# Examination Regulations for Master's degrees in Computer Science and Socioinformatics at the Technische Universität Kaiserslautern from 16 July 2018

(Publication No. 7 from 17.09.2018)

In accordance with §7 Section 2, No. 2 and 3 and §86 Section 2, Clause 1, No. 3 in conjunction with §76, Section 2, No. 6 of the University Act as amended on 19 November 2010 (GVBL p.463), last amended by Article 7 of the Act from 7 February 2018 (GVBL p.9), BS 223-41, on 27.06.2018 the department council of the Department of Computer Science at the Technische Universität Kaiserslautern issued the following examination regulations for Master's degrees in Computer Science at the Technische Universität Kaiserslautern. The senate of the Technische Universität Kaiserslautern commented on the regulations on 11.07.2018. The regulations were approved by the President of the Technische Universität Kaiserslautern in writing on 12 July 2018, Az.: 4/MF-Och-2018-43-05. The regulations are published here.

\*\*The following is a translation of the regulations to help non-German speakers, however, only the German version is legally binding.\*\*

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# Section I: General information about the study course

# § 1 Scope, type of course, purpose of the examination, academic degree

- (1) These regulations specify the procedure, the requirements, the admission to and the completion of the examination for the Master's courses in Computer Science and Socioinformatics (hereinafter referred to as the Master's course) at the Technische Universität Kaiserslautern.
- (2) The Master's course is a research-oriented academic degree programme, which leads to a second professional academic qualification. It is part of a consecutive programme of study. Its aim is to enable students to work scientifically and methodically, to impart theoretical-analytical skills and to enable the students to adapt openly and creatively to new conditions in professional life, to classify scientific findings critically and use them purposefully.
- (3) The Master's examination should determine whether the student has acquired the necessary professional, methodological, and interdisciplinary skills required to deal with new complex tasks and problems as well as for independent work in research or in a strategy-oriented professional field of activity and can use these to fulfill vocational tasks.
- (4) After the course has been completed successfully and the student has passed the Master's examination, the Technische Universität Kaiserslautern will award the academic degree "Master of Science" (M.Sc.). The student may place these post-nominal letters after their name.
- (5) The Master's course is predominantly in English.
- (6) In addition to these regulations, students should also refer to the general study plan and module guide for orientation and for the planning of their studies, knowledge of which is indispensable for the course. The general study plan provides information about the contents, focus and requirements, particularly the planned courses. For the students, it serves as a recommendation of how to structure their studies appropriately within the standard period of study. The module guide contains detailed descriptions of the teaching content, the skills to be acquired, the compulsory examinations, the forms of teaching, the time scale (in credit points (CP) and weekly semester hours (SWS)) as well as the breakdown into compulsory, compulsory elective and elective modules. The general study plan and module guide are not part of these regulations.

### § 2 Admission requirements

- (1) The following requirements must be met in order to be admitted to the Master's course:
  - 1. Applicants fulfill the general admission requirements of the Technische Universität Kaiserslautern,
  - 2. they fulfill the admission requirements specific to the Master's programme according to Sections (1a) and (1b),
  - 3. they provide evidence of professional competence in accordance with the assessment procedure in Appendix 2,

- 4. they provide evidence of suitable language skills (Sections 5 and 6) and
- 5. they are professionally suited to this course based on the assessment procedure carried out by the examination board (Appendix 2).

When assessing the equivalence of qualifications in No. 2, no schematic comparison is to be made, but an overall assessment with regard to the chosen course of study. Otherwise, the regulations of the respectively valid Bachelor examination regulations for the degrees Computer Science and Socioinformatics at the Technische Universität of Kaiserslautern apply.

- (1a) For admission to the Master's course Computer Science, applicants must have successfully passed the Bachelor's examination in Computer Science or Applied Computer Science at the Technische Universität Kaiserslautern or at least have equivalent study and examination achievements including a university degree qualifying for a profession,
- (1b) For admission to the Master's course Socioinformatics, applicants must have successfully passed the Bachelor's examination in Socioinformatics at the Technische Universität Kaiserslautern or at least have equivalent study and examination achievements including a university degree qualifying for a profession,
- 2) If the examination board approves, in justified exceptional cases, students who still require a maximum of 30 CP of achievements to successfully complete their Bachelor's examination or equivalent (Section 1, Clause 1, No. 2) and can provide proof of language skills in accordance with Section 1 No. 4 may also be admitted to the Master's course. Enrolment expires if the admission requirements for the Master's course cannot be proven by the end of the first semester.
- (3) Not applicable.
- (4) Due to the assessment procedure, the examination board may restrict the student's options when organizing the examination plan (§11 Section 3, No. 3).
- (5) Students are required to have sufficient active and passive German and English language skills. Applicants who did not do their qualifying degree at a German-speaking institution must provide evidence of adequate knowledge of the German language in accordance with the President's administrative regulation "German Language Certificate for Students on International Courses at the Technische Universität Kaiserslautern (DSI)" before the start of their course. Further details can be found in the Enrolment Regulations of the Technische Universität Kaiserslautern.
- (6) Students are required to have sufficient English language skills for the programme. This can be achieved by:
  - 1. A university entrance qualification acquired in Germany or at least equivalent in terms of English language education as one acquired in Germany in accordance with § 65 Section 1 of the Higher Education Act (hereinafter referred to as the HochSchG),
  - 6. an IELTS result (International English Language Testing System) of at least 6,0
  - 7. a TOEFL test result of at least 79 points (Internet-based) or at least an equivalent test result,

- 8. language proficiency level B2 with the Common European Framework of Reference for languages or
- 9. approval by the examination board.
- (7) Another requirement for admission to the Master's Course is that the right to take the examination for the Master's course hasn't been lost. A corresponding declaration and supporting documents if applicable must be presented for the verification of this during the course of enrolment and no later than when the student first registers for examinations. Further details can be found in §§ 6 and 11.
- (8) Admission may be subject to conditions (§ 2a).
- (9) Participation in individual classes may be restricted if there is a limited number of participants allowed due to the nature and purpose of the class or for other reasons related to research and teaching. If there is a limit to the number of participants permitted due to the nature and purpose of the class and the number of prospective students exceeds the capacity, the class lecturer will inform the examination board to manage the admission procedure. Preference should be given to students who registered on time within a set deadline to avoid undue hardship, provided that they are relying on attending the class at this time, in accordance with the degree programme and the course of their studies.

# § 2a Admission subject to conditions

- (1) If the applicant has a university degree which qualifies for a profession but isn't equivalent in terms of §2 Section 1 No. 2, the applicant may be admitted under the conditions set out in Section 2, Clause 1 with obligations. Based on these obligations, missing study and examination achievements as determined by the examination board that together with the final university examination are equivalent in accordance with §2 Section 1, No. 2, are to be provided.
- (2) The following applicants are admitted subject to obligations:
  - 1. The applicant fulfills the general admission requirements of the Technische Universität Kaiserslautern.
  - 2. the applicant has successfully completed a university degree that qualifies for a profession,
  - 3. if according to the assessment of the examination board, a maximum of 30 CP from the modules are still missing in accordance with the valid Bachelor examination regulations for the degree courses Computer Science and Socioinformatics at the Technische Universität Kaiserslautern to fulfill the purpose of the obligations (Section 1, Clause 2).
  - 4. evidence of professional competence is provided in accordance with the assessment procedure in Appendix 2, or proof is provided that the obligations are fulfilled.
  - 5. the applicant is suited to the degree programme in terms of language skills according to § 2 Sections 5 and 6.
- (3) Admission subject to obligations is not permitted if according to the assessment of the examination board more than 30 CP are missing in accordance with the valid Bachelor

examination regulations for the degree courses Computer Science and Socioinformatics at the Technische Universität Kaiserslautern to fulfill the purpose of the obligations (Section 1, Clause 2).

- 4) Students are allowed to resit a failed examination within the scope of the obligations once. All conditions, including examination resits if applicable are to be fulfilled within the first four examination periods.
- (5) If one of the obligations is not fulfilled, the student is to be excluded from providing further course and examination achievements and re-registration is to be refused. The student will be informed about this; § 19, Section 4 applies accordingly. The achievements attained as part of the obligations are to be listed in the notification according to §21 Section 7.
- (6) Otherwise, the regulations of the currently valid Bachelor examination regulations for Computer Science and Socioinformatics at the Technische Universität Kaiserslautern are to be applied correspondingly for the study and examination achievements as part of the obligations.

# § 3 Start of the study course and standard period of study

- (1) The student may start the study course in the winter or summer semester.
- (2) The standard period of study is four semesters.
- (3) In order to adhere to the standard period of study, the course is set up so that all the coursework and examinations/examined assignments can be completed by the end of the fourth semester.

