

# Examination Regulations Governing the Master's Degree Programme in Systems Engineering

23 April 2015

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**Note:** This translation is provided for information purposes only. In the event of any discrepancy between the translation and the original German version published in the Official Bulletin (*Dienstblatt der Hochschulen des Saarlandes*), the provisions of the latter shall take precedence.

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Pursuant to Section 59 of the Saarland University Act of 23 June 2004 (Official Gazette of Saarland, p. 1782) as amended by the Act of 14 October 2014 (Official Gazette, p. 406) and pursuant to the Framework Examination Regulations for Bachelor's and Master's Degree Programmes at Saarland University (BMPRO) of 12 May 2010 (Official Bulletin of the Institutions of Higher Education in Saarland, p. 208) and with the consent of the University Senate and the University Board, Faculty 7 (Natural Science and Technology Faculty II – Physics and Mechatronics) at Saarland University hereby issues the following Examination Regulations for the consecutive Master's Degree Programmes in Systems Engineering.

## Content:

### I General provisions

- 1 Scope, organizational responsibility
- 2 General information
- 3 Standard period of study
- 4 Modularization and ECTS credits
- 5 Programme structure and student workload
- 6 Examination Board and Examination Office
- 7 Examiners; Supervisors; Observers
- 8 Language of examination
- 9 Assessments and examinations
- 10 Progress checks
- 11 Grading of academic assessments and examinations and information on grading scheme
- 12 Withdrawal from an examination; Failure to attend; Deception; Contravention of regulations
- 13 Recognition of previous periods of study and of credits for earlier coursework, assessments and examinations
- 14 Studying part-time
- 15 Deception and plagiarism
- 16 Inspection of records

### II The Master's degree programme – Admission, assessment and graduation

- 17 Admission requirements
- 18 Registering for modules and end-of-module examinations
- 19 Industrial placement/internship
- 20 Registering for the Master's thesis
- 21 The Master's thesis: topic, duration, presentation and layout of thesis, thesis assessment, pass/fail
- 22 Successfully completing the Master's programme and overall grade
- 23 Repeating assessments and examinations and/or the Master's thesis
- 24 The Master's examination certificate

25 Master's degree qualification and the formal graduation certificate

26 Diploma supplement and transcript of records

### **III Final provisions**

27 Commencement

## **I General provisions**

### **Section 1**

#### **Scope, organizational responsibility**

These examination regulations govern the academic assessments and examinations for the Master's degree programme 'Systems Engineering' at Saarland University. The organization of the curriculum, teaching and examinations in this programme is the responsibility of Faculty 7 (Natural Science and Technology Faculty II – Physics and Mechatronics) at Saarland University.

### **Section 2**

#### **General information**

(1) Faculty 7 (Natural Science and Technology Faculty II – Physics and Mechatronics) at Saarland University shall confer a Master of Science degree (M.Sc.) on students who successfully complete the study programme in accordance with the assessment and examination procedures set out in these examination regulations.

(2) The Master's programme in Systems Engineering is a more research-oriented, single-subject degree programme that offers different areas of specialization and that builds on the Bachelor's degree programme in Systems Engineering. The programme modules are classified into the following categories: core subject area (departmental terminology: core courses), supplementary area (departmental terminology: enhancement courses), organization and management, general electives (departmental terminology: supplementary courses), seminars and project seminars, other university courses, industrial work placement/internship, Master's thesis project and the Master's seminar. The programme teaches students the methods and techniques used in scientific research and enables them to acquire an understanding of the deeper principles and key research results in the chosen areas of study. It also prepares students for challenging research and development work in the field of systems engineering.

(3) The Master's programme can be studied either part time or full time (cf. Section 14). Students can study part time in every semester except the semester in which they carry out their Master's thesis project.

(4) All regulations apply equally to full-time and part-time students.

(5) Module assessments and examinations and the Master's thesis phase may only be undertaken by a student who is properly enrolled in the programme. In exceptional cases and where reasonable grounds exist, a student may apply to the Examination Board for exemption from this requirement. The application may be submitted irrespective of the applicant's enrolment status.

### **Section 3**

#### **Standard period of study**

(1) The standard period of full-time study for the Master's degree programme is four semesters including the time taken to complete the final academic assessment phase.

(2) The standard period of part-time study for the Master's degree programme is seven semesters including the time taken to complete the final academic assessment phase. Students must study full time during the semester in which they undertake their Master's thesis project. If a student undertakes part-time study for only a portion of the degree programme, the standard period of study referred to in Paragraph 1 above shall be extended as follows:

- for one or two semesters of part-time study, an extension of one semester
- for three or four semesters of part-time study, an extension of two semesters
- for five or six semesters of part-time study, an extension of three semesters.

(3) Semesters in which a student was granted leave of absence from the programme shall not be added to the standard period of study.

(4) The Examination Board shall, on request, take account of statutory periods of maternal leave, periods of parental leave and family care obligations (particularly caring for one or more children under the age of 18 or supporting family members with care needs), as well as the special needs of students with disabilities.

(5) The study regulations shall state the semester by which each module or module element should be completed in order for the module or module element to be considered to have been completed within the standard period of study.

#### **Section 4 Modularization and ECTS credits**

(1) Modularization is understood to mean pooling subject matter on particular topics to create separate academic units ('modules') that are taught over a specified period of time. Students earn ECTS credits (often referred to in Germany as 'credit points' and abbreviated as 'CP') by successfully completing modules. A module typically comprises several courses (module elements) of related content that are taught in a single semester or in two consecutive semesters. The credits that can be earned for a module are calculated as the sum of the credits from the individual module elements.

(2) The successful completion of a programme module is documented by recording the ECTS credits awarded. Student workload is calculated on the basis that one ECTS credit is awarded for 30 hours of study. This base value shall be specified when documenting a student's academic achievements (e.g. in the student's transcript of records).

