equal opportunities officer
or the equal opportunities officer of the Department of Computer Science may attend oral examinations. The aptitude interview(s) with examination character is/are considered passed if at least the grade "sufficient (ausreichend, 4)" (cf. Section 13) has been achieved.

(8) The aptitude test is considered passed if both examinations have been passed.

(9) Regarding the period of validity and the possibility of retaking the aptitude test, the following regulations apply:

1. If the aptitude to commence the postgraduate distance study degree programme "Software Engineering for Embedded Systems" has been determined, the applicant is entitled to start the programme in the three application cycles directly following the aptitude test.

2. Applicants whose aptitude was not established can retook the test the earliest at the next regular aptitude test date. The failed aptitude test can be retaken a maximum of two times. If the aptitude test is retaken, it must be retaken in its entirety.

3. Aptitude tests taken at other universities do not replace the aptitude test stipulated by these regulations.

(10) The chairperson of the Examination Board shall issue a certificate indicating that the aptitude test has been passed.

Section 2b Credit for Professional Experience and Aptitude Test for Graduates of Universities of Cooperative Education (Diplom-Berufsakademien)

Graduates of university of cooperative education degree programmes holding the German degree "Diplom-Ingenieur" can be admitted to the MF SWES of the Technische Universität Kaiserslautern if they can provide proof of the following:

1. Successful conclusion of the university of cooperative education degree programme with the degree "Diplom-Ingenieur (BA)" in the subjects Business Information Systems, Applied Computer Science, Information Technology, Electrical Engineering, Intelligent Embedded Systems, or Biosystems Informatics,

2. a minimum of three years of relevant professional experience. Any such experience that was part of the university of cooperative education degree programme can be credited for a length of up to one year.

The proof in accordance with no. 1 is recognized as a passed aptitude test in the sense of the admission process for applicants who are admitted to a continuing education Master’s degree programme in Rhineland-Palatinate without an undergraduate degree.

Section 3 Regular Duration and Structure of Programme

(1) The regular duration of the continuing education MF SWES is four semesters. This includes one semester of core studies and three semesters of advanced studies.

(2) For successfully completed proofs of academic achievement and examination results, credit points are awarded in accordance with the ECTS (European Credit Transfer and Accumulation System). The credit points correspond to the amount of student workload that is usually required for studying the distance study texts or attending the classes, for preparing and revising the study materials, and for obtaining the proofs of academic achievement or passing the exam. The credit points are awarded when the respective proof of academic achievement has been acquired or the examination has been passed, independent of the grades obtained.

(3) The programme is structured in a modular way. The individual modules comprise interrelated academic contents. The scope of the distance study programme is a minimum of 54 weekly hours per semester (SWS), resp. 60 credits (ECTS points); cf. Appendices A.I and A.II, number 1 in each case.

(4) The language used in teaching and in the examinations is English. If desired, the candidate can also submit the proofs of academic achievements or take the examinations in German, provided the examiner appointed for the respective examination has the necessary language skills. The corresponding study and examination materials, however, will remain in English.
Section 4 Purpose, Contents, and Scope of the Master’s Examination

(1) By passing the Master’s examination, the candidate shall prove that he or she has acquired the basic skills as well comprehensive skills from the advanced studies phase and that he or she has acquired an overall understanding of the subject “Software Engineering for Embedded Systems”. The Master’s thesis, which is to be written as part of the Master’s examination, shall demonstrate that the candidate is able to work independently on a problem from the area of “Software Engineering for Embedded Systems” within a given period of time, using scientific methods.

(2) The Master’s examination comprises 54 weekly hours per semester, resp. 60 credit points, with 15 weekly hours per semester, resp. 15 credit points, being awarded for the Master’s thesis; it comprises the subject-specific examinations prescribed for the core studies phase as well as those for the advanced studies phase (cf. Appendices A.I and A.II), further achievements to be demonstrated by proofs of academic achievement (cf. (3)), as well as the Master’s thesis (cf. Sections 16, 17). The subjects of the individual subject-specific examinations are the contents of the study modules and the courses taught to which the subject-specific examinations refer. The examination modes of the subject-specific examinations are listed in Appendices A.I and A.II.

(3) The following achievements shall be demonstrated by means of proofs of academic achievement:

1. Successful participation in the classes offered during the classroom phases of the core studies phase as well as those of the advanced studies phase in accordance with Appendices A.I and A.II;
2. Successful completion of the mail-in exercises from the classroom phases in accordance with Appendix A.II.

The proofs of academic achievement are not graded.

(4) Deleted.

(5) The Master’s examination is passed if all subject-specific examinations and the Master’s thesis have been passed and all proofs of academic achievements for the remaining achievements that must be demonstrated have been submitted.

(6) Based on the successfully passed Master’s examination, the academic degree of “Master of Engineering” (abbreviated: “M.Eng.”) is awarded.