### § 4 Master's examination

The Master's examination includes all coursework and examinations/examined assignments necessary to attain the Master's degree in accordance with Appendix 1. Coursework and examinations/examined assignments are allocated to modules (§ 5).

# § 5 Modular course structure, credit points system, course achievements

- (1) The course is divided into sections and modules (Section 3). Sections combine modules, including the Master's thesis, into thematic or structural units. This course is divided into the following sections:
  - 1. The Master's course Computer Science is divided into the following sections:

Section	Modules included
Theoretical	Module see Appendix 1.1
Computer Science	
Formal foundations	See topics and modules in Appendix 1.1

Specialisation 1	Modules for specialised lectures or specialised lectures with an exercise class in a chosen subject area from Specialisation 1					
	A seminar in a chosen subject area from Specialisation 1					
	A project in a chosen subject area from Specialisation 1					
	The following specialisations are available:					
	Algorithmics and deduction					
	Embedded systems and robotics					
	Information systems					
	Intelligent systems					
	Distributed and networked systems					
	Software engineering					
	Visualisation and scientific computing					
Specialisation 2	Further modules for specialised lectures or specialised lectures with an exercise class in a subject area different from the ones in Specialisation 1					
	The following subject areas are available in Specialisation2 (if they weren't already taken in Specialisation 1):					
	Algorithmics and deduction					
	Embedded systems and robotics					
	Information systems					
	Intelligent systems					
	<ul> <li>Distributed and networked systems</li> </ul>					
	Software engineering					
	Visualisation and scientific computing					
Supplement	Elective modules (free choice in accordance with Appendix 1.1)					
Final assignment	Master's thesis					

# 2. The Master's course Socioinformatics is divided into the following sections:

Section	Modules included					
Computer Science	Compulsory modules					
	Artificial intelligence					
	Foundations of software engineering					
	Compulsory elective modules					
	Intelligent systems					
	Software engineering 2					
Theories of human	Compulsory modules					
behaviour	Game theory					

	Psychology						
	Compulsory elective modules						
	Cognitive science						
Economics	Focus "Business information systems & OR"						
In the economics part of the course, students can choose between the focus "Business information systems & OR" or Start-up management"	Compulsory modules						
	Electronic markets						
	<ul><li>Compulsory elective modules</li><li>Business information systems &amp; OR</li></ul>						
	Focus "Start-up management"						
	Compulsory modules						
	Entrepreneurial marketing						
	<ul> <li>Lecture series Entrepreneurship and digital management</li> </ul>						
Socioinformatics	Compulsory modules						
	Formal modelling of complex systems						
	Scientific working						
Specialisation Socioinformatics	In this section, students deepen their knowledge and competences in the research field of Socioinformatics. Modules of up to 12 CP can be chosen from the following departments:						
	Computer Science						
	Social Sciences						
	Business Studies and Economics						
Final assignment	Master's thesis						

- (2) The study program takes place according to an individual examination plan (§11 Section 3, No. 3), which must be approved by the examination board. Details are regulated in Appendix 1. Students must achieve at least 120 credit points (CP) within the scope of the Master's programme. Students usually achieve 30 CP per semester. The Master's examination consists of the following parts:
  - 1. In the Master's course Computer Science
    - a) Not applicable.
    - b) Compulsory elective modules summing up to at least 56 credit points: at least 8 credit points, respectively, in the sections Theoretical Computer Science and Formal Foundations, and at least 40 credit points in Specialisations 1 and 2.

- c) Elective modules up to a maximum of 34 credit points.
- d) Not applicable.
- e) Master's thesis of 30 credit points.

Details are regulated in Appendix 1.1.

- 2. In the Master's course Socioinformatics
  - a) Compulsory modules up to a total of 46-49 credit points.
  - b) Compulsory elective modules up to a total of 32-38 credit points.
  - c) Elective modules up to a total of 12 credit points.
  - d) Not applicable.
  - e) Master's thesis up to a total of 30 credit points.

Details are regulated in Appendix 1.2.

- (3) Modules consist of one or more self-contained classes which are coordinated with regard to subject matter and timing (e.g. lectures, work placements, seminars, laboratory practicals, exercise courses etc.) and include periods of private study. The modules also include practical periods, project work and the final paper, with the associated colloquium. The contents of a module are to be calculated so that they can generally be taught within one or two semesters. The department and the cooperating institutions ensure that the courses required for each module are offered. There are three kinds of modules:
  - 3. Compulsory modules: These must be taken by all students of a course of study or field of study without there being any possibility of choosing the courses within the module. The corresponding coursework and examination must be passed.
  - 4. Compulsory elective modules: The students may choose one or more modules within a thematically limited area and have to pass these modules. Within a compulsory elective module, this also applies accordingly for compulsory elective courses. Mandatory modules in which there is a choice with regard to courses are also regarded as compulsory elective modules. A compulsory elective module is deemed to be chosen when the student registers (§ 11) for the module examination or the first examination for the module part or participates in a course of study which is part of that module.
  - 5. Elective modules: Students have a free choice generally within a defined list of modules or courses and can replace the module with another module if they don't pass, § 11 Section 3, No.3.
  - 6. Credit points (CP) are awarded for every module completed successfully. The points correspond to the approximate amount of time that students generally require to attend all courses of the module, for the preparation and follow-up of the teaching content, the completion of coursework in accordance with Section 6 if applicable, preparation for examinations, the sitting of the module examination, the vocational work placements and the Master's thesis as well as all other work. The criteria for the allocation of credit points correspond to the European Credit Transfer and Accumulation System (ECTS).

- One credit point (CP) corresponds to a workload of approximately 30 hours, allowing for an average workload of 900 hours per semester.
- 7. A module is completed successfully when the student has passed the corresponding coursework and examinations in accordance with Appendix 1. If academic achievements are required to pass a module, this must be indicated in Appendix 1.
- 8. Coursework is primarily to monitor individual performance; its marks are not included in the module grade. Academic achievements may be linked to the regular and active participation in classes. An academic achievement is deemed to have been achieved if the student gets a mark of at least "passed" or "adequate" (grade 4.0) in accordance with § 17 Section 1. Such performance assessments may comprise several parts and consist primarily of written tests, oral examinations, reports, portfolios, colloquia, presentations, practical exercises, course attendance certificates, excursions and term papers. Details are regulated in Appendix 1; details can be found in the module guide and degree programme. If several alternative forms of performance assessments are provided for, the class lecturer will announce the type and duration of the performance assessments when the course begins at the latest. If the students fail any performance assessments, they should repeat them as soon as possible.
- 9. Credit points for modules which haven't been completed yet will only be certified in justified individual cases. A justified individual case is for example a certificate for transfer purposes, an application for vocational training or course guidance. In such cases, the performance record should at least include the name of the participating student, the precise name of the course and module, the specification of the semester in which the course was held, the number of credit points and the result of the performance assessment.

### § 6 Approval of study periods, coursework and examinations

- (1) Periods of study, coursework and examinations/examined assignments which have been completed on courses at the Technische Universität Kaiserslautern or at other state or state-recognised universities in Germany or abroad will be recognised, provided that the skills and learning outcomes achieved do not differ substantially in terms of content, qualification level and profile from the course for which credit is to be given. An overall assessment must be made with regard to the significance of the performances for the achievement of the objectives of the degree course and the purpose of the Master's examination. The burden of proof for the assertion of substantial differences lies with the Technische Universität Kaiserslautern. In the event of the recognition of coursework and examinations/examined assignments which have been completed outside Germany, the equivalence agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs (KMK) and the German Rectors' Conference must be taken into consideration, as well as agreements within the framework of university cooperation agreements.
- (2) Section 1 applies accordingly for periods of study, coursework and examinations on state-recognised distance learning courses and for multimedia-based coursework and examinations. Section 1 also applies for coursework and examinations/examined assignments at other

educational institutions, especially at state or state-recognised vocational academies, as well as at universities of applied sciences, engineering colleges and officer training colleges of the former German Democratic Republic.