(3) The student workload associated with a module or module element shall be listed in the study regulations in terms of the overall time requirements and the corresponding number of credit hours per week. Information shall also be provided about the type of assessment or examination associated with a specific module element and whether the award of academic credits for a module depends on the successful completion of assessments or examinations in one or more module elements. Details shall also be provided about how often each module element is offered (each semester, each summer semester, each winter semester, etc.). If a compulsory module element is offered with a frequency other than that specified above, this shall be noted and a reference semester (or reference year) specified that denotes the beginning of the frequency cycle.

(4) Each module shall conclude with an end-of-module examination, which is usually graded. The purpose of an end-of-module examination is to demonstrate that students have achieved the learning objectives for a particular module, that they understand the key aspects of the relevant subject matter and methodologies, and that they are able to apply the knowledge and skills acquired. End-of-module examinations/assessments are undertaken throughout the programme and may consist of several module element assessments or examinations that typically cover the curricular content of the respective module elements. Students who

complete a module or module element shall be awarded a 'pass' or 'fail' classification or shall receive a graded assessment in accordance with the grading system set out in Section 11. If a module or module element is graded, this must be stated in the study regulations.

(5) At least 50% of the academic assessments and examinations (measured in terms of ECTS credits) should be graded.

(6) Credits can only be earned for a module or module element if the student workload is worth at least one ECTS credit and the student successfully completes the assessment or examination associated with that module or module element.

(7) The relevant Examinations Office shall keep an academic record for each student that is updated at the end of each semester by recording the number of credits earned by that student through academic assessment and examination. Credits for coursework, assessments or examinations that were awarded elsewhere and that are deemed transferable (e.g. when a student transfers from another university, or that a student earned from a distance-learning or study-abroad programme) shall also be included in the academic record.

## **Section 5**

### **Programme structure and student workload**

(1) To graduate from the Master's programme in Systems Engineering students shall earn a total of 120 ECTS credits, of which 9 credits are earned in the work placement/internship stage of the programme and 30 credits are earned for the Master's thesis.

(2) The study regulations and the associated study plan ensure that the student workload is distributed evenly over the course of the degree programme so that students can acquire approximately 60 credits in each year of the programme.

(3) The type and scope of the curricular requirements shall be such that students can graduate from the Master's programme within the standard period of study.

(4) In order to graduate from the Master's programme students are required to pass the module examinations that are held throughout the programme. The Master's degree programme concludes with the Master's thesis.

## **Section 6**

### **Examination Board and Examination Office**

(1) Pursuant to Section 23(1) of the Saarland University Act, Faculty 7 (Natural Science and Technology Faculty II – Physics and Mechatronics) at Saarland University shall establish an Examination Board that shall administer the assessments and examinations in the Master's degree programme in System Engineering. The Examination Board shall receive organizational support from the Examinations Office of the Faculties of Natural Science and Technology.

(2) The Examination Board shall comprise:

1. three representatives from the group of professorial staff in the Department of Mechatronics
2. one representative from the group of mid-level academic staff in the Department of Mechatronics
3. one representative, who shall have limited voting rights, from the group of students in the Department of Mechatronics.

The member from the group of students shall only have an advisory vote on the Examination Board if questions regarding the grading of the Master's degree arise.

Each member of the Examination Board shall have a deputy who represents them in their absence. The members of the Examination Board, as defined in items 1 to 3 above, and their deputies shall be elected for a term of two years by the Faculty Council after being nominated by the relevant member group. Members may be re-elected at the end of their term. If a member or deputy member of the Board withdraws before the end of their term, a replacement shall be selected for the remainder of the term. Deputy members and replacement members may be re-elected at the end of their term.

The Examination Board shall appoint a Chair and Deputy Chair from the members of the Board specified in Paragraph 2, Sentence 1, Item 1 above.

(4) The Examination Board is responsible for monitoring compliance with the provisions of these examination regulations. The Examination Board may delegate the duties assigned to it, either generally or in specific individual cases, to the Chair of the Examination Board. If a decision made by the Chair is contested either by a candidate or by a member of the Examination Board, the decision shall be taken by the Examination Board.

(5) The Examination Board shall be quorate when its members have been duly notified and a majority of voting members is present. Decisions of the Board shall be made by a simple majority of the voting members in attendance. In the event of a tie, the Chair shall have the casting vote.

(6) The members and deputy members of the Examination Board are obliged to maintain confidentiality in accordance with Section 17(2) of the Fundamental Principles and Rules Governing Saarland University (*Grundordnung der Universität des Saarlandes*).

(7) The Examination Board shall

1. decide on applications to register for student assessments and examinations over the course of the degree programme and on applications to register for the final assessment phase of the Master's degree programme (Master's thesis project)
2. decide on requests for exemption from registration requirements
3. decide on whether to accept academic assessments or examinations in a form other than that normally prescribed
4. consult with the relevant members from the group of professorial staff (item 1 of Section 13(1), Saarland University Act) with respect to recognizing previous periods of study and credits from previous coursework, assessments and examinations in a previous Master's programme, and whether or not such previous periods of study should be taken into account when determining the standard period of study
5. appoint the examiner (thesis examiner) and the second examiner and the supervisor for the Master's thesis
6. decide on requests to extend the completion period for the Master's thesis
7. decide on requests regarding the language used for the Master's thesis
8. appoint, if necessary, a third thesis examiner for the Master's thesis
9. decide on whether to annul the results of academic assessments or examinations and to terminate the assessment or examination procedure, review decisions regarding the grading of academic assessments or examinations if these have been influenced by student deception, and review decisions to exclude a student from an academic assessment or examination
10. decide on any subsequent amendment of academic grades and on whether to nullify a candidate's attempt to graduate from the Master's degree programme
11. comment on proposals from the department to amend the module catalogue

12. decide on requests for statutory periods of maternity leave, for periods of parental leave or for compassionate leave (particularly caring for one or more children under the age of 18 or supporting family members with care needs)
13. decide on objections raised by a candidate with regard to the grading of end-of-module examinations, assessments or examinations associated with module elements or in-module tests.