(7) The Master’s examination is considered failed if at least one of the subject-specific examinations as well as the corresponding repeat examination were assessed as not passed (cf. Section 14), if the Master’s thesis as well as its repetition according to Section 17 (4) were assessed as not passed, or if the entitlement to take an exam has expired prior to the passing of the Master’s examination (cf. Section 14 (7), Section 17 (4)).

Section 5 Examination Board

(1) The Department Council of the Department of Computer Science appoints an Examination Board for dealing with issues relating to examinations in the MF SWES programme. This board consists of the following seven members of the Department of Computer Science:

1. four tenured university professors,
2. one member of the academic staff,
3. one member of the non-scientific staff,
4. one student representative from one of the Master’s programs of the Department of Computer Science.

The examination board chairperson and his/her deputy is one of the tenured professors.

The members’ term in office is three years; that of the student representative is one year. There are no limitations regarding re-appointment.

(2) The Examination Board may transfer tasks to the chairperson of the Board. In urgent cases, the chairperson is entitled to make an express decision.
The Examination Board ensures that the stipulations of the Examination Regulations are adhered to. The Examination Board shall also ensure that proofs of academic achievement can be acquired and subject-specific examinations can be passed within the time periods stated in these regulations.

The chairperson of the Examination Board regularly reports to the Department Council of the Department of Computer Science regarding the examinations, the times of study, and the distribution of the subject-specific grades and the overall grades, and makes suggestions on revising the academic regulations and the examination regulations.

The chairperson of the Examination Board regularly reports to the Examination Board regarding the admissions made and the transcripts of record issued.

The members of the Examination Board have the right to attend all examinations.

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The members of the Examination Board have the right to attend all examinations.

The meetings of the Examination Board are not open to the public. The members of the Examination Board, the examiners, and the assessors (cf. Section 10) are obliged to adhere to official secrecy. If they are not civil servants, the chairperson shall swear them to secrecy.

The Examination Board may transfer examination-related tasks to the chairperson, the Department of Study Affairs, and the DISC.

Section 6 Credit for Times of Study, Academic Achievements, and Examination Results

(1) As a matter of principle, credit is given for academic achievements acquired at a university. This does not apply if there are significant differences regarding the competencies acquired. If no credit is given, the student shall be informed of the reasons. The equivalency agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs (Kultusministerkonferenz, KMK) and the German Rectors’ Conference (Hochschulrektorenkonferenz, HRK) as well as arrangements made in the context of university cooperation agreements shall be taken into account when credit is to be awarded.

(2) Para. (1) also applies correspondingly to times of study, examinations, and proofs of academic achievement acquired from state-recognized distance study programmes, for multimedia-supported examinations and proofs of academic achievement, and for such examinations or proofs of academic achievement acquired by early entrance students. Para. (1) is furthermore applicable for examinations and proofs of academic achievement acquired at other educational institutions, particularly at state or state-recognized universities of cooperative education as well as at Technical and Engineering Colleges as well as Officers’ Universities of the former German Democratic Republic.

(3) Upon application, equivalent skills and qualifications acquired outside higher education institutions shall be credited for up to a maximum of half of the degree programme.

(4) Academic achievements that correspond only partly to the required achievements shall be credited to the extent possible. In such cases, the Examination Board shall also determine which academic achievements shall be acquired in which form, within which period of time, and with which retake possibilities (conditional credit).

(5) If examinations and academic achievements are credited, grades are transferred – provided the grading systems are comparable – and are included in the calculation of intermediate grades and of the overall grade. In the case of non-comparable grading systems, the remark “passed” is included. In the transcript of records, the credit is marked.

(6) The students must present the documents required for the credit to be awarded to the Department of Study Affairs prior to starting their studies, together with the enrolment or admission application or the application for a change of subject.

(7) Credit for times of study, academic achievements, and examination results must be denied if these were acquired in the context of a degree programme that entitles the applicant to study at the Technischen Universität Kaiserslautern in accordance with Section 2.

(8) No credit may be given for the Master’s thesis.
Section 7 Examination Dates

(1) For all subject-specific examinations, dates are offered twice a year.
(2) The DISC determines the dates for the registration and conduction of the subject-specific examinations in coordination with the respective examiner and announces them to the students at the beginning of the semester.