# (3) Not applicable

- (4) Equivalent skills and qualifications acquired outside the higher education sector will be recognised up to a maximum of half of higher education studies upon request.
- (5) If the student intends to study abroad or to undertake studies within the framework of a university cooperation with a subsequent recognition of completed coursework and examinations/examined assignments, he or she must discuss the eligibility of the recognition of coursework and examinations/examined assignments with the chairperson of the responsible examination board or with a representative of the latter (Section 11) before starting the external study visit and must generally conclude a learning agreement. The application for the recognition of coursework and examinations/examined assignments must be submitted to the Department of Examination Affairs immediately after the end of the period abroad. A retrospective recognition or substitution of coursework and examinations/examined assignments already taken at the Technische Universität Kaiserslautern is not possible.
- (6) Academic achievements which only partly correspond to the required achievements should be credited as far as possible. In such a case it is determined which additional achievements must be completed, in which form, within which period of time and with which options for repeating them (recognition conditions).
- (7) Failed comparable examinations/examined assignments on a course at a university in Germany will be counted as failed attempts towards the permitted number of resits. At the request of the student, failed comparable examinations for compulsory elective or elective modules will not be recognised, provided that it is no longer possible to repeat these failed examinations/examined assignments.
- (8) If coursework and examinations/examined assignments are recognised, grades as far as the grading systems are comparable will be carried over and included in the calculation of interim grades and the overall grade. If the grading systems are not comparable, the note "passed" will be included. The recognition of coursework and examinations will be indicated in the report.
- (9) Students must present all documents necessary for the recognition of coursework and examinations/examined assignments immediately. Before starting the course, these must be presented to the Department of Student Affairs, together with the application for admission or enrolment or in the application for a course transfer. After starting the course, these must be submitted to the Department of Examination Affairs. A retrospective recognition or substitution of coursework and examinations/examined assignments already taken at the Technische Universität Kaiserslautern is not possible.
- (10) The recognition of coursework and examinations/examined assignments in related courses takes place ex officio; in other courses it takes place upon application. The crediting of unsuccessful attempts in accordance with Section 7 will be done ex officio.

(11) The examination board is responsible for the recognition of coursework and examinations/examined assignments. It may delegate the responsibility to persons appointed by it (recognition officers).

# § 7 Concerns of students in particular situations, compensation for disadvantages

- (1) The particular concerns of students with disabilities to protect their equal opportunities must be taken into consideration equally for the completion of coursework and examinations/examined assignments.
- (2) Students with disabilities can be granted compensation for their disadvantages in the form of additional working materials and resources, provided that this is necessary to establish equal opportunities. This applies to disabilities outside the abilities to be determined by the respective examination, which may adversely affect the examination result. Constitutional suffering or other suffering that lasts for an indefinite period, as well as predispositions and characteristics rooted in the personality of the examination candidate are not taken into consideration insofar as they relate to the performance to be determined by the examination. To establish equal opportunities, processing periods may be extended appropriately or the student may be permitted to take the examination in another form. The disability must be substantiated. The substantiation should be established by the presentation of a medical certificate. The application for compensation for disadvantages must be made in writing to the Department of Examination Affairs. The application will be forwarded to the examination board. The examination board makes a decision regarding the application. The application should be made no later than when the student registers for the examination.
- (3) Students who predominantly care for a child alone or who look after relatives in need of care can be exempted from regularly attending courses upon application. This is on the condition that students make up the workload corresponding to the missing hours with additional course achievements through self-study. This is determined by the class lecturer in agreement with the student. If no agreement is reached, the decision will be made by the examination board.

### § 8 Examination Board

- (1) The department council sets up an examination board for the organisation of examinations and appoints its members. The examination board performs the tasks and responsibilities assigned to it by these examination regulations. The examination board ensures that the regulations are observed and that the examination procedure is carried out properly. It takes a stand on appeals against decisions made in examination procedures. The examination board regularly reports to the faculty council about the development of study and examination times, including the actual time required to do the Master's thesis and the distribution of module grades and overall grades. The examination board also gives the responsible committee for studies and teaching suggestions and tips regarding changes to the course and associated changes to the degree plan, module guide and examination regulations.
- (2) The examination board has seven members. This includes the chairperson, vice chairperson, both of which are members from the group of university lecturers, two additional members from the group of university lecturers and one member each from the groups students, academic

staff and non-teaching staff. The term of office of the student member is one year, that of each of the other members three years. The reappointment of a member is possible. If a member leaves early, a successor will be appointed for the remaining term of office.

- (3) The members of the examination board are bound by official secrecy. If they are not public sector employees, they must be bound to secrecy by the chairperson.
- (4) The meetings of the examination board take place at least once per semester and are not public. The examination board is only quorate if more than half of its members are present. Unless it is provided for otherwise in the examination regulations, the examination board decides by simple majority. In the event of a tie, the chairperson has the casting vote.
- (5) With the consent of the chairperson of the examination board, the members of the examination board have the right to attend examinations. This right also extends to the consultation and the announcement of the examination result.
- (6) The examination procedure must be organised by the responsible department in cooperation with the examination board and the Department of Examination Affairs. The examination board appoints the examiners, if they need to be appointed, in accordance with § 9 Section 1 and sets the respective examination dates in consultation with them. The names of the examiners and the examination dates will be communicated to the Department of Examination Affairs in good time.
- (7) Negative decisions of the examination board which relate to the non-admission to examinations, recognition of coursework and examinations/examined assignments or the determination of final failure must be communicated to the students concerned immediately in writing and must be accompanied by instructions on the right to appeal.
- (8) The examination board may delegate the completion of individual tasks to the chairperson, to other members of the examination board, to members of the department or to employees of the Department of Examination Affairs with their agreement, or carry this out in a circular procedure. For questions concerning the recognition of coursework and examinations/examined assignments, the examination board may appoint recognition officers who do not have to be members of the examination board. The examination board will be supported by the Department of Examination Affairs in the completion of its tasks, provided that it is not a matter relating to the assessment of examinations. Employees of the Department of Examination Affairs may participate in meetings of the examination board in an advisory capacity.

### § 9 Examiners

(1) Examinations are held by university lecturers. The following may also be appointed as examiners: retired professors, people with post-doctoral qualifications, adjunct professors, junior professors according to § 61 Section 2a of the University Act, academic and artistic staff with tasks in accordance with § 56, Section 1, Clause 2 of the University Act, contract lecturers according to § 63 of the University Act and teaching staff with special responsibilities according to § 58 of the University Act. At the suggestion of the faculty council, honorary professors and

people with professional experience can also be appointed as examiners. Teachers at foreign universities who have equivalent qualifications to those referred to in Clauses 1 to 3 may also be appointed as examiners.

- (2) The examiners must at least have the qualification to be established by the examination or an equivalent qualification.
- (3) The examiners are bound by official secrecy. If they are not public sector employees, they must be bound to secrecy by the chairperson of the examination board.
- (4) On courses in which there are cooperation agreements with external universities, the people authorised to conduct examinations at the external universities can also be appointed as examiners. Sections 2 and 3 apply according.

# § 10 Observers, invigilators

- (1) The examiners appoint the observers. These must at least have the qualification to be established by the examination or an equivalent qualification. They take the minutes during oral examinations. They are entitled, in consultation with the examiner, to bar students from continuing the examination in the event of disruptions during an examination. The principle of reasonableness must be respected. § 9, Sections 3 and 4 apply accordingly.
- (2) The examiners appoint the invigilators. These are responsible for supervising written examinations. They are entitled, in consultation with the examiner, to bar students from continuing the examination in the event of disruptions during an examination. The principle of reasonableness must be respected. § 9, Sections 3 and 4 apply accordingly.

### Section II: Execution of the Master's examination

# § 11 Registration for, withdrawal from and admission to examinations

- (1) Students must apply for admission to the Master's examination no later than when they register for the first module examination or the first examination for the module part. The legal obligation to sit examinations is established upon admission to the Master's examination.
- (2) Registration is necessary for module examinations, examinations for module parts and for resits (see § 18). The registration for the module examinations and for the Master's thesis must be addressed to the examination board in an appropriate form and submitted to the Department of Examination Affairs. For the Master's thesis, § 16 applies. Registration has to take place via the Campus Management System, provided that the university makes this option available. The registration must take place for each semester in the form and within the deadline announced by the Department of Examination Affairs. In justified exceptional cases, an exception from this deadline may be permitted upon application to the examination board; an exception is possible if the student presents reasons to the examination board which are not his or her own, which he or she did not cause and which made it impossible for him or her to meet the deadline.

- (3) The following documents must be enclosed with the application for admission to the Master's examination, unless they were already been presented with the application for admission to studies:
- 1. a statement as to whether the student has already failed the Master's examination in the chosen course of study at a university in the Federal Republic of Germany and whether he or she is in an unfinished examination procedure at a university in the Federal Republic of Germany or abroad,
- 2. a complete certificate regarding whether and, if applicable, how often the student has already passed or failed examinations/examined assignments in a related course at a university in the Federal Republic of Germany.
- 3. an examination plan for all study and examination achievements to be completed as part of the Master's examination (in accordance with the requirements of Appendix 1) for approval by the examination board. This examination plan may be adapted at any time within the Master's programme, subject to the approval of the examination board for module examinations not yet started. § 18, Sections 6 and 7 remain unaffected.