(8) The duties set out in items 1 to 8 and 11 to 13 of Paragraph 7 above shall be carried out on behalf of the Examination Board by the Chair of the Board. If a decision made by the Chair is contested by a candidate, an examiner, an observer or by a member of the Examination Board, the decision shall be taken by the Examination Board.

## **Section 7**

### **Examiners; Supervisors; Observers**

(1) The Examination Board may appoint examiners (thesis examiners) from the group of professorial staff (item 1 of Section 13(1) of the Saarland University Act), emeritus or retired professors, honorary professors, senior academics qualified to professorial level, heads of independent junior research groups and independent professors on special contracts. After consultation with professors in the relevant subject area, the Examination Board may in special cases also appoint examiners from the group of mid-level research/teaching staff as defined in Section 37(1) of the Saarland University Act, lecturers with specialist teaching duties, part-time contract teaching staff who teach in the relevant subject area, professors from other universities, and other qualified and experienced professionals working in the relevant field. Former members of Saarland University who left the faculty no more than five years ago may, with their consent, also be appointed as examiners. Honorary professors, senior academics qualified to professorial level and professors on special contracts who no longer have teaching duties, and temporary professors (as defined in Section 36(7) of the Saarland University Act) who taught for more than two semesters may, with their consent, be appointed as examiners during a period of up to two years after leaving the faculty.

(2) In special cases and after consultation with professors in the relevant subject area, the following persons may be appointed as supervisors of Master's thesis projects: members of the group of mid-level research/teaching staff (as defined in Section 37(1) of the Saarland University Act), lecturers with specialist teaching duties, part-time contract teaching staff who teach in the relevant subject area and professors from other universities. Former members of Saarland University who left the faculty no more than five years ago may, with their consent, also be appointed as supervisors. Honorary professors, senior academics qualified to professorial level and professors on special contracts who no longer have teaching duties, and temporary professors (as defined in Section 36(7) of the Saarland University Act) who taught for more than two semesters may with their consent, be appointed as supervisors during a period of up to two years after leaving the faculty.

(3) The examiners who conduct module or module element assessments/examinations include the members of academic staff who teach the corresponding modules or module elements. Thesis examiners shall be the members of academic staff who teach the modules or module elements in the core or supplementary areas (departmental terminology: core or enhancement courses) in the Master's degree programme in Systems Engineering, provided that they also satisfy the requirements set out in Paragraph 1 above.

(4) The observer at an oral examination shall be a member of the university who has an academic qualification relevant to the subject matter of the examination and that is equivalent to a *Diplom*-degree or Master's degree from a German university or comparable higher education institution.

## **Section 8**

### **Language of examination**

The language of examination is German or English. Another language of examination may be permitted if so agreed by the examiners, the candidate, and, where applicable, the observer.

## **Section 9**

### **Assessments and examinations**

(1) End-of-module examinations/assessments may be oral or written examinations, which may be spread over several dates, or may take the form of project and lab work, seminar work or combinations thereof. The form of the end-of-module examination/assessment to be conducted, its duration and information on registration shall be announced at the beginning of the module. If a combination of assessments is used, students shall be notified of the weighting of the respective parts. Students shall be notified at least three weeks in advance about the dates of academic assessments or examinations.

(2) An end-of-module examination/assessment shall be held (for the first time) no later than the beginning of the semester following that in which the final module element was taken.

(3) End-of-module examinations/assessments for graded modules shall be offered at least twice a year. The precise examination periods shall be determined by the Examination Board and announced at the beginning of the semester.

(4) End-of-module examinations/assessments shall be evaluated by at least one examiner. If failure to pass an end-of-module examination/assessment at the final attempt ('final retake') would lead to the student irrevocably failing the module, the examination/assessment shall be conducted by two examiners. In such cases, the candidate may submit a request to the Examination Board for an examiner to be replaced by another examiner from the Department of Mechatronics.

(5) Paragraphs 1 to 4 apply analogously to module element examinations/assessments.

(6) In-module tests comprise one or more ungraded knowledge tests that are taken by students during the semester in which the module is taught. Students who successfully complete the in-module tests have demonstrated that they have achieved the minimum learning outcomes required in preparation for an end-of-module examination/assessment or a module element assessment/examination. An in-module test may be in written form (e.g. solving exercises or problems or compiling lab reports) or may be conducted orally. In-module tests are the responsibility of an examiner, but may be administered by a person delegated by the examiner. The results of the in-module tests shall be documented.

(7) Written academic assessments include written examinations, written assignments (departmental terminology: homework), seminar papers, project documentation, lab reports and implementation assignments. Written academic assessments shall be evaluated by an examiner. Written examinations shall be invigilated by an examiner or by an authorized person for whom the examiner is responsible. Written examinations should last at least 60 minutes and not more than 180 minutes. The time allotted for written assignments, seminar papers, project documentation, lab reports and implementation assignments shall be announced at the beginning of the relevant module element.

(8) Student assessments in seminars may take the form of oral assessments (e.g. student presentations) and/or written assessments (e.g. written assignments, extended essays). The assessments are graded by an examiner, who is usually the seminar instructor. The time allotted to complete a seminar assessment shall be announced at the beginning of the relevant module element.