Section 8 Registration for and Admission to the Subject-specific Examinations of the Master’s Examination

(1) The application for admission to a subject-specific examination of the Master’s examination shall be submitted to the DISC within the registration period. The deadlines are determined as prescribed in Section 7 (2).
(2) The application for admission to a subject-specific examination shall be accompanied by the following documents, provided these were not submitted before:
   A statement about whether and, if applicable, how often a candidate has already failed one or several subject-specific examinations in the MF SWES degree programme at an institution of higher education in Germany or comparable subject-specific examinations in another degree programme; whether the candidate has lost the right to take examinations in the MF SWES degree programme at another institution of higher education; or whether he or she is currently in the middle of an examination process.
(3) On the basis of the documents submitted, the Examination Board checks whether
   1. the documents are complete, or
   2. admission would be in contradiction to any stipulation of these Examination Regulations, or
   3. the candidate is in the middle of an ongoing examination process and the credit process in accordance with Section 6 has not been concluded yet or the result does not permit admission.
(4) If the documents are incomplete, the Examination Board decides about the admission; if at least one of the issues according to para. (4), no. 2 and 3 exists or if the candidate has lost the right to take examinations in the degree programme “Software Engineering for Embedded Systems” at another institution of higher education in Germany, the DISC will deny admission. Otherwise, the DISC will approve the admission. Candidates who have been admitted are notified by mail. Candidates whose admission is denied are notified in writing by the DISC.

Section 9 Withdrawal, Failure to Appear

(1) A candidate may withdraw from a subject-specific examination one single time without specifying reasons, provided he or she informs the department of student affairs either personally or in writing about his/her withdrawal no later than one week prior to the scheduled date of the subject-specific examination. In case of written notification, the date of the postmark is decisive. If a subject-specific examination consists of several sub-exams, the candidate can only withdraw from all of these sub-exams jointly; in this case, the withdrawal must be announced at least one week before the scheduled date of the first sub-exam.
(2) An examination or an ungraded proof of academic achievement counts as failed (5.0) if the candidate fails to appear for an exam without convincing reasons, or if he or she withdraws after the start of an examination without convincing reasons. The same is applicable if the Master’s thesis is not completed and submitted within the prescribed period of time.
(3) The candidate must provide the reasons claimed for the belated withdrawal or the failure to appear to the Examination Board without delay and in writing, and probable cause must be shown. If the cause is illness of the candidate, a medical certificate must be presented to the Department of Study Affairs. In cases of doubt, a certificate issued by a physician named by the university may be demanded. Illness of a candidate’s child for whom he or she is providing the predominant support is deemed equivalent to an illness of the candidate himself/herself. If the Examination
Board accepts the reasons, the registration is withdrawn and new examination dates are scheduled.

(4) Decisions about registration for and withdrawal from examinations shall be communicated to the candidate without delay and in writing, and reasons shall be given.

Section 10 Examiners and Assessors

(1) The Examination Board appoints the examiners of the individual subject-specific examinations. It may transfer the appointment process to the chairperson.

(2) Subject-specific examiners are university teachers representing the respective subject. If the number of university teachers available as subject-specific examiners is not sufficient, retired professors, honorary professors, qualified university lecturers (Habilitierte), academic and artistic staff with tasks pursuant to Section 56 (1), sentence 2 of the Higher Education Act, teachers for special purposes, as well as university lecturers can be appointed as subject-specific examiners by the Examination Board. Unless compelling reasons demand otherwise, they must have been accountable for their own, independent teaching at an institution of higher education in the subject to be examined. The examinations are only graded by persons possessing at least the qualification to be assessed by the examination or an equivalent qualification.

(3) Assessors are examiners or members of the scientific staff of the university or of computer science-related institutes. Assessors take the minutes during oral exams and their opinion is heard when the subject-specific grade is determined.

Section 11 Needs of Students with Disabilities, Compensation for Disadvantages

(1) The specific needs of students with disabilities are taken into consideration to ensure equality of opportunity.

(2) Disabled students may receive compensation, in the form of additional work materials and auxiliary materials, for disadvantages suffered, provided this is necessary to ensure equality of opportunity. This refers to such disabilities that are outside the skills to be determined by the respective examination and that may have a negative impact on the result of the examination. Constitutional or other diseases lasting for an indeterminate time as well as predispositions and peculiarities rooted in the personality of the candidate are disregarded, provided they refer to the academic abilities to be determined by the examination. Examples of ensuring equality of opportunity include appropriate extensions of the testing time or permission to take the examination in a different format. Prima facie evidence of the disability shall be furnished. The university may demand prima facie evidence to be furnished by means of presentation of a medical certificate. Compensation for disadvantages shall be applied for in writing; the application shall be made to the Examination Board. The application should be submitted no later than the registration for the examination.

Section 12 Examination Modes

(1) For each subject-specific examination, one of the two examination modes

- o – written
- w – oral

is stipulated and is stated in the Appendix for the examinations listed there.

(2) Written tests last for a minimum of 90 and a maximum of 240 minutes. Written tests may be divided, but must not last for more than four hours in total. An oral exam shall normally last 30 minutes for each candidate and each subject.

(3) The assessment process shall not exceed six weeks.

(4) Deleted.

