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

Examination Regulations for the Continuing Education Distance Study Master’s Degree Programme "Nanotechnology" at the University of Kaiserslautern dated July 16, 2012
(Government Gazette of Rhineland Palatinate No. 30 dated August 20, 2012, p. 1634)

Amended by Regulation dated December 18, 2012
(Government Gazette of Rhineland Palatinate No. 4 dated February 11, 2013, p. 299)

Amended by Regulation dated August 27, 2015
(Announcements of the University of Kaiserslautern No. 4 dated September 15, 2015, p. 126)

In accordance with section 7 para. 2 no. 2 and section 86 para. 2 item 1 no. 3 of the Federal Higher Education Act dated November 19, 2010 (GVBl. p. 463), as amended by law (GVBl. p. 455) BS 223-41 dated December 20, 2011, the Faculty Council of the Department of Physics at the University of Kaiserslautern enacts the following examination policy for the Distance Study Master's Degree Programme "Nanotechnology" effective on June 29, 2012. This policy was approved by the President of the University of Kaiserslautern in a letter dated July 12, 2012 and is hereby announced with this publication.

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Part I: General

Sec. 1 Applicability, Responsibilities

(1) This examination policy governs the examination requirements and procedures for the continuing education distance study Master’s degree programme "Nanotechnology."

(2) The board of examiners for the "Nanotechnology" programme is the decision-making authority regarding the degree requirements for the "Nanotechnology" post-graduate programme.

Sec. 2 Admission requirements, complementary occupations

(1) The distance study programme in "Nanotechnology" at the University of Kaiserslautern is designed for university graduates who have at least one year of related job experience subsequent to earning an undergraduate degree in one of the natural or engineering sciences or medicine. All previous job experience up to the application deadline should be provided along with the respective documentation because in terms of course aims, content, didactics and organisation, the programme is designed for working persons. Job experience acquired after obtaining the undergraduate degree may also include appropriate periods of time spent working for a PhD programme.

(2) Applications are also accepted from those who do not have an undergraduate degree. These applicants must have a university entrance qualification according to section 65 para. 1 or 2 of the German Higher Education Act (HochSchG), at least three years of experience in a related occupation subsequent to acquiring the university entrance qualification, and a passing grade in the aptitude assessment as per section 2a of these examination regulations.

(3) The requirements for university entrance qualification as per section 65 para. 1 of the German Higher Education Act have been met if the applicant has successfully graduated from secondary school with a secondary school leaving certificate qualifying the applicant for admission to an institute of higher education (Hochschulreife).

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

(4) As part of the application for admission to the distance study programme "Nanotechnology," applicants must make a written declaration stating that an appropriate institution has agreed to allow them to do their Master’s thesis at that institution. The appropriate documentation from the facilitating institution is to be provided to the Department of Study Affairs before the end of the fourth semester. For this purpose, the form in Appendix 4 must be submitted to the Department of Study Affairs prior to the application deadline. If no documentation is received from the facilitating institution by this time, the student must contact the Distance & Independent Studies Center (DISC). This office will then examine the possibility, on the basis of exceptional circumstances, to complete the Master’s thesis within the University of Kaiserslautern.

(5) Classes and examinations are conducted in English. A declaration of English language proficiency has to be presented at the time of registration and can be based on:

1. Completion of an English language course during undergraduate studies
2. Common European Framework of Reference for Languages: C1
3. Cambridge Certificate of Proficiency (CPE): Grade C
4. IELTS: 6.0
5. TOEFL computer-based test: 213
6. TOEFL paper-based: 550
7. TOEFL Internet: 79

or an equivalent qualification, confirmed by declaration (see Appendix 2).

(6) If the supporting documentation for admission to the distance study programme reflects less than 210 ECTS credits (European Credit Transfer and Accumulation System), the student must provide proof of a relevant employment history in order to successfully complete the distance study programme. If the graduation transcript does not show any credit points (ECTS), the standard of 210 credit points (ECTS) is established by documenting an attendance period of at least 7 semesters. The relevancy requirement applies to the "Nanotechnology" master's programme. The complementary work experience must be documented prior to the end of the normal study period. As per section 2a, 180 ECTS credits are awarded after successfully completing the aptitude test.

(7) One year of recognised job experience, which must have been performed after obtaining an undergraduate degree, counts as 30 ECTS credits for the student. A maximum of 30 ECTS credits can be recognised. Overall, the sum of the ECTS credits from the graduation transcript and the recognised job experience must total at least 210 ECTS credits.

(8) The recognised job experience and the earned ECTS credits will be shown in the respective Master’s degree transcript. This is one of the prerequisites for successful completion of the distance study programme. Where applicable, the recognised ECTS credits are counted toward the mandatory portion of the distance study programme.

Sec. 2a Aptitude assessment
(1) An aptitude assessment is performed to determine if the professional qualification and the subject matter knowledge of the applicant are equivalent to a completed undergraduate degree. The aptitude test is an assessment of whether the applicant has acquired the required subject matter expertise to enable successful participation in the programme.