(9) Oral assessments may be conducted individually or in groups or may be in the form of oral presentations. An oral assessment typically lasts between 15 and 30 minutes per candidate. Oral examinations shall be conducted by two examiners or by one examiner and an observer who is familiar with the subject matter of the examination. If space allows, students on the Master's degree programme in Systems Engineering may be permitted to attend an oral examination provided that the candidate being examined does not object. Permission to attend does not cover the examiners' discussions nor the announcement of the result. The main topics addressed in an oral exam, the results and the grade awarded shall be recorded in writing and this report shall be signed by the examiners or by the examiner and the observer. The examiner shall consult with the observer before deciding on the grade to be given. The grade shall be determined in accordance with the provisions set out in Sections 11(1) and 11(2). The grade awarded shall be communicated to the candidate immediately after the oral examination.

(10) If a candidate submits a medical certificate issued by a physician that states that due to a prolonged or permanent health impairment the candidate is not in a position to undertake an examination or assessment in the prescribed form, either in part or in full, the Examination Board may, on request, approve appropriate academic accommodations.

(11) The Examination Board shall, on request, take account of statutory periods of maternal leave, periods of parental leave and family care obligations (particularly caring for one or more children under the age of 18 or supporting family members with care needs), as well as the special needs of students with disabilities.

(12) If an objection is raised with respect to the grading of an academic assessment or examination, the Examination Board shall reach a decision after consultation with the relevant examiner.

## **Section 10**

### **Progress checks**

(1) A student studying full-time shall fulfil the following minimum academic progress requirements:

after 1 semester, a total of at least 9 credits  
after 2 semesters, a total of at least 30 credits  
after 4 semesters, a total of at least 60 credits.

(2) For students studying part-time, the time frames set out in Paragraph 1 shall be extended as follows:

for one or two semesters of part-time study, an extension of one semester  
for three or four semesters of part-time study,  
an extension of two semesters for five or six semesters of part-time study, an extension of three semesters.

(3) If a student does not achieve the expected minimum academic progress by the end of a semester, they shall be notified in writing that there is a risk of not fulfilling the academic requirements for the programme. The student shall be offered a study counselling interview.

(4) If for two consecutive semesters, and in the absence of reasons beyond the student's control, a student fails to achieve the minimum academic progress required at the end of the respective semesters, or if a student has failed to earn 90 credits after studying full-time for six semesters, they shall lose the right to be examined and therefore to graduate from the Master's programme. For students studying part-time, the six-semester deadline shall be extended in accordance with the provisions in Paragraph 2 above. In this event, the Examination Board shall notify the student in writing and shall include information on the candidate's right of appeal. Before any final decision is made by the Examination Board, the student shall be



granted a two-week period in which they have the opportunity to make representations on this matter to the Board.

(5) In exceptional cases and where reasonable grounds exist, the Examination Board may agree to extend the time frames set out in Paragraphs 1 and 2 by one semester.

## **Section 11**

### **Grading of academic assessments and examinations and information on grading scheme**

(1) If a student assessment or examination is to be graded, the following grading system shall be used:

- 1 'Very good' – outstanding performance
- 2 'Good' – student performance significantly better than average
- 3 'Satisfactory' – student performance meets average requirements
- 4 'Sufficient' – student performance that despite its shortcomings still meets the minimum requirements
- 5 'Fail' – Failure to meet the minimum requirements due to significant shortcomings in student performance.

(2) To provide a more differentiated scale with which to grade student assessments or examinations, intermediate grades may be awarded by raising or lowering the grade by 0.3 accordingly; the grades 0.7, 4.3, 4.7 and 5.3 are excluded from the scale.

(3) The grade is supplemented by an ECTS grading that provides a means of assessing a student's achievements in relative terms and that is also included in the diploma supplement. The ECTS grading scale uses a statistical scheme to classify the performance of an individual student relative to the performance of other students. Students who have passed the minimum requirements are classified as follows:

- A = the top 10%
- B = the next 25%
- C = the next 30%
- D = the next 25%
- E = the next 10%.

This approach shall be used if the size of the reference cohort is large enough to enable reliable statements to be made about the percentage distributions. Pragmatic solutions will need to be found if reference cohorts are too small.

(4) If the overall assessment of a module is based on several separate graded assessments or examinations from the component module elements, the final grade for the module shall be calculated as follows: Each grade from a component assessment or examination is multiplied with the credits awarded for that module element and the results added together. The value so obtained is then divided by the total number of credits awarded for the individual component module elements. If necessary, the result shall be rounded down to the next (intermediate) grade on the scale and expressed to one decimal place. (Note: in the German grading system, the lower the numerical value, the better the grade.) Module elements that only have a pass/fail option are not included in the calculation of the final grade awarded for that module.

(5) If the individual examiners have awarded different grades for the Master's thesis, the overall thesis grade shall be calculated as the arithmetic mean of the proposed grades. The mean value shall be rounded down to one decimal place (see also Section 21(14)).

(6) An assessment or examination associated with a module or module element is deemed to have been completed successfully if the candidate is awarded a 'pass' grade or, when numerical grading is applied, the candidate achieves at least the grade 'sufficient'. If an end-

of-module assessment/examination comprises a number of assessments or examinations from component module elements, the module is deemed to have been completed successfully if the candidate has passed all of the required module elements assessments/examinations as detailed in the study regulations.

(7) A candidate is deemed to have irrevocably failed an assessment/examination associated with a module or module element if the candidate receives a 'fail' grade or a numerical grade of '5.0', and no further retake attempts (see Section 23) are permitted. If an end-of-module assessment/examination comprises a number of assessments or examinations from component module elements, a candidate is deemed to have irrevocably failed the module if the candidate has irrevocably failed one or more of the compulsory module elements or all of the elective module elements. If a candidate has irrevocably failed an assessment/examination associated with a module or module element, the candidate shall lose the right to examination in that module or module element.