(5) Oral exams are conducted by an examiner in the presence of a qualified assessor either as individual exams or as group exams. The major topics and results of the oral exam shall be recorded in writing. Prior to determining the grade, the examiner shall consult the assessor.
At any oral exam, students of the MF SWES degree programme may be present as observers after requesting permission from the examiner, provided that none of the candidates has objected to this when registering for the exam. The request must be submitted at least 14 days prior to the exam. The examiner decides about approving such requests depending on the number of seats available. Candidates with the same examination date are excluded from participating as observers. The consultation about the grades is not open to the public. At the request of a female student, the central equal opportunities officer or the equal opportunities officer of the Department of Computer Science may attend the oral examination.

After the conclusion of the respective subject-specific examination, the candidate is notified about the subject-specific grade. If the candidate so desires, he or she is granted access to the corrected written exams, respectively the minutes of the oral exams, within one year after the final grade for an examination has been announced.

In the case of examination results obtained by students with disabilities, the special interests of these students in terms of equal opportunities shall be taken into account. If a candidate furnishes prima facie evidence that due to a prolonged or permanent physical disability, he or she is unable to take the examination as a whole or in part in the intended format; the chairperson of the Examination Board shall allow equivalent examination results to be obtained within an extended period of testing or in a different format. For this purpose, the presentation of a medical certificate is required. The same applies to proofs of academic achievement.

Section 13 Grading of Examination Results

(1) For the grading of the examination results, the following grades are used:

1 = very good (sehr gut)
   = an outstanding result;

2 = good (gut)
   = a result considerably above the average requirements;

3 = satisfactory (befriedigend)
   = a result that corresponds to average requirements;

4 = sufficient (ausreichend)
   = a result that still meets the requirements despite its shortcomings;

5 = insufficient (nicht ausreichend)
   = a result that does not meet the requirements anymore due to major shortcomings.

(2) In order to enable a more differentiated performance assessment, intermediate grades may be awarded by reducing or increasing the subject-specific grade by 0.3; the grades 0.7 as well as 4.3, 4.7, and 5.3 are excluded.

(3) An examination is failed if the candidate receives a grade lower than 4.0. In these cases and in cases where an examination is considered as failed, the candidate receives written notification from the Department of Study Affairs.

(4) For the determination of the overall grade, the arithmetic mean of the grades in accordance with para. (1) weighted by the ECTS credit points (cf. Section 17 (2) and Section 18 (2)) is calculated. In this calculation, only the first decimal after the decimal point is considered; all other decimal places are deleted without rounding. The overall grades are:

If the average is between 1.3 and 1.5 (inclusive): very good (sehr gut);
if the average is over 1.5 and up to 2.5 (inclusive): good (gut);
if the average is over 2.5 and up to 3.5 (inclusive): satisfactory (befriedigend);
if the average is over 3.5 and up to 4.0 (inclusive): sufficient (ausreichend).

If the calculated grade average is better than 1.3, the overall grade “excellent” (Mit Auszeichnung bestanden) is awarded.

(5) If the Master’s examination is failed or is considered failed, the chairperson of the Examination Board informs the candidate in writing. In this case, the Department of Study Affairs issues a
written certification, if so requested by the candidate, containing all examination results and their grades.

(6) Recognized examination results and proofs of academic achievement that were not acquired at the Technische Universität Kaiserslautern are entered into the transcript of records of the Master’s examination without a grade and stating the respective institution of higher education with the remark “recognized as an examination result”. In such cases, an overall grade is only calculated if at least half of the examination results were obtained at the Technische Universität Kaiserslautern. The examination results not obtained at the Technische Universität Kaiserslautern do not become part of this overall grade; the transcript of records contains a remark indicating this.

(7) The official notification about the failed Master’s examination shall contain information on legal remedies.

Section 14 Retaking of Subject-specific Examinations, Deadlines

(1) With the exception of the Master’s thesis, each subject-specific examination that received a grade lower than 4.0 or is considered as failed may be retaken twice. The Master’s thesis can be retaken once provided it was graded lower than 4.0 or is considered as failed. Passed subject-specific examinations may not be retaken.

(2) A failed subject-specific examination must be retaken at the next examination date offered to the candidate.

(3) Deleted.

(4) When determining the times of study that are relevant for obtaining proofs of academic achievement or meeting the deadline for registering for or taking an examination or its retake, extensions and interruptions of times of study are not taken into account as long as they were caused by

1. participation in legally or statutorily designated boards of an institution of higher education, a student body, or a student union,

2. illness, a disability, or other reasons that the student is not responsible for,

3. pregnancy or the raising of a child; in these cases, the student must be enabled at least to make use of the statutory periods of time allowed by the Maternity Protection Act (Mutterschutzgesetz) as well as the periods of time stipulated by the German Federal Act on the Payment of Child Raising Benefit and Child Raising Leave (Bundeserziehungsgeld- und Elternzeitgesetz) regarding child raising leave.