In the declaration in accordance with No. 1, the student must assure that he or she will immediately inform the Department of Examination Affairs in writing of the start and finish of the examination procedure and of the failure to pass examinations from another course, if he or she is studying on another course simultaneously. The approval of the examination plan in accordance with No. 3 requires that the qualification objectives of the respective study programme are achieved by means of the module examinations listed in the examination plan; this does not require a schematic comparison but an integral approach.

- (4) The student can only be admitted to module examinations or examinations for module parts if he or she is enrolled on the selected course at the Technische Universität Kaiserslautern in the semester in which the examination is to be taken, in accordance with the enrolment regulations and
  - 1. is not on a leave of absence,
  - 2. has registered properly,
  - 3. has not already lost the right to examination on the selected course or on a total of two courses at a university in the Federal Republic of Germany,
  - 4. has the professional qualifications for admission to the examination laid down in these examination regulations and
  - 5. the examination is provided for in the examination plan.

If the admission requirements are met, the student is admitted to the examination upon registration. If an examination procedure from another course that has not yet been completed has a decisive influence on the requirements referred to in Clause 1, admission follows subject to reservation.

(5) If the student cannot provide evidence of the admission requirements in accordance with Section 4 No. 4 before the module examination or examination for the module part and if the necessary evidence is outside the student's sphere of influence, admission follows subject to

reservation. The result of the module examination or module part examination is only binding after the admission requirements have been confirmed to have been met.

- (6) Admission to a module or module part examination will be refused if
  - 1. the conditions laid down in Section 4 are not fulfilled.
  - 2. the student didn't register for the examination on time,
  - 3. the documents in accordance with Sections 3 and 5 are incomplete or
  - 4. the resitting of an examination is no longer permissible.

If the student is not admitted to an examination after proper registration, he or she will be informed of this decision in an appropriate form. If the student participates in the examination in the knowledge that the admission to an examination has not been granted, this examination shall be deemed not to have been taken.

- (7) Does not apply.
- (8) The student is obliged to find out when the examinations will take place. The dates of the individual examinations will be announced by the Department of Examination Affairs in good time and in an appropriate form. Oral examination dates can be announced by the examiner.
- 9) Regardless of the rules stipulated in § 19, Sections 1 and 2, the student must notify the Department of Examination Affairs personally, in writing or via the Campus Management System, of withdrawal from an examination without stating reasons within a period of one week (withdrawal deadline) prior to the examination date. In the event of a written notification, the date of the postmark is decisive.
- (10) After the end of the withdrawal period, withdrawal from the examination is only possible in justified individual cases, in accordance with the more specific provisions in § 19, Sections 1 and 2.
- (11) Does not apply.
- (12) The provision of certain minimum achievements within reasonable periods of time, form the basis for a proper continuation of the student's studies in accordance with the regulations and the degree programme. An examination is considered failed for the first time if the registration deadline set in these regulations is missed by at least two semesters. § 18 applies for the resit of the examination assessed as "failed" or "insufficient" (grade 5.0).
- (13) The deadline for registration for the Master's thesis according to § 26, Section 2, No. 7 of the University Act is the end of the sixth semester. If the first version has not been completed by the end of the eighth semester or is not considered to have been completed, the Master's thesis is deemed to be failed for the first time.
- (14) Students must register for all module examinations for the first time by the end of the registration period of the sixth semester. If this does not take place, Section 12, Clause 2 applies accordingly.

### § 12 Module examinations

- (1) Module examinations are taken during the course of study; the respective module is usually completed with the examinations. The module examination is a means for the student to prove that he or she has achieved the intended learning outcomes. The subject of the module examinations is in principle the learning objectives and contents of the courses of the respective module.
- (2) Module examinations are taken in the following forms: oral examinations according to § 13, written examinations according to § 14 or examinations according to § 15. Examination forms other than those specified in §§ 13 to 15 are permitted in accordance with Appendix 1. The provisions of §§ 13 to 15 apply accordingly.
- (3) A module examination generally consists of one examination. In a justified exceptional case, a module examination may consist of partial examinations (examination for the module part). Module and module part examinations can be made up of partial performances. The provisions of §§ 13 to 15 apply accordingly for module part examinations and partial performances. Partial performances can be divided over several dates within an examination period. The number, form and subject matters of the module examination, module part examinations and partial performances as well as the requirements for participation in these are regulated in detail in Appendix 1. The assessment of examinations/examined assignments and the formation of the module grade takes place according to § 17.
- (4) If coursework has to be completed in a module, this may need to be passed as a requirement for the admission to the module examination, if the corresponding regulations are laid down in the appendix. A conditional admission according to § 11 Section 4 remains unaffected by this. The module is only passed when all the coursework to be completed in the module and the module examination have been successfully passed.
- (5) The examination period for the winter semester is generally from 16th November until 15th May the following year and for the summer semester generally from 16th May until 15th November. As a rule, examinations should be held during the semester break. In the case of module examinations which take place annually, the resit may take place in the same examination period. Sufficient time must be allowed for exam preparation.
- (6) For modules from other courses (import modules), the modes of examination of the course to which the import module belongs generally apply. When awarding credit points, deviating regulations may be provided for if they are justified by different objectives or prerequisites depending on the course of study. Further details are regulated in Appendix 1.
- (7) Immediately after the examinations/examined assignments have been evaluated, the examiner will inform the Department of Examination Affairs of the examination results for all duly registered students.

### § 13 Oral examinations

(1) In an oral examination, the student has to answer one or more questions or tasks corresponding to the learning objectives orally.

- (2) Oral examinations are conducted by at least two examiners (panel examination) in accordance with § 9 or by one examiner in the presence of an expert observer in accordance with §§ 9 and 10.
- (3) Oral examinations are carried out as individual examinations. The examination lasts 4 minutes per credit point and can be extended by a maximum of 15 minutes. It should not however be less than 20 minutes and not more than 60 minutes. If the examination questions give rise to the necessity to include graphic or mathematical representations, these are part of the oral examination.
- (4) The oral examination is assessed by the examiners. It will take place after consulting the observer if applicable. In the event of an assessment by several examiners, the examiners agree on a grade. The result will be given to the student following the oral examination, unless the admission to the examination was conditional. If the student does not pass the examination, the reasons must be explained to him or her. The second resit of an oral examination is conducted and assessed by at least two examiners (two examiner principle).
- (5) A record must be made of the course of every oral examination. In this report, the names of the examiners, the observer and the student, as well as the name of the respective module must be recorded. The record must also indicate the start and finishing time of the examination, the main topics and the result. The record should be signed by the examiners and by the observer if one was present. It should be sent to the Department of Examination Affairs immediately after completion of the examination.
- (6) Students who want to take the same examination in a later examination period may be admitted to listen to an exam upon application, provided that the student to be examined does not object when registering for the examination. The examiners make a decision regarding such applications, which have to be submitted to the Department of Examination Affairs three weeks before the oral examination, according to the number of places available. If the examination can't be carried out properly, the audience may be asked to leave, even during the examination. Visitors to the examination will not be present during the consultation and announcement of the exam result.
- (7) At the request of the student, the Central Equal Opportunities Officer of the faculty may attend oral examinations. The Equal Opportunities Officer will not be present during the consultation and announcement of the exam result.

# § 14 Written examinations / examined assignments

- (1) During the written examinations/examined assignments, students have to accomplish one or more tasks set by the examiners in written form. Written examinations/examined assignments are completed in the form of written tests (Section 4), term papers (Section 5), portfolio work (Section 6), multimedia-based test papers (Section 7) or other forms of written examination/examined assignment. Resources may be permitted here.
- (2) The list of resources is determined by the examiners and published in an appropriate manner no later than fourteen days before the examination date.