(8) Candidates shall be notified of the results of an assessment/examination associated with a module or module element no later than four weeks after the assessment/examination has been held. The results shall be documented and filed at the Examinations Office. Candidates who have passed an assessment/examination shall earn the ECTS credits associated with the relevant module elements. For each module element that a candidate completes successfully, the name of the module element, the number of credits earned and, where applicable, the grade awarded will be documented in the downloadable student academic records in SIM, in the LSF portal and in the candidate's transcript of records.

## **Section 12**

### **Withdrawal from an examination; Failure to attend; Deception; Contravention of regulations**

(1) A student may withdraw from an assessment or examination associated with a module or module element up to one week before the start of the assessment/examination without needing to state a reason. If a candidate for assessment or examination withdraws after this date without providing a reason or if credible reasons were not submitted in writing and without unreasonable delay to the Examination Board (see Paragraph 3 below), the candidate shall be deemed to have failed the assessment or examination.

(2) If a candidate fails to attend a written or oral examination on the set date without good cause, the candidate shall be awarded a fail grade. The same applies if a written assessment is not completed within the stipulated period.

(3) If there are credible reasons why a candidate withdrew from or failed to attend an assessment or examination, these reasons shall be submitted in writing and without unreasonable delay to the Examination Board. If the candidate was ill, the candidate is required to present a medical certificate issued by a physician. If the same candidate presents a medical certificate on repeated occasions, the Chair of the Examination Board may demand a medical certificate issued by a public medical officer. If a candidate withdraws from or fails to attend an academic assessment or examination because a child cared for by the candidate was ill, the child's illness shall be treated as if the candidate was ill. The candidate shall demonstrate that it was necessary for them to care for the ill child by providing a medical certificate issued by a physician in accordance with Article 45 of Book V of the German Social Welfare Code (SGB V). If the reasons given for withdrawal or non-attendance are accepted, the assessment or examination shall be deemed not to have been attempted, and a new date for assessment or examination may be scheduled if this is compatible with the type of assessment or examination proposed.

(4) If a candidate attempts to register for an assessment or examination by deception, or if the Examination Board erroneously assumed that essential requirements for registration had been satisfied, the Examination Board may decide to nullify the results of previous assessments or examinations and may stop the assessment or examination procedure. Before any such decision is made, the candidate shall have the opportunity to be heard. The candidate shall be notified in writing about any decision and the letter of notification shall include information on the candidate's right of appeal.

(5) If a candidate attempts to influence the result of an assessment or examination by deception or by the use of unauthorized aids, the candidate shall receive a fail grade for that assessment or examination. A fail grade shall also be awarded to any candidate whose behaviour prevents the orderly conduct of an examination and who is excluded from the examination after receiving prior warning from the examiner or from a person authorized by the examiner. The candidate may ask the Examination Board to reappraise any such decision made pursuant to Paragraphs 1 and 2 above within a period of one month of the decision being made. If the Examination Board upholds the earlier decision, the candidate shall receive a fail grade for that assessment or examination. The candidate shall be notified immediately in writing about the Board's decision and the letter of notification shall include the reasons for the decision and information on the candidate's right of appeal. If the Examination Board does not uphold the earlier decision, the relevant academic assessment or examination shall be deemed not to have occurred and the Chair of the Examination Board shall instruct the relevant examiner to recall the candidate for assessment or examination.

### **Section 13**

#### **Recognition of previous periods of study and of credits for earlier coursework, assessments and examinations**

(1) Previous periods of study and credits earned for earlier coursework, assessments and examinations ('prior learning') in degree programmes at universities in Germany, at recognized foreign universities or at a recognized distance-learning institution will be accepted provided that there are no significant differences in academic content when compared with the modules for which transfer credits are being accepted. Prior learning shall be accepted provided that there are no significant differences with respect to content, scope and academic requirements when compared with the Master's degree programme in Systems Engineering at Saarland University.

(2) When recognizing prior learning at foreign universities, the equivalency agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs (KMK – *Kultusministerkonferenz*) and the German Rectors' Conference (HRK – *Hochschulrektorenkonferenz*) shall be taken into account, as shall any agreements existing between Saarland University and its partner universities.

(3) Paragraphs 1 and 2 apply analogously to prior learning in state-accredited distance learning programmes.

(4) If a student demonstrates proof of having acquired an equivalent level of competency and skill in a non-university environment, the student may earn up to half of the corresponding academic credits allotted for such knowledge and skills in the Master's programme.

(5) The candidate is responsible for providing the documentation required for the recognition process. Students have a legal right to have prior learning recognized if the requirements set out in Paragraphs 1 to 4 above have been met.

(6) If earlier academic coursework has been accepted but ECTS credits were not awarded for that work, the equivalent number of credits shall be calculated and the academic record for that student updated accordingly.

## **Section 14**

### **Studying part-time**

(1) Students and prospective students may be enrolled at the university as part-time students if they are only able to study for at least 50% and no more than 60% of their available working hours due to employment obligations, pregnancy, maternity leave, caring for one or more children or adolescents, supporting family members with care needs, or for some other important reason. If the volume of academic work undertaken by a part-time student in one semester exceeds 60% of the academic credits associated with full-time study, that semester shall be treated as if the student were studying full-time. In individual cases in which the volume of work completed by a student only marginally exceeds the limit for part-time study, the student may apply to offset the excess volume against, for example, a reduced workload in the latter part of the same academic year. More detailed provisions are set out in the Regulations Governing Student Enrolment at Saarland University.

(2) A student on the Master's programme may study part time for no more than six semesters in total. In cases of special hardship, the Examination Board may, on request, extend the maximum period of part-time study. Except in exceptional cases and where reasonable grounds exist, students shall complete their Master's thesis as a full-time student.