4. care for a dependent relative,

5. a proper, relevant period of study abroad for up to two semesters; this does not apply to periods of studying abroad that are prescribed by the examination regulations, or

6. company affairs in the context of a part-time, career-integrated, or cooperative degree programme.

Proof of the reasons must be provided by the student.

(5) To comply with the deadline for mail-in academic achievements and examinations (incl. the Master’s thesis), the date of the postmark is decisive.

(6) In justified cases, the deadline for mail-in academic achievements can be extended once by up to eight weeks upon request of the student. The deadline is extended by the Examination Board of the degree programme. The application shall be submitted to the Examination Board no later than six weeks prior to the deadline. If a medical certificate is presented, later submission of the application is permissible.

(7) For all required academic achievements and examinations with the exception of the Master’s thesis, the candidate must have registered for the first time no later than by the end of the sixth semester.
The Master’s thesis must be registered within one semester after completing all examinations and proofs of academic achievement. If the student misses the registration deadlines without convincing reasons, the achievement is considered as a failed first attempt if the registration deadline is missed by another two semesters after the last possible registration deadline.

(8) If the student has failed the last possible retake examination or if this examination is considered failed, the student has permanently lost the right to take this examination. The chairperson of the Examination Board then issues a written notification with information about legal remedies.

### Section 15 Deception, Disruption, Invalidity

(1) If the candidate attempts to influence the result of his/her examination performance through deception or through the use of unauthorized auxiliary materials, the respective examination result will count as being graded with “insufficient/nicht ausreichend” (5.0). A candidate who disrupts the orderly conduct of the exam may be barred by the respective examiner or proctor from continuing the exam; in such a case, the respective examination result will count as being graded with “insufficient/nicht ausreichend” (5.0). In serious cases, the Examination Board may bar the candidate from taking further examinations.

(2) Within a period of four weeks, the candidate may request that the decisions made according to para. (1), sentences 1 and 2 be reviewed by the Examination Board. Incriminating decisions shall be communicated to the candidate without delay and in writing, and reasons shall be given.

(3) If the candidate has cheated during an exam and if this act is only revealed after the transcript of records has been issued, the Examination Board can retroactively correct the grades accordingly for those examinations on which the candidate cheated and can declare the examination as a whole or parts thereof as failed.

(4) If the prerequisites for admission to an examination were not fulfilled without any intention to cheat on the part of the candidate, and if this fact is only revealed after the transcript of records has been issued, then this defect is rectified by the passing of the examination. If the candidate willfully gained wrongful admission, the Examination Board shall make a decision in accordance with the Law on Administrative Procedure Applicable in the Land (Landesverwaltungsverfahrensgesetz) dated 23 December 1976 (GVBl. p. 308).

(5) Before the decision is made, the candidate shall be provided an opportunity to make a statement.

(6) The incorrect examination transcript and possibly the Master’s certificate and the Diploma supplement shall be seized and, if necessary, new ones shall be issued. After a period of five years starting from the date of the examination transcript, a decision in accordance with para. (3) and (4), sentence 2, is precluded.

### Section 16 Master’s Thesis

(1) The objective of the Master’s thesis is to demonstrate that the student is capable of independently solving, within a limited period of time, a computer science problem under the guidance of a supervisor, using scientific methods, and that the student is capable of presenting the results in writing and arguing them in a discussion.

(2) The topic of the Master’s thesis is defined and supervised by a university teacher of the Department of Computer Science of the Technische Universität Kaiserslautern in such a way that its completion corresponds to an effort of 15 credit points. In the case of external Master’s theses, the Examination Board may appoint external persons as secondary examiners of such a Master’s thesis. The date of issue of the topic of the Master’s thesis shall be documented in writing.

(3) The topic of the Master’s thesis shall come from the subject area of the advanced studies phase. The candidate shall be provided the opportunity to make suggestions regarding the topic of the Master’s thesis. Upon demand by the student, the chairperson of the Examination Board can assign a topic for the Master’s thesis.

(4) Deleted.

(5) The earliest time that the Master’s thesis can be registered is when the following prerequisites are fulfilled:
1. Proof of all passed examinations of the core studies phase,
2. Proof of two passed examinations of the advanced studies phase,
3. Proof of participation in two classroom phases of the advanced studies phase.

The latest possible date for registering the Master’s thesis is determined by Section 14 (7).

(6) The date of issue of the Master’s thesis topic shall be documented in writing.

(7) The time allowed for completion of the Master’s thesis is a maximum of six months. The topic may only be returned once and only within the first two months of the time allowed for completion of the thesis. If the topic is returned on time, a new topic must be registered within four weeks. If the completed Master’s thesis is not submitted on time, it is considered as a failed first attempt. In justified cases, the chairperson of the Examination Board may, upon request by the student, extend the time allowed for completion of the thesis by a maximum of three months. The request must be submitted to the Examination Committee at least six weeks prior to the deadline. If a medical certificate is presented, later submission of such a request is permissible.