- (3) Written examinations/examined assignments are generally assessed by one examiner. If the student is unable to repeat the examination/examined assignment in the event of failure, the examination/examined assignment (except for written tests) must be assessed by a second examiner (two examiner principle). The examiners agree upon a grade in accordance with § 17 (Section 1). The length of the assessment procedure, including the publication of the examination results should not normally exceed four weeks. A repeat of the examination in the same examination period can only take place two weeks after the publication of the examination results at the earliest.
- (4) In the event of a written examination in the form of a written test, one or more tasks assigned by the examiners must be carried out under supervision. The processing time is 15 minutes per credit point and can be extended by a maximum of 30 minutes. It should not however be less than 60 minutes and not more than 180 minutes. Details are regulated in Appendix 1.
- (5) In the written examination in the form of a term paper students have to work on a topic set by the examiners in writing using the common methods for the subject in a limited period of time. The topic should be chosen in such a way that the total time required to deal with it corresponds to the student workload provided for in the module in terms of § 5, Section 4. Details are specified in Appendix 1. The examiners keep a record of when the term paper was handed out and inform the Department of Examination Affairs about this date, as well as the submission deadline. The examination board can set deadlines for the submission of the term papers. A term paper can also be carried out as group work with the consent of the examiners. In this case, the contribution of the individual students to be assessed must be clearly distinct and assessable in its own right as an individual examined assignment on the basis of the indication of sections, numbers of pages or other objective criteria.
- (6) A written examination in the form of a portfolio is the independent composition, selection, compilation and justification of the selection of a limited number of written documents about the topics of a module and products produced in the corresponding courses. A portfolio consists of an introduction, a collection of documents and a review. A portfolio can be submitted in digital form with the consent of the examiners. The topic should be chosen in such a way that the total time required to deal with it corresponds to a student workload (in terms of § 5, Section 4) of two to four weeks (fulltime). Details are specified in Appendix 1.
- (7) Written examinations in the form of multimedia-based examination tasks ("e-examinations") are usually written by two examiners. They consist of free text tasks, cloze texts and assignment tasks. Before multimedia-based examinations are conducted, it is necessary to ensure that the electronic data can be clearly identified and can be unmistakeably and permanently assigned to the students. The examination must be held in the presence of a qualified person (minute taker). A record must be made of the course of the examination, including at least the names of the minute taker and the students, the start and end of the examination and any special incidents. In accordance with the provisions of § 24, students must be given the opportunity to inspect the multimedia-based examination and their result. The task, including a model solution, the evaluation scheme, the individual examination results and the record must be archived.

### § 15 Practical and other examinations

Sections 1 to 7 are not applicable.

(8) Examinations can also be held as partial performances in the form of lectures, presentations or similar. The evaluation is done by an examiner. §13 Section 4 applies accordingly.

# § 16 Master's thesis and colloquium

- (1) The module examination of the module is divided into a Master's thesis, which is completed in writing and a partial performance in the form of a colloquium. The aim of the Master's thesis is to demonstrate that the student is capable of successfully working on a task independently, within a given period of time using scientific methods and to present it in writing. The purpose of the colloquium is for the student to show his or her ability to present the results of the Master's thesis orally in a coherent form.
- (2) The Master's thesis is issued and supervised by university lecturers (supervisors). Examiners in accordance with § 9 can also be appointed as supervisors by the examination board, provided that they are academically active in the subject area selected by the student. If the student is unable to find a supervisor, the examination board will provide a supervisor at the student's request. The corresponding application must be made no later than one month before the expiry of the period specified in § 11 Section 13 and is regarded as a registration in terms of § 11.
- (3) Regardless of the rules stipulated in § 11, Section 13, only students who have acquired at least 60 CP may be admitted to the Master's thesis; in justified exceptional cases, the examination board may deviate from this at the request of the student.
- (4) Before the Master's thesis is handed out, the student must present the supervisor with a certificate issued by the Department of Examination Affairs which certifies that the requirements in accordance with Section 3 have been met. The supervisor will complete the certificate with the topic of the Master's thesis and the date of issue, sign it and forward it to the Department of Examination Affairs immediately.
- (5) The period from the subject being given to the student until the submission of the Master's thesis is six months. The topic, task and scope of the Master's thesis and the preparation time for the colloquium should be limited by the supervisor so that the workload for the student of 900 hours and the deadline for doing the work can be met. The student has a right to propose the topic of the Master's thesis. In special cases, the time given to work on the thesis may be extended by up to three months by the chairperson of the examination board with the consent of the supervisor at the written request of the student. The application should be handed into the Department of Examination Affairs no later than four weeks before the submission deadline. The consent of the supervisor should be enclosed with the application.
- (6) The subject of the Master's thesis can only be returned once and only within the first two weeks of the period given to work on the thesis. In this case, the Master's thesis is deemed not to have been undertaken. The student must apply for a new subject to be set within four weeks of giving back the subject. The chairperson of the examination board must ensure that a new subject is issued as quickly as possible. The examination board can withdraw the Master's thesis

topic if the time given to work on it is exceeded by more than six months. Clauses 2 and 3 apply accordingly in such cases.

### (7) Not applicable.

The Master's thesis may be written in German or English. The title must be provided in both German and English. With the consent of the examination board, the Master's thesis may also be written in a different language providing the following requirements are met:

- 1. The student must have a good enough command of the chosen language.
- 2. The elected supervisor must have sufficient language qualifications in the chosen language.
- 3. There must be the possibility to appoint a second assessor in accordance with Section 11, Clause 2 with sufficient linguistic qualifications in the chosen language.

The application to write the Master's thesis in a foreign language in accordance with Clause 2 must be submitted to the examination board in good time before the subject is issued, specifying the supervisor. In the cases referred to in Clause 2, a summary in German or English must be enclosed with the Master's thesis.

- (9) The Master's thesis can be carried out in an institution outside the faculty with the consent of the examination board. The requirement for this is that it is supervised there by somebody who has at least the qualifications of a supervisor in accordance with Section 2 and that this is done in cooperation with a member of the faculty who is entitled to supervise the thesis.
- (10) The student must submit 3 copies of the Master's thesis to the Department of Examination affairs by the deadline in printed and bound form, as well as in an appropriate electronic form (§ 19 Section 6) or electronically via the platform provided. The handing in date has to be recorded. When handing in the Master's thesis, the student must give written assurance that he or she wrote the thesis independently and did not use any sources or aids other than those stated. If the Master's thesis is not handed in on time in accordance with Section 5 or not in the form specified in Clause 1, it will be assessed as "insufficient" (grade: 5.0). The handing in date is the also the date of the module examination.
- (11) The Master's thesis is assessed by the supervisor (first assessor) and generally by a second examiner (second assessor) in accordance with § 17 Section 1, Clause 2. The examination board appoints the second assessor. At least one of the assessors should be a university lecturer at the Technische Universität Kaiserslautern.
- (12) The assessors draw up reports for the final evaluation of the Master's thesis. The reports contain in particular details about the originality of the handling of the topic, the results achieved, the didactic structure of the Master's thesis and the holding of the colloquium (Section 14). If there are serious doubts as to whether the Master's thesis was written independently, the examination board will hear the student and the assessors and decide whether there has been a deception in terms of § 19 Section 3. If the assessors give the same grade, this is the grade of the Master's thesis. If the assessments differ but are equal to or better than 4.0, the assessments will be averaged and adapted to the grading scale in accordance with § 17 Section 1, whereby the mean value is rounded to the nearest grade on the scale. If the mean value is an equal distance from two grades on the scale, it will be rounded to the next

best grade. If the assessments differ and one of them is 5.0, the chairperson of the examination board will try to reach an agreement between the two assessors on a common evaluation. If this is not successful, the chairperson will arrange for an additional examiner to assess the thesis. In this case, the grade corresponds to the median of the three evaluations. Grade 5.0 can only be given in the event of an assessment by at least two examiners. The assessment procedure should not generally exceed four weeks.

- (13) If the Master's thesis module is assessed with grade 5.0 for the first time or if the Master's thesis is not handed in on time, the student will be informed of this in writing by the examination board. After receipt of the letter, the student must apply to the examination board for a new subject to be issued within four weeks. If no application is made or if the requirements of Paragraph 3 are not met at the time of application, the Master's thesis module will be regarded as finally failed. The subject for the second Master's thesis may only be given back in accordance with Section 6 if the student did not make use of this option for the first Master's thesis. It is not possible to repeat the Master's thesis module a second time.
- (14) The colloquium is a partial performance of the written Master's thesis and should take place no later than four weeks after the written Master's thesis has been handed in. The colloquium is conducted by the assessors. It consists of a presentation (20 minutes) and a technical discussion (up to 45 minutes) on the topic of the Master's thesis.

# § 17 Evaluation and grading, passing and failing of examinations and coursework

(1) For the assessment of ungraded coursework and examinations/examined assignments, the results "passed" and "failed" must be used. For the assessment of individual, graded coursework and examinations/examined assignments, including the Master's thesis and examinations that require the "two examiner principle", the following grades must be used:

```
1.0: 1.3
                very good
                                 an excellent performance,
1.7; 2.0; 2.3 =
                                 a performance that is significantly above the average
                good
                                  requirements,
2.7; 3.0; 3.3 =
                satisfactory =
                                 a performance
                                                    that corresponds
                                                                        to
                                                                             the
                                                                                  average
                                 requirements,
3.7: 4.0
                 adequate
                                 a performance that satisfies the requirements despite
                                 its deficiencies.
5.0
                 insufficient =
                                 a performance that does not satisfy the requirements
                                 due to considerable deficiencies.
```

Coursework and examination/examined assignments are passed if they have been assessed as "passed" or with at least "adequate" (4.0).