(3) Part-time study does not create any legal entitlement to the provision of special programme content or a modified curriculum.

(4) No liability shall be accepted and no responsibility borne for any effects that part-time study may have on areas for which the faculties are not responsible, or that it may have on courses or modules offered by external institutions. Students are obliged to contact the appropriate bodies in good time to ensure that they have the relevant information.

(5) A student that remains as a part-time student shall be required to attend a study counselling interview every two semesters with the counselling or advisory service responsible for the student's programme of study.

(6) The volume of academic work undertaken by a student in a particular semester shall be calculated on the basis of all of the modules taken by the student in that semester, irrespective of whether a pass or fail grade was attained.

## **Section 15**

### **Deception and plagiarism**

(1) If a candidate is found to have cheated in an assessment or examination and if this fact only becomes apparent after the examination certificate has been issued, the Examination Board may retroactively amend the grades awarded for those assessments or examinations in which the graduate was found to have cheated and may assign a fail grade either for the entire assessment or examination, or for some part thereof.

(2) If the registration requirements for an assessment or examination were not met but there was no intentional misrepresentation on the part of the candidate and if this fact only becomes apparent after the assessment or examination has been completed, this defect shall be deemed to have been remedied by the fact that the candidate successfully completed the assessment or examination. If a candidate intentionally used wrongful means to gain registration for an assessment or examination, the Examination Board shall decide on any penalties.

(3) Before the Examination Board makes any decision pursuant to Paragraph 1 or Paragraph 2.2 above, the candidate shall have one month in which to make representations about this matter.

(4) The candidate shall be notified in writing about any decisions made pursuant to Paragraph 1 or Paragraph 2.2 above. The letter of notification shall include the reasons for the decision and information on the candidate's right of appeal. Decisions pursuant to Paragraph 1 or Paragraph 2.2 above are subject to a period of limitation of five years from the date of the certificate.

(5) The incorrect formal graduation certificate and the incorrect examination certificate shall be revoked.

### **Section 16 Inspection of records**

After an assessment or examination has been completed, candidates shall, on request, be granted the opportunity to inspect their written work, the examiners' reports and examination records. Inspection applications shall be submitted to the Examination Board no later than one month after the results of the assessment or examination have been announced. The place, date and time of the inspection appointment shall be determined by the Examination Board.

## **II The Master's degree programme – Admission, academic assessment and graduation**

### **Section 17 Admission requirements**

(1) Students seeking admission to the Master's programme shall:

1. have a Bachelor's degree or equivalent qualification from a German or foreign university in systems engineering or a related field (specifically, mechanical engineering, electrical engineering, computer science or informatics, microsystems engineering or mechatronics)
2. demonstrate adequate language proficiency (as a rule, at least level B2 of the Common European Framework of Reference for Languages or equivalent) for academic study in German and/or English and
3. demonstrate particular academic aptitude (see Section 69(5) of the Saarland University Act).

(2) The criteria used to assess particular academic aptitude are:

1. sufficient merit in the applicant's previous academic track record, as demonstrated by an overall grade in the Bachelor's degree (see Paragraph 1 above) of at least 'good' (German grading scale: 2.5 or better), or
2. the applicant's suitability for the programme as demonstrated in an oral interview conducted by two examiners from the Department of Mechatronics and appointed by the Examination Board, whereby, in this case, significant weight is still given to the overall grade achieved by the candidate in their Bachelor's degree (see Paragraph 1).

The criteria listed above are used to assess the aptitude of the applicant in terms of the academic profile and requirements of the Master's degree programme in Systems Engineering and its specialist subject areas (departmental terminology: specializations).

(3) Applicants who do not yet have their Bachelor's degree examination certificate may apply to the Examination Board for provisional admission that will permit them to undertake examinations and assessments in the Master's programme. In such cases, the Examination Board shall set an individual deadline by which the Bachelor's degree examination certificate has to be submitted.

(4) Decisions on whether admission requirements have been met shall be made by the Examination Board.

### **Section 18 Registering for modules and of end-of-module examinations in the Master's programme**

(1) A student shall apply to register as a candidate for examination and assessment in the Master's programme before registering for their first examination or assessment in a module or module element. This application shall be submitted in writing to the Examination Office of the Faculties of Natural Science and Technology (*Prüfungssekretariat*). The application shall be submitted together with a declaration stating whether the student has previously irrevocably failed the intermediate examination in a single-tier integrated degree programme (*Magister* or *Diplom*) in the field of systems engineering or a related academic discipline, or has irrevocably failed to graduate from a Bachelor's degree programme, a single-tier integrated degree programme (*Magister* or *Diplom*), or a Master's degree programme in the field of systems engineering or a related academic discipline, or has irrevocably failed a state-accredited university examination in systems engineering, or whether a final decision regarding an irrevocable fail is currently pending.

(2) Registration for all other modules occurs when the student provides proof that the registration requirements for the relevant modules have been met in accordance with Section 7 of the study regulations.

(3) Before registering for a module assessment or examination, students shall demonstrate that they have successfully completed the exam registration requirements specified in the study regulations.

(4) A student may only take a module assessment or examination if they have formally registered with the Examination Office within the relevant registration period.

(5) An application to register for module assessments or examinations may only be rejected if:

1. the required documents have not been submitted in their entirety or
2. the requirements set out in Paragraphs 1, 3 or 4 have not been met or
3. the candidate has lost the right of assessment or examination for the relevant module or for the programme as a whole (cf. Section 20(1)), or has irrevocably failed one of the examinations or failed to graduate from one of the programmes detailed in Paragraph 1 above.