(8) When submitting the Master’s thesis, the candidate shall affirm in writing that he or she is the sole author of his or her work and has not used any sources or auxiliary materials other than those stated.

(9) To check that the Master’s thesis was written by the student on his/her own, a final colloquium is held about the thesis with at least one of the examiners. In the case of serious doubts regarding the self-authorship of the Master’s thesis, the Examination Board shall hear the candidate and shall decide together with the examiner whether to accept and grade the thesis or whether this is a case in accordance with Section 15 (1), sentence 1. If so desired by the student, this hearing may take place electronically, for example via a phone or web conference.

Section 17 Acceptance and Grading of the Master’s Thesis

(1) The Master’s thesis shall be submitted in two copies to the Department of Study Affairs on time; the date of submission shall be recorded. In addition, the thesis shall be submitted in an electronic format according to the stipulations of the Department of Computer Science for the purpose of being checked for plagiarism. This submission may be done on a DVD, CD, or a USB stick. If the Master’s thesis is not submitted on time, it is considered as graded with insufficient/nicht ausreichend (cf. Section16, (7)).

(2) As a rule, the Master's thesis shall be graded by two examiners; at least one of the examiners must be a university teacher. One of the examiners must be the one who assigned the topic of the Master's thesis. The grading process should not exceed six weeks. If the assigned grades do not match and the Master's thesis has been passed, the arithmetic mean of the two grades is calculated and the grade is determined in accordance with Section 13 (4). If only one of the two examiners grades the Master’s thesis with 5.0, or if the difference between the assessments performed by the two examiners is greater than two entire grades, a third examiner is appointed by the chairperson of the Examination Board; the chairperson of the Examination Board makes the decision about the final grade of the Master's thesis taking into account the three grades available.

(3) If the Master's thesis is graded as "insufficient/nicht ausreichend" or is assessed as “failed/nicht bestanden”; it can be repeated one single time. The repetition must be registered within six weeks after notification about the failure of the first Master’s thesis is received; a new topic must be chosen. However, returning the topic within the period of time stipulated in Section 16 (7) is only admissible if the candidate did not make use of this possibility during the first Master’s thesis. If the deadline for the repetition of the registration or submission of the Master’s thesis is missed, the examination entitlement becomes null and void.

Section 18 Transcript of Records of the Master’s Examination, Master’s Certificate, Diploma Supplement
An English-language transcript of record regarding the passed final examination is normally issued within four weeks. It contains the subject-specific grades obtained in all subject-specific examinations of the distance study degree programme, the names of the respective examiners, and the overall grade. Furthermore, all classes and subject areas of the distance study degree programme are listed in which successful participation, respectively work, must be demonstrated by proofs of academic achievement. If so requested by the candidate, the duration of his/her studies in the subject up until the conclusion of the final examination shall be included in the transcript of records. The date of the transcript of records shall be the date on which the last examination was taken. The transcript of records is signed by the chairperson of the Examination Board and the seal of the Land is affixed to it.

The overall grade of the passed Master’s examination is calculated from the grades of all subject-specific examinations of the Master’s examination and the grade of the Master’s thesis. The overall grade is calculated in accordance with the stipulations of Section 13 (4).

Together with the transcript of records of the Master’s examination, the candidate receives a certificate awarding the academic degree pursuant to Section 4 (6) (Master of Engineering) bearing the date of the transcript of records. The transcript of records and the certificate may be issued in German, if so requested. The Master’s certificate bears the signature of the Dean of the Department of Computer Science and that of the chairperson of the Examination Board.

In addition, the graduate receives an English-language Diploma Supplement (DS) in accordance with the “Diploma Supplement Model” of the European Union/European Council/UNESCO. For the representation of the national education system (DS paragraph 8), the text coordinated between the Standing Conference of the Ministers of Education and Cultural Affairs (Kultusministerkonferenz) and the German Rectors’ Conference (Hochschulrektorenkonferenz) in its respective applicable version shall be used.

The Diploma Supplement contains the respective ECTS degree as well as the pertinent ECTS definition in accordance with the applicable assessment scheme of the European Credit Transfer and Accumulation System.

Documents regarding academic achievements and examinations (written tests, mail-in exercises, coursework, Master’s theses, as well as related examiners’ reports and minutes) are kept for two years after the conclusion of the last examination (date of the transcript of records).

Section 19 Effective Date

These Examination Regulations come into effect one day after their publication in the Staatsanzeiger für Rheinland-Pfalz.