(2) If a module examination consists of one examination/examined assignment, the assessment of this is at the same time the module mark. If the module examination consists of several examinations/examined assignments (module part examinations), each mandatory examination/examined assignment must be passed in its own right and assessed in accordance with Section 1. In these cases, the module grade is calculated as the arithmetical mean of the

grades for the individual module part examinations; different arrangements can be made in Appendix 1.

The module grade is given in case of an average of:

```
up to and including 1.5 = very good,
over 1.5 up to and including 2.5 = good,
over 2.5 up to and including 3.5 = satisfactory,
over 3.5 up to and including 4.0 = adequate,
over 4.0 = insufficient.
```

Only the first decimal place after the comma is taken into consideration for the formation of the module grades. All further decimal places are deleted without rounding.

- (3) The grade of the Master's thesis module results from § 16 Sections 11-14.
- (4) The grade of the Master's examination is the weighted mean of the grades for the modules with the weights specified in Appendix 1. Ungraded modules or modules assessed with the note "passed" are not taken into consideration in the calculation. In the calculation of the grade of the Master's examination, only the first decimal place after the comma is taken into consideration. All further decimal places are deleted without rounding. The grade of the Master's examination with an average:

```
up to and including 1.5 = very good,
over 1.5 up to and including 2.5 = good,
over 2.5 up to and including 3.5 = satisfactory,
over 3.5 up to and including 4.0 = adequate,
over 4.0 = insufficient.
```

- (5) In order to compare the different grading scales, the university will publish a statistical distribution of the grades of a course in accordance with the currently valid provisions of the ECTS guidelines in an appropriate manner.
- (6) The announcement of the grade for coursework or an examination achievement is an administrative act as defined by § 35 VwVfG.

# § 18 Repeating module examinations and coursework

- (1) Passed coursework and examination achievements cannot be repeated.
- (2) Failed written module or module part examinations may be repeated twice, whereby the first resit must be taken within two and the second resit within four consecutive examination periods (§ 12 Section 5) following the examination period in which the first examination attempt was undertaken. This also applies for written module or module part examinations that are offered annually and only once or twice in the examination period concerned. If the period for repeating an examination is missed, the missed examination will be regarded as failed. Students are strongly advised to have a consultation with the responsible subject student advisor before registering for the second resit of a module or module part examination.
- (3) In the event of a second resit of a written examination in the form of a written test, the assessment "insufficient" (grade 5.0) is only to be given after a supplementary oral examination.

In the supplementary oral examination, a decision is only made regarding whether the student should get the grade 4.0 or lower. The supplementary oral examination must be conducted as an individual oral examination by at least two examiners and should last between 15 and 30 minutes. It should be carried out as soon as possible. The students will be permitted to view the assessed written examination work before the supplementary oral examination is conducted. The examiners will notify students of the examination dates and the registration deadline for the supplementary oral examination no later than when the examination results are published. Students must register for the supplementary oral examination by the specified deadline, otherwise the examination will be deemed finally failed. A supplementary oral examination is not possible if the student did not participate in the resit of the examination, declared renunciation in accordance with § 19 Section 8 before the date of the supplementary oral examination or if the assessment "insufficient" is based on § 19 Section 3.

- (4) Failed oral module or module part examinations may be repeated twice. Section 2 applies accordingly.
- (5) Not applicable.
- (6) A failed compulsory elective module examination in accordance with § 5 Section 3 No. 2 may be replaced with another compulsory elective module examination with the approval of the examination board after amendment of the examination plan and offset against the permissible number of repetition options.
- (7) A failed elective module examination may be replaced by another elective module examination after amendment of the examination plan without counting towards the permitted number of opportunities for resits. A change back is not possible.
- (8) If the result of an examination leads to a final failure (§ 21 Section 2), the student may be admitted to the examination again in justified exceptional cases (e.g. family bereavements, serious illness of close relatives). In order to do this, the student must complete a substantiated hardship application with appropriate evidence to the examination board via the Department of Examination Affairs. The examination board makes the decision regarding the hardship application. A successful hardship application allows the student to have another final attempt at passing the examination that was failed in the final regular resit attempt. In such cases, the regular second resit will be regarded as not having been taken.
- (9) Taking resits at another university within the framework of a university cooperation is only possible with the prior written consent of the examination board or the accreditation officer whether by a learning agreement or in another appropriate form.
- (10) The repetition of failed coursework is not limited.
- (11) For the repetition of the Master's thesis, §16 Section 13 applies.

### § 19 Absence, withdrawal, cheating, waiver

(1) An examination/examined assignment will be assessed as "insufficient" (grade 5.0) or "failed" if the student:

- 1. misses an examination date considered binding due to registration,
- 2. withdraws from an examination after it has started,
- 3. has missed the binding registration period according to the rules for the first attempt at an examination by at least two semesters,
- 4. does not adhere to the processing time for the completion of the examination/examined assignment, or
- 5. in the event of a written module examination, does not complete it within the specified time without good cause.
- (2) The valid reasons given for absence or withdrawal according to Section 1 must be announced to the Department of Examination Affairs immediately in writing, and must be substantiated. If the Department of Examination Affairs acknowledges the reasons in consultation with the chairperson of the examination board, the absence or withdrawal will be treated as a withdrawal on time according to § 11 Section 9. If the absence or withdrawal takes place on account of the illness of the student, evidence must be provided of this in the form of a medical certificate. The student must present the medical certificate to the Department of Examination Affairs immediately without any culpable delay. The medical certificate may also be scanned and sent by e-mail or fax in order to observe the deadline. In such cases, the original must be submitted immediately afterwards. If it is the first time that the student is unable to attend the examination, a simple medical certificate that shows the inability to take the examination is usually sufficient. If this happens again, (this is the case if the student is sick again for the same examination), the student may be requested to present a qualified medical certificate certifying the time of the medical treatment, type, extent and duration of the illness as well as its effects on the student's ability to take the examination, or an official medical certificate without this information. The illness of the student is equivalent to the illness of a child or relative in need of care who is predominantly cared for by the student.
- (3) If the student attempts to influence the result of a piece of coursework or an examination/examined assignment through cheating or the use of unauthorised resources, the coursework or examination/examined assignment will be assessed as "insufficient" (grade: 5.0) or "failed". A student who disrupts the proper course of the examination can be barred from continuing the examination by the examiner, the observer and the invigilators after a warning. In this case, the examination in question will be assessed as "insufficient" (grade: 5.0) or "failed". In serious cases, the examination board may bar the student from completing other examinations/examined assignments in the respective course.
- (4) The student must be informed of negative decisions in writing immediately. Negative decisions must be justified and information on legal remedies must be provided. The student must be given the opportunity to comment before a decision is made.
- (5) In the case of written examined assignments (apart from written tests), the student must submit a written declaration when handing in his or her work that he or she did the work independently and did not use any sources and resources other than those indicated. If the declaration turns out to be untrue or if there is another attempt at cheating or infringement of the regulations, Sections 3 and 4 apply accordingly.

- (6) Examiners are entitled to also use electronic media to check written assignments (apart from written tests) for cheating and attempts at cheating. For this purpose, the student may be requested to present an appropriate electronic version of the work within a reasonable period of time. The examination board determines which file formats are suitable.
- (7) The provisions of Sections 1 to 6 apply accordingly for coursework.
- (8) Before the last opportunity for a resit and no later than the end of deregistration period, the student can declare to the examination board in writing that he or she wishes to withdraw from the entire examination procedure of the Master's examination and thus waive the continuation of the legal obligation to sit examinations. The student may then no longer participate in examinations in this course of studies. Otherwise, the legal obligation to sit examinations will continue and the student must finish the examination procedure. The waiver may not be revoked once it has become effective. A re-enrolment on the same course at Technische Universität Kaiserslautern is not possible on account of the validity of the waiver.

### § 20 Extension and suspension of deadlines

- (1) For the observance of deadlines (registration and resit deadlines), extensions and interruptions of periods of study will not be taken into consideration insofar as they are a result of:
  - 1. participation in statutory committees of a university, a student body or a Studierendenwerk that are provided for by law or the charter,
  - 2. illness, a disability, or other reasons for which the student is not responsible,
  - 3. pregnancy or bringing up a child. In these cases, it must be made possible to at least claim the statutory maternity leave and the periods of parental leave in accordance with the German Parental Allowance and Parental Leave Act,
  - 4. looking after a relative who is in need of care,
  - 5. a relevant period of study abroad in accordance with regulations of up to two semesters, or
  - 6. operational matters in the context of working alongside studying, job integrated or dual study programmes.

The student must provide the appropriate evidence and present it to the Department of Examination Affairs.