### **Section 19 Industrial placement/internship**

(1) The industrial placement/internship is a practical training phase of at least 8 weeks duration in which students undertake work in an area of systems engineering in an industrial environment. Students completing the work placement/internship will earn 9 ungraded credits.

(2) The Faculty 7 (Natural Science and Technology Faculty II – Physics and Mechatronics) shall appoint an authorized person to administer the work placement / internship stage of the programme.

(3) The student shall propose a topic and the content of the work placement/internship, which shall be reviewed and approved by an examiner (as defined in Section 7 of these regulations).

(4) The work placement/internship is

1. formally assessed by the faculty administrator for work placements/internships
2. assessed in terms of subject matter and for quality assurance purposes in a colloquium involving an examiner.

(5) More detailed provisions – including recognition of periods of military service or alternative civilian service undertaken in technical workshops or technical units – are provided in the 'Guidelines for Work Placements / Internships (Advanced Engineering Practice)' issued by Faculty 7 (Natural Science and Technology Faculty II – Physics and Mechatronics).

### **Section 20 Registering for the Master's thesis**

(1) Students may register for the Master's thesis provided that they have properly completed all of the programme requirements. To demonstrate that these requirements have been met, students shall submit proof that they have:

1. acquired at least 77 credits in accordance with the provisions of the study regulations
2. earned credits for their work placement/internship
3. successfully completed the Master's seminar.

(2) Applications to register for the Master's thesis phase shall be submitted to the Examination Office together with supporting documentation demonstrating proper completion of all necessary programme requirements.

(3) The provisions of Section 18(1) and Section 18(5) above shall apply analogously when the Examination Office considers whether to approve or reject applications to register for the Master's thesis phase.

(4) If reasonable grounds exist, the Examination Board may, on request, admit a candidate to the Master's thesis phase if the requirements set out in Paragraph (1) above have not yet been met in full.

### **Section 21**

#### **The Master's thesis: topic, duration, presentation and layout of thesis, thesis assessment, pass/fail**

(1) The Master's thesis is a piece of supervised academic work. The thesis should demonstrate that the candidate is capable of addressing a specific problem in the field of systems engineering within a specified time frame through application of appropriate scientific methodologies and is able to present the results appropriately. The Master's thesis may be written in English or German. A candidate may submit a request to the Examination Board to use another language.

(2) The topic to be addressed in the Master's thesis may be set by any examiner as defined in Section 7(1).

(3) The Examination Board shall appoint a primary thesis examiner, a secondary thesis examiner and, when appropriate, the thesis supervisor. Typically, the primary thesis examiner also acts as the supervisor.

(4) The candidate shall be notified of the topic of the Master's thesis within a period of four weeks after the candidate has registered for the Master's thesis phase. The candidate shall have the opportunity to submit proposals regarding the topic of the Master's thesis, but is not obliged to do so.

(5) The date on which the topic was announced marks the start of the period in which the thesis is to be completed and shall be documented.

(6) The student workload for the entire Master's thesis project, including the Master's colloquium, is 30 ECTS credits, which corresponds to a completion period of 6 months. The thesis topic and the problems to be addressed shall be such that the thesis can be completed within the allotted time. In exceptional cases and where reasonable grounds exist, a candidate may apply to the Examination Board for an extension to the completion period. An extension of four weeks is generally regarded as reasonable. An extension of the thesis completion period shall not alter the number of credits awarded.

(7) Within two months of receiving notification of the thesis topic, the candidate may, on one occasion only, decline the topic of the thesis. In this case, the candidate will not be deemed to have failed the thesis project. A new topic for the Master's thesis shall be issued within a period of four weeks after declining the first topic.

(8) If a candidate is prevented from working on the Master's thesis for a period of more than one week because of illness or some other cause beyond the candidate's control, the thesis submission deadline shall be extended accordingly. The candidate shall notify the Examinations Office without unreasonable delay and shall provide supporting documentation, e.g. in the event of illness, the candidate shall provide a medical certificate issued by a physician. The Examination Board shall, on request, take account of statutory periods of



maternity leave, periods of parental leave or compassionate leave (particularly caring for one or more children under the age of 18 or supporting family members with care needs), as well as the special needs of students with disabilities.

(9) If a student does not meet the thesis completion deadline, a fail grade shall be awarded for the Master's thesis. Repeat attempts shall be subject to the requirements set out in Section 23(2).

(10) Candidates shall submit three printed copies of the Master's thesis to the Examinations Office. The candidate shall also submit an electronic version of the thesis in a common file format. The candidate shall give written assurance that the electronic version is identical in content to the printed version of the Master's thesis.

(11) When submitting a Master's thesis, each candidate shall include a signed declaration of original authorship stating that the thesis is their own original work and that no source materials or aids other than those indicated were used. Any parts of the thesis that draw on the wording or substance of other works or that make use of contributions from others shall be clearly marked as borrowings and the sources shall be acknowledged correctly. The candidate shall also state whether drawings, sketches, diagrams and photographic and graphic images are the candidate's own work, or were produced in accordance with the candidate's instructions, or are the work of others.

(12) The date of submission of the printed copies of the Master's thesis shall be documented.

(13) A research colloquium shall be held in order to establish that the Master's thesis is the candidate's own original work. The colloquium shall be held no later than six weeks after the candidate submits the printed version of the Master's thesis. The date of examination shall be recorded as the date on which the printed version of the Master's thesis was submitted.

(14) The Master's thesis shall be assessed by the two examiners specified in Paragraph 3. Both examiners shall hand in their written reports no later than six weeks after the printed version of the Master's thesis was submitted for examination; each report shall propose a thesis grade in accordance with the specifications in Section 11(1) and 11(2). If the proposed grades differ from one another, the grade for the Master's thesis shall be calculated in accordance with the provisions of Section 11(5). However, if the proposed grades differ by more than 2.0 or if only one of the thesis examiners awards a fail grade, the Examination Board shall appoint a third thesis examiner to assess the Master's thesis. Once the report from the third examiner has been received, the Examination Board shall, contrary to the provisions of Section 11(5), decide on the grade to be awarded for the Master's thesis based on the three reports received.