Section 20 Transitional Regulations

This version of the Examination Regulations is applicable for students who are enrolled in the programme “Software Engineering for Embedded Systems” from the winter semester 2015/2016 onward. For students enrolled prior to the winter semester 2015/2016, the Examination Regulations dated 8 January 2010 and last amended on 26 June 2013 apply (Staatsanzeiger published on 29 July 2013, no. 26, p. 1311).
Kaiserslautern, 08 January 2010

The Dean
of the Department of Computer Science
of the Technische Universität Kaiserslautern

Prof. Dr. Karsten Berns
Appendix A to Section 4 (2) and (3) and to Section 16: Academic Achievements of the Master’s Examination

Academic Achievements of the Master’s Examination during the Core Studies Phase

The performance reviews of the Master’s examination during the core studies phase are part of the modules of the core studies phase. An overview of the modules of the core studies phase, incl. the credit points that can be achieved through successful participation, is listed under number 1 of section A.I, an overview of the examinations under number 2, and an overview of the proofs of academic achievement under number 3. The students are informed about the exact deadlines and modes at the beginning of each semester in the semester information booklet.

Academic Achievements of the Master’s Examination during the Advanced Studies Phase

The performance reviews of the Master’s examination during the advanced studies phase are part of the modules of the advanced studies phase. An overview of the modules of the advanced studies phase, including the credit points that can be achieved through successful participation, is listed under number 1 of section A.II, an overview of the examinations under number 2, and an overview of the proofs of academic achievement under number 3. The students are informed about the exact deadlines and modes at the beginning of each semester in the semester information booklet.

A.I Study Modules of the Core Studies Phase

1. Study Modules

<table>
<thead>
<tr>
<th>Semester</th>
<th>Mandatory Module, resp. Classroom Phase</th>
<th>Weekly Hours per Semester (SWS) / Credit Points (ECTS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WS</td>
<td>B-M.1: Software Engineering Basics</td>
<td>8 / 7</td>
</tr>
<tr>
<td></td>
<td>(consisting of: Software Engineering Introduction and Software Development for Embedded Systems)</td>
<td></td>
</tr>
<tr>
<td>WS</td>
<td>B-M.2: Project Management</td>
<td>3 / 4</td>
</tr>
<tr>
<td></td>
<td>Total Effort</td>
<td>11 / 11</td>
</tr>
</tbody>
</table>

2. Subject-specific Examinations

<table>
<thead>
<tr>
<th>Subject-specific Examination</th>
<th>Examination Mode</th>
<th>Examination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written test “Software Engineering Basics”, part of module B-M.1</td>
<td>W</td>
<td>WS</td>
</tr>
<tr>
<td>Written test “Project Management”, part of module B-M.2</td>
<td>W</td>
<td>WS</td>
</tr>
</tbody>
</table>

3. Study Modules and Classes for which Proofs of Academic Achievement must be acquired in accordance with Section 4 (3):

<table>
<thead>
<tr>
<th>Study Module, resp. Class</th>
<th>Achievement to be demonstrated by</th>
<th>Semester</th>
</tr>
</thead>
</table>
A.II  Advanced Studies Phase

1.  Study Modules

<table>
<thead>
<tr>
<th>Semester</th>
<th>Study Module resp. Classroom Phase</th>
<th>Weekly Hours per Semester (SWS) / Credit Points (ECTS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>V-M.1: Software Quality Engineering (consisting of: Software Quality Assurance and Software Product Line Engineering)</td>
<td>5 / 7</td>
</tr>
<tr>
<td>SS</td>
<td>V-M.2: Software Concept Engineering (consisting of: Requirements Engineering and Software Architectures for Embedded Software Systems)</td>
<td>6 / 7</td>
</tr>
<tr>
<td>SS</td>
<td>Classroom phase V.1: Quality and Concept Engineering</td>
<td>3 / 3</td>
</tr>
<tr>
<td>WS</td>
<td>V-M.3: Software Component Engineering (consisting of: Component-based Software Development and Model-based Component Engineering)</td>
<td>5 / 7</td>
</tr>
<tr>
<td>WS</td>
<td>V-M.4: Embedded Software Engineering (consisting of: Realtime Systems and Dependability Engineering)</td>
<td>6 / 7</td>
</tr>
<tr>
<td>WS</td>
<td>Classroom phase V.2: Component and Embedded Software Engineering</td>
<td>3 / 3</td>
</tr>
</tbody>
</table>

Total Effort (incl. Master's thesis with 15 SWS resp. 15 credit points) 43 / 49

2.  Subject-specific Examinations

<table>
<thead>
<tr>
<th>Subject-specific Examination</th>
<th>Examination Mode</th>
<th>Examination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written test “Software Quality Engineering”, part of module V-M.1</td>
<td>W</td>
<td>SS</td>
</tr>
<tr>
<td>Written test “Software Concept Engineering”, part of module V-M.2</td>
<td>W</td>
<td>SS</td>
</tr>
<tr>
<td>Written test “Software Component Engineering”, part of module V-M.3</td>
<td>W</td>
<td>WS</td>
</tr>
<tr>
<td>Written test “Embedded Software Engineering”, part of module V-M.4</td>
<td>W</td>
<td>WS</td>
</tr>
</tbody>
</table>