# § 21 Passing the Master's examination, report, certificate, Diploma Supplement

- (1) The Master's examination is considered passed when all the coursework and examinations have been passed. An overall grade in accordance with § 17 Section 4 will be awarded for the passed Master's examination.
- (2) If a mandatory examination/examined assignment can no longer be completed or repeated, the Master's examination will be finally failed. The chairperson of the examination board will

issue a written notification to the student which must be accompanied by instructions on how to appeal.

- (3) If the student passes the Master's examination, he or she will receive a report in German and English, usually within eight weeks. The report will contain the name of the course, the overall grade, the mandatory modules with the module grades and credit points and the title of the Master's thesis. Additional work in accordance with § 23 in the form of completed modules may be shown on the certificate upon application by the student. The written application must be sent to the Department of Examination Affairs no later than the day on which the last compulsory piece of work is completed. If a completed module examination taken at another university is taken into account, this will be identified on the report by stating the university.
- (4) The report bears the date on which the final mandatory piece of coursework or examined assignment/examination was completed, is signed by the chairperson of the examination board and bears the seal of the federal state.
- (5) After passing the Master's examination, the graduate will receive a Master's certificate together with the report in both German and English. The certificate shows the academic degree awarded in accordance with § 1 Section 4 and bears the date of the report. It is signed by the chairperson of the examination board and the dean of the faculty and bears the seal of the federal state.
- (6) In addition, the graduate will receive a Diploma Supplement (DS) in English in accordance with the "Diploma Supplement Model" of the European Union/European Council/UNESCO. It bears the date of the report, is signed by the chairperson of the examination board and bears the seal of the federal state. The Diploma Supplement contains in particular information about the university, the type of qualification, the study programme, the admission requirements, the study requirements and the course of studies as well as information about the German higher education system. The text agreed between the Conference of the Ministers of Education and Cultural Affairs and the German Rectors' Conference must be used as an illustration of the national education system (DS Section 8) in its respective valid version.
- (7) Students who have finally failed the Master's examination, change courses or leave the university before finishing the Master's examination will receive a certificate summarising the coursework and examinations/examined assignments completed upon request.

### § 22 Invalidity of the Master's examination

- (1) If the student cheated in a piece of coursework or an examination/examined assignment and this fact only becomes known after the report has been issued, the examination board may retrospectively correct the grades of those pieces of coursework or examinations/examined assignments in which the student cheated accordingly and declare the examination or the coursework to be failed in part or in full. The incorrect examination certificates, the Diploma Supplement, the Master's certificates and, if applicable, the corresponding proof of study must be collected and reissued if necessary.
- (2) If the requirements for admission to an examination were not fulfilled without the student intending to cheat and this fact only comes to light after the report has been issued, this shortcoming will be made good again by passing the examination. If the student wilfully and

unjustifiably obtained admission, the examination board will make a decision. The student must be given the opportunity to comment before a decision is made.

### § 23 Additional achievements

According to the available capacity, students may do additional coursework and examinations/examined assignments from Master's courses (additional work) until the end of the examination period of the semester in which they passed the Master's examination. In the case of additional examinations/examined assignments, the approval of the examination board must be obtained. The relevant application must be submitted to the examination board in good time via the Department of Examination Affairs which makes the decision. If additional work is not passed it does not have to be repeated. § 11 applies accordingly.

# Section III: Final provisions

# § 24 Right to information

- (1) The student may obtain information about partial results before the completion of the Master's examination and view his or her examination file after the completion of the Master's examination.
- (2) Upon written application, the student must be granted access to his or her examinations/examined assignments with the exception of written examinations (see Section 3), the related reports of the examiners as well as to the records of oral examinations after the results have been announced. The application for a viewing must be made to the Department of Examination Affairs no later than one month after the examination result has been announced. The chairperson of the examination board will determine the time and place of the viewing in consultation with the examiners.
- (3) In the case of written tests, students will be given the opportunity to view their assessed examination work shortly after the examination results have been announced. The examiners will determine the time and place of the viewing and will announce these in good time in an appropriate manner.
- (4) If students are unable to view their work at the agreed time in accordance with Sections 2 or 4, they will be given the opportunity to view their work on another date upon written and justified request. This application must be made to the Department of Examination Affairs no later than one month after the viewing date has been announced.
- (5) Within one year of the announcement of the assessment of coursework or examinations, the student will be granted access to his/her examination documents, including the Master's thesis and the corresponding opinions of the assessors, upon written application. After the end of this year, it is no longer possible for students to view their work. The application must be made to the Department of Examination Affairs. The chairperson of the examination board will determine the time and place of the viewing.

# § 25 Scope of regulations, date of effect, transition regulations

These regulations enter into force on the day after their publication in the official journal of the Technische Universität Kaiserslautern and apply for the first time to students who

- 1. enroll for the course of studies Computer Science in the winter semester 2018/2019.
- 2. enroll for the course of studies Socioinformatics in the winter semester 2019/2020.

Students who enrolled in the Master's programme Computer Science before the winter semester 2018/19 and students who enrolled in the Master's programme Socioinformatics before the winter semester 2019/2020 may apply to the examination board to change to these examination regulations.

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# Appendix 1.1 Compulsory elective and elective modules in the Master's degree course Computer Science

Note: Taking into consideration the "Rules for the Accreditation of Study Programmes and for System Accreditation" and the "Common Structural Guidelines for the Federal States for the Accreditation of Bachelor's and Master's courses" and the notes for the interpretation of these in the respective valid version, the examination board may decide, in justified cases, that a module examination will be taken entirely or in part in a form other than the examination type and form specified in the following appendix for the respective semester. This doesn't apply to import modules (§ 12 Section 6) and the module Master's thesis. This decision must be announced at least four weeks before a module or module part examination is carried out, no later than four weeks before the end of the lecture period, indicating the examination arrangements and the permitted resources in an appropriate manner. The modules for which there is a choice with respect to the type of examination should be indicated below and should show two types of examination. The examiner will announce the type of examination at the beginning of the course.

Graduates of the Master's course Computer Science should get to know the current level of research in at least two areas of computer science and acquire the competence to further develop this level of research independently. In a freely definable supplementary block, students can select modules from further computer science specialization topics or modules from other courses of study according to their individual planning. The first possibility should enable students to broaden their knowledge of computer science. The second possibility should serve to acquire skills and competences in the application of computer science.

The degree takes place according to an individual examination schedule (§11 Section 3, No. 3), which must be approved by the examination board. The examination board may delegate the approval of the examination plan to a mentor (university lecturer in the Department of Computer Science). Compulsory elective and elective modules should be included according to the following tables.

### **Achievements required:**

The Master's course Computer Science is divided into the following sections with a total of at least 120 CP.

In the sections 'Computer Science Theory', 'Formal Fundamentals', 'Specialization 1', 'Specialization 2' and the 'Supplementary Block', successfully examined modules at Master's level of at least 56 credits are required.

Modules "at Master level" are all modules marked accordingly in the module guide as well as modules listed in the Master's degree programme

- **28 CP Computer Science Theory:** The purpose of this section is to study abstraction methods and formal methods of computer science independently of a chosen specialization. The skills learnt are helpful in all computer science specializations. In contrast to the bachelor's degree in computer science, modules that bring students up to date with the current level of research should be selected.
- **28 CP Formal Fundamentals:** This section has similar aims with regard to skills and competences, but in terms of content it may include other basics of mathematics/engineering which are fundamental to a specialization or application of computer science, in addition to computer science theory contents.
- ≥28 CP Specialization 1: In this section students gain in-depth knowledge in a field of computer science, enabling them to further develop the level of research in this area. In this specialization at least one project and at least one seminar must be chosen. Successfully examined modules of at least 16 credits are required.

- **\gequiv \gequiv 2:** This specialization has the same goals as specialization 1 but the selection of seminars and projects is optional. Successfully examined modules of at least 12 credits are required. Specialization 2 must be different from Specialization 1.
- Maximum 34 CP Supplementary Block: This section is planned by the students in consultation with a mentor (university lecturer in the Department of Computer Science). This elective area can have different goals, including the option to take modules from further computer science specialization subjects or modules from other degree courses. In the second case the focus should be on an application of computer science. In addition a maximum of 8 CP can be taken in modules which help develop interdisciplinary skills (personal development, social/ethical aspects of computer science, language skills, etc.). There isn't a limited choice of modules here because this section should be handled very flexibly and individually.
- **30 CP Master's thesis:** With the Master's thesis students show that they can further develop the level of research in computer science. According to this, in the Master's thesis students have to work on a task which deals with a current question in the field of computer science. After classifying this question in the level of research, it should be answered either with analytical or experimental results. The question and the results should be presented in a colloquium.