(15) The candidate shall be notified immediately about the result of the thesis examination including the grade awarded.

## **Section 22**

### **Successfully completing the Master's programme and overall grade**

(1) A candidate is deemed to have successfully completed the final assessment phase of the Master's degree programme if the candidate has:

1. earned the required number of 90 ECTS credits in accordance with the provisions of the study regulations
2. has successfully completed the Master's thesis project.

(2) A candidate shall be deemed to have failed to graduate from the Master's degree programme if the candidate has failed one or more of the compulsory modules, or has failed

all of the elective modules in a compulsory category, or has failed the Master's thesis project, including all permissible retake attempts ('irrevocable fail').

(3) The final overall grade awarded for the Master's degree qualification is calculated from the grades achieved for the module assessments and examinations specified in the study regulations and from the grade achieved in the Master's thesis project. Credits from academic assessments and examinations that were used to obtain the preceding Bachelor's degree cannot also be used to meet the degree requirements of the Master's programme.

(4) The final overall grade is calculated by (i) multiplying the grade attained for each module element assessment/examination with the number of credits associated with the respective module element and (ii) multiplying the grade attained for the Master's thesis with the number of credits associated with the thesis project and then adding the results. The value so obtained is then divided by the sum of the credits associated with the respective module elements and the Master's thesis. The result shall be rounded down to one decimal place. (Note: in the German grading system, the lower the numerical value, the better the grade.) Ungraded (pass/fail) modules are not included in the calculation of the final overall grade.

(5) The final overall grade that appears on the degree certificate and on the formal graduation certificate shall be classified as follows:

up to 1.5:	Very good
1.5–2.5:	Good
2.5–3.5:	Satisfactory
3.5–4.0:	Sufficient.

(6) A candidate who has failed or is deemed to have failed to graduate from the Master's degree programme shall be notified in writing by the Chair of the Examination Board; the letter of notification shall include information on the candidate's right of appeal and on whether and to what extent the candidate may retake assessments or examinations with a view to graduating from the programme.

(7) If a candidate who has completed all the stipulated programme requirements has acquired more than the minimum required number of graded credits, the candidate may, in accordance with the study regulations, select a subset of the successfully completed modules or module elements for inclusion in the calculation of the final overall grade.

(8) If a candidate is awarded a final overall grade of 1.2 or better and has not exceeded the standard period of study by more than one semester, the addendum 'with distinction' will appear on the Master's degree certificate and on the formal graduation certificate.

## **Section 23**

### **Repeating assessments and examinations and/or the Master's thesis**

(1) An assessment or examination that was awarded a fail grade may be repeated twice. The second repeat attempt at the assessment or examination may also be conducted as an oral examination. If a candidate does not achieve a passing grade in either of the two repeat assessments or examinations, the candidate shall lose the right to be examined in the relevant module elements. In exceptional cases and where reasonable grounds exist, the Examination Board may permit a third repeat assessment or examination. A student who successfully completed a module or module element is permitted to retake the assessment or examination on one further occasion within a one-year period in order to try and improve their grade. The student shall be awarded the better of the two grades. A student shall be permitted to repeat no more than three previously passed module or module element assessments/examinations.

(2) If a candidate is awarded a fail grade for the Master's thesis project, the candidate may have one further attempt at passing the Master's thesis requirement. In this case, the candidate

shall receive a new thesis topic no later than one month after the fail grade was announced. A candidate may decline the proposed thesis topic in accordance with Section 21(7) but only if this option was not used the first time the candidate attempted the Master's thesis. A third attempt at passing the Master's thesis requirement is not permitted; failed attempts at other universities will be taken into account.

(3) If a student fails to pass the Master's thesis requirement at the first attempt within the standard period of study, the attempt will be treated as if it had not been made.

#### **Section 24** **The Master's examination certificate**

(1) Students will receive a Master's examination certificate in German or, if requested, in English within two months of successfully completing the final assessment phase of the Master's degree programme. The examination certificate contains the overall grade classification and the calculated overall numerical grade as well as the subject of and the grade awarded for the Master's thesis.

(2) The examination certificate shall be signed by the Chair of the Examination Board. The certificate also bears the date of the final assessment or examination and the date on which it was signed.

#### **Section 25** **Master's degree qualification and the formal graduation certificate**

(1) The formal graduation certificate shall be issued to graduates within two months of successfully completing the Master's degree programme. The formal graduation certificate shall be signed by the Chair of the Examination Board and by the Dean and shall bear the seal of Faculty 7 (Natural Science and Technology Faculty II – Physics and Mechatronics). The certificate shall display the name of the degree programme and the graduate's chosen area of specialization. The certificate shall also bear the date of the final assessment or examination and the date on which it was signed.

(2) The formal Master's graduation certificate is issued in German, but may be issued in English on request. The formal graduation certificate confers upon the holder the academic degree 'Master of Science' (M.Sc.).

#### **Section 26** **Diploma supplement and transcript of records**

When graduates are awarded their degree certificates, they will also receive a diploma supplement and a transcript of their academic records.

### **III Final provisions**

#### **Section 27 Commencement**

These regulations shall come into force on the day after they are announced in the Official Bulletin of the Institutions of Higher Education in Saarland (*Dienstblatt der Hochschulen des Saarlandes*). These regulations are binding on all students who commence the Master's degree programme in Systems Engineering after this date.

Saarbrücken, 29 September 2015

President of Saarland University

Univ.-Prof. Dr. Volker Linneweber