3.  Study Modules and Classes for which Proofs of Academic Achievement must be acquired in accordance with Section 4 (3):

<table>
<thead>
<tr>
<th>Study Module, resp. Class</th>
<th>Achievement to be demonstrated by</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom phase V.1: “Quality and Concept Engineering”</td>
<td>Oral or written test and successfully completed mail-in exercises</td>
<td>SS</td>
</tr>
<tr>
<td>Classroom phase V.2: “Component and Embedded Software Engineering”</td>
<td>Oral or written test and successfully completed mail-in exercises</td>
<td>WS</td>
</tr>
</tbody>
</table>

4.  Master's Thesis

<table>
<thead>
<tr>
<th>Master’s Thesis pursuant to Sections 16, 17</th>
<th>Examination Mode</th>
<th>Examination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W</td>
<td>SS</td>
</tr>
</tbody>
</table>
Appendix B to Section 2 (5)

(1) The process described below serves to determine the professional and personal aptitude of an applicant for admission to the Master’s degree programme “Software Engineering for Embedded Systems”.

(2) The prerequisites are successful completion of an undergraduate university degree programme as well as proof of at least two years of work experience subsequent to the first degree in accordance with Section 2 (2), Section 2a, and Section 2b of these regulations.

The relevant work experience of students who otherwise qualify for admission, but whose undergraduate study program that entitles them to admission to this program has fewer than 240 ECTS points or whose degree program has a regular duration of fewer than eight semesters, is additionally recognized as equivalent to at least the number of missing ECTS points.

For each year of relevant work experience, which must have occurred after the completion of the first degree, the affected student can be awarded 30 ECTS points. Credit can be awarded for a maximum of 60 ECTS points; the sum of the credited ECTS points and the ECTS points for the qualifying undergraduate degree must not exceed 240 ECTS points.

The credited relevant work experience is listed on the Master’s degree transcript of the affected students with the number of ECTS points awarded therefore. It is part of the prerequisites for the successful completion of the distance study degree programme. For the affected students, the credited ECTS points become part of the mandatory scope of the distance study degree programme.

(3) The aptitude shall be determined on the basis of the following documents, which must be included with the application in German or in English:

1. Final certificate of the degree programme and, if applicable, further documents, indicating the final grade, the duration of the studies, and the academic achievements acquired, for example in the form of an academic transcript, a transcript of records, or a corresponding proof of academic achievement;
2. presentation of the professional and personal career (curriculum vitae), if applicable with explanations of practical skills and experiences;
3. confirmation by the employer, either as an officially authorized copy or an original that clearly shows the duration and the type of work.

(4) Deleted.

(5) The assessment criteria are, in particular:

1. active mastering of the English language,
2. above-average academic achievements in the degree programme that is the prerequisite for the Master’s degree programme pursuant to Section 2,
3. practical skills and experiences that will be beneficial for the Master’s degree studies,
4. sufficient motivation for studying the degree programme,
5. ability to study expeditiously and effectively.

(6) Relevance refers to work experience in the area of software development and should be orientated along the expected general results of studying for a Bachelor degree:

1. The graduates have the necessary knowledge in computer science, engineering, and mathematics as well as the necessary skills to be able to plan, design, and realize embedded systems in different areas.
2. Graduates of a Bachelor degree programme in Computer Science are able to work in a method-oriented way in an area of computer science.
3. The graduates have acquired initial experience with development tasks and team work.
4. The graduates have acquired skills regarding the general foundations of computer science.
5. The graduates have acquired skills in theoretical computer science.
6. The graduates have acquired skills in software development.
7. The graduates have acquired general information technology basics.
8. In addition, the graduates have completed advanced studies in at least one focus subject in the area of Computer Science.
9. The graduates have acquired skills in one minor subject that is not part of the core area of Computer Science. Examples include Management, Economics, Business Administration, Electrical Engineering, Mechanical Engineering, Physics, Biology.
10. The graduates have acquired initial skills in the area of project management.

Credit for students’ work experience is given on the basis of the description of work issued by their current or previous employers.

Appendix C to Section 2a (5) and (6):

Assessment of the aptitude tests (written test and/or oral aptitude interview) pursuant to Section 2a (5) and (6):

<table>
<thead>
<tr>
<th>% of points achieved</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-100%</td>
<td>Passed</td>
</tr>
<tr>
<td>0-79%</td>
<td>Failed</td>
</tr>
</tbody>
</table>