The faculty council of the Department of Computer Science decides which modules can be used in which sections (depending on the chosen specializations, if applicable). These are announced by corresponding entries in the degree programme. In addition to the conditions listed there, the following restrictions must be observed when preparing the examination schedule:

- If applications of computer science are selected in the Supplementary Block, this section may contain a maximum of 10 CP of modules from bachelor courses in other subject areas.
- In general modules which were taken and examined in the Bachelor's degree Computer Science can't be taken again in the Master's degree.

  This applies in particular to modules in the area "Fundamentals" in the Specializations, which can generally already be taken in the Bachelor degree.
- For most sections of the degree programme, only a lower limit of credit points is specified. An upper limit arises implicitly as a result of the lower limits of the other sections and the total number of 120 CP for the Master's degree which shouldn't be exceeded or if it is exceeded then only slightly.

Module name/module parts	СР	Import module	Weight	Course achievement (in accordance with § 5 Sections 4 and 6)	Prerequisite for examination	Partial performa nce	Type of examination
Section: Computer Science Theory	≥8						
Compulsory elective modules							
Choice of modules of at least 8 CP for lectures and exercise courses in Computer Science Theory.	≥8	no	CP <sup>1</sup>	depends on choice	depends on choice <sup>2</sup>	no	depends on choice <sup>3</sup>
Section: Formal Fundamentals	≥8						
Compulsory elective modules							
Choice of modules of at least 8 CP for lectures or lectures with exercise courses in Computer Science Theory or other mathematical/engineering fundamental areas	≥8	depends on choice	CP <sup>1</sup>	depends on choice	depends on choice <sup>2</sup>	depends on choice	depends on choice <sup>3</sup>
Section: Specialization 1	≥28						
Compulsory elective modules							
Choice of modules of at least 16 CP for lectures (or lectures with exercise courses) from the chosen Specialization 1	≥16	no	CP <sup>1</sup>	depends on choice	depends on choice <sup>2</sup>	no	depends on choice <sup>3</sup>
Choice of a seminar (4 CP) from the seminar area Specialization.	4	no	0	Presentation and written report	-	no	-
Choice of a project (8 CP) from the project area Specialization.	8	no	0	Presentation	-	no	-

Module name/module parts	СР	Import module	Weight	Course achievement (in accordance with § 5 Sections 4 and 6)	Prerequisite for examination	Partial performa nce	Type of examination
Section: Specialization 2	≥12						
Compulsory elective modules							
Choice of modules of at least 12 CP for lectures (or lectures with exercise courses) from the chosen Specialization 2	≥12	no	CP <sup>1</sup>	depends on choice	depends on choice <sup>2</sup>	no	depends on choice <sup>3</sup>
Section: Supplementary Block	4 bis 34						
Elective modules							
Choice of modules from other Computer Science Specializations or other subject areas	depends on choice	depends on choice	LP <sup>1</sup>	depends on choice	depends on choice <sup>2</sup>	depends on choice	depends on choice <sup>3</sup>
Choice of modules which help to develop interdisciplinary skills	4-8	depends on choice	0	depends on choice	depends on choice	depends on choice	depends on choice <sup>3</sup>
Section: Thesis	30						
Master's thesis	30	no	30	no	no	Colloqui um	§ 16

- 1) The grades of the module examinations are weighted with the credit points earned in the respective module and included in the calculation of the overall grade.
- For lectures with exercise courses, successful participation in the exercise courses is a prerequisite for the exam. Information about the exercise courses on offer and the necessity of successful participation as a prerequisite for the chosen lecture can be found in the module guide.

The type of examination for each individual module is specified in the module guide. If the module guide entry allows for several examination types, the examination type will be determined at the latest when lectures begin.

# **Sections "Computer Science Theory and Formal Fundamentals"**

In the section "Computer Science Theory" modules of at least 8 CP should be selected, the subject of which is the handling of formal systems. A list of possible modules can be found in the degree plan.

In the section "Formal Fundamentals" modules from the following subsections can be chosen:

- Computer Science Theory
- Mathematics
- Theory of Applications

# **Specializations in Computer Science**

The choice of Specializations in Computer Science is structured as follows. For each specialization thematically related modules can be divided into subsections. In the subsections, it may be required that a minimum number of credit points must be earned. Both individual modules and subsections can be marked as compulsory modules or compulsory sections and in these cases must be completed by the students of this specialization. A subsection is considered to have been completed if a minimum number of credit points from this section have been completed. Details about compulsory modules and compulsory sections as well as the minimum number of credit points for the sections can be found in the degree plan.

The following specializations with subsections can be chosen as Specialization 1 or Specialization 2.

- 1. Algorithms and deduction
  - a. Foundations
  - b. Algorithms
  - c. Program semantics and deduction
  - d. Seminars
  - e. Projects
- 2. Software engineering
  - a. Foundations
  - b. Software processes
  - c. Safe and dependable systems
  - d. Programming methodology and languages
  - e. Seminars
  - f. Projects

- 3. Distributed and networked systems
  - a. Foundations
  - b. Communication protocols
  - c. Performance and security analysis
  - d. Seminars
  - e. Projects
- 4. Embedded systems and robotics
  - a. Foundations
  - b. Robotics
  - c. Model-based design
  - d. System architecture
  - e. Seminars
  - f. Projects
- 5. Visualization and scientific computing
  - a. Foundations
  - b. Geometric modelling
  - c. Scientific Visualization
  - d. Scientific computing
  - e. High-performance computing
  - f. Seminars
  - g. Projects

- 6. Information systems
  - a. Foundations
  - b. Distributed information systems
  - c. Modelling, search and mining
  - d. Seminars
  - e. Projects
- 7. Intelligent systems
  - a. Foundations
  - b. Models of complex systems
  - c. Data analysis and machine learning
  - d. Seminars
  - e. Projects

Appendix 1.2 (Does not apply for the Master's degree course Computer Science)

# Appendix 2: Aptitude assessment procedure

- (1) The aptitude assessment procedure described here serves to determine the professional competence of the applicant for admission to the Master's degree courses "Computer Science" and "Socioinformatics".
- (2) The aptitude assessment procedure is carried out by the examination board for Master's degree courses of the Department of Computer Science on the basis of the applications for the courses. The application procedure with details of application deadlines is published on the website of the department.
- (3) The suitability of an applicant is assessed on the basis of the following documents, which must be enclosed with the application for enrolment in either German or English:
  - 1. A leaving certificate from the previous course of study showing the final grade, duration of the course and achievements (for example in the form of an academic transcript, transcript of records) or corresponding evidence of achievements from the previous course of study and further documents if applicable,
  - 2. a description of the contents of the achievements shown in accordance with number 1,
  - 3. a statement with the reasons for doing this degree course and an explanation of the study objectives,
  - 4. a description of professional and personal background with details of practical knowledge and experiences if applicable,
  - 5. a letter of recommendation from at least two university lecturers; the letter of recommendation should include statements about how well the applicant performed in comparison to other graduates on the same course of study.

If the applicant completed his/her bachelor degree at the Technische Universität Kaiserslautern, only the documents described in numbers 1, 3 and 4 are required.

- (4) The aptitude assessment procedure for the Master's degree courses Computer Science and Socioinformatics consists of two steps:
  - 1. In the equivalence of qualifications test, the applicant's previous university degree is compared with the corresponding bachelor degree in Computer Science or Socioinformatics at the Technische Universität Kaiserslautern in terms of scope, contents and orientation. If the degree is at least equivalent, the equivalence test is passed. Otherwise, the examination board may impose missing academic and examination credits from the associated Bachelor's degree up to a maximum of 30 CP on the applicant, which are to be fulfilled as conditions in accordance with § 2a. If equivalence can't be established even with conditions, the applicant isn't suited to the Master's degree courses mentioned here.
  - 2. The professional competence test is based on the following assessment criteria:
    - knowledge of German and English (in accordance with §2, Sections 5 and 6 of the Examination Regulations for Master's degrees in Computer Science and Socioinformatics),
    - competences acquired in the previous degree course,

- practical knowledge and experiences conducive to a Master's degree course and
- the ability to study quickly and effectively.
- (5) The determination of the suitability of an applicant results in the final evaluation of either "suitable" or "not suitable". If the suitability can't be determined based on the application documents, the examination board can request further documents or invite the applicant to do a presentation in front of the examination board.
- (6) An aptitude assessment procedure which was evaluated as "not suitable" may only be repeated again after one year at the earliest.
- (7) The applicant will receive a written notification with the result of the aptitude assessment procedure with corresponding instructions on how to appeal. A record will be made of the aptitude assessment procedures carried out. For access to files §24 applies accordingly.

Kaiserslautern, 16 July 2018

Dean of the Department of Computer Science (Prof. Dr. Stefan Deßloch)