(2) The aptitude assessment consists of two parts: the application portfolio (as per sec. 2a para. 3) and the written exam (as per sec. 2a para. 5).

(3) Admission to the aptitude test is granted upon submission of an application, which must have been received by the application deadline determined by the Department of Study Affairs. The uniform form is provided by the Department of Student Affairs. The deadline for requesting an aptitude assessment is published on the homepage of the Distance & Independent Studies Center (DISC). However, the registration deadline for reviewing admission to the aptitude test ends no later than 31 January of each year.

The application has to be accompanied by a portfolio that must include the following documentation to establish the applicant's aptitude and ability to participate in the "Nanotechnology" distance study master's programme:

- A Letter of Motivation describing their educational goals and not exceeding a maximum of 3000 characters. The Letter of Motivation should include a detailed description of the applicant's previous development of expertise and should be supported by the associated documentation:
- Curriculum vitae,
- projects/remits,
- school certificates and apprenticeship certificates, if applicable
- Documentation of exam results performed in the context of continuing education programmes,
- Work performance evaluations or other experience-related references.

(4) An application for aptitude testing will only be rejected for one of the following reasons:

1. Missing or incomplete documentation as required per para. 3,
2. Work experience not applicable to the selected programme (as per sec. 2 para. 2),
3. Requirements of section 2 of these regulations not satisfied.

The decision is communicated to the applicant in writing by the Department of Study Affairs. If approved, an invitation to participate in the written part of the assessment will be sent.

(5) The written part of the aptitude assessment consists of a test, which is to be administered on a date determined by the Department of Study Affairs. The test duration must be at least one hour, but not longer than two hours. The responsible examiner decides what materials are allowed into the examination room; applicants will be informed about this decision together with the examination date.

(6) The written part of the aptitude assessment is corrected and evaluated by an examiner to be named by the Examination Board. The evaluation process is to
be completed within four weeks. Those who have reached at least 80% of the maximum score have passed the aptitude assessment (see Appendix 3).

The results of the written exam will be sent to the applicant in writing by the Department of Study Affairs if the exam has not been passed: if it has been passed, the results will be sent by the Distance & Independent Studies Center.

(7) The period of validity and opportunities for repetition are governed by the following:

1. If assessed as qualified to enter the postgraduate "Nanotechnology" distance study programme, the authorisation is valid to start courses in any one of the next three application periods.
2. Applicants who fail the assessment must wait for the next regularly scheduled aptitude assessment to try again. A failed aptitude assessment can only be repeated twice. In case of a make-up exam, the entire aptitude assessment has to be repeated.
3. Aptitude tests completed at another university are not a suitable substitute for the aptitude test prescribed by these regulations.

(8) A certificate of successful completion of the aptitude assessment is signed by the chairperson of the Examination Board.

**Sec. 3 Aim of the course and purpose of the examination**

(1) The aim of the Master's degree programme "Nanotechnology" is to teach a comprehensive theoretical and practical basis in the field of nanotechnology.

(2) The Master's examination in "Nanotechnology" represents the culmination of an advanced academic and professional qualification programme at the University of Kaiserslautern in the field of nanotechnology. The exam determines if the applicant has acquired extensive knowledge in the field of nanotechnology and an understanding of the relationships within this subject.

**Sec. 4 Academic degree**

Applicants who successfully complete the requirements of the Master's examination are awarded the academic title "Master of Science" (abbreviated M.Sc.) by the Department of Physics.

**Sec. 5 Duration, scope and structure of programme**

(1) The standard period of study is 6 semesters.

(2) The total course time required for successful completion of the master's programme comprises 86 semester hours per week (SWS). This corresponds to a total scope of effort that amounts to a minimum of 90 credit points (70 credit points for course work plus 20 credit points for the Master's thesis), as defined in the European Credit Transfer and Accumulation System (ECTS). The effort per credit point is 25 hours.

(3) The "Nanotechnology" distance study programme has graded and ungraded course requirements. The graded work includes tests, oral exams and the
Master’s thesis. The ungraded course requirements consist of the written homework submissions and the compulsory attendance at on-campus sessions.

(4) Credit points are awarded for successfully completed course and examination results according to the ECTS. They correspond to the time and effort generally required for the distance study programme assignments or attendance at the compulsory sessions, for the preparation and revision of the teaching exercises, and for the completion of the graded and ungraded assignments. The credit points are awarded upon completion of the course requirements, independent of the grades earned.

The course is designed with a modular structure (see appendix 1). The individual modules include subject-related course content.

Sec. 6 Needs of students with disabilities, disability compensation

Students with disabilities are allowed accommodation for their impairment in the form of additional aid and assistance, to the extent required to ensure fairness. This applies to impediments that exist unrelated to the qualifications being tested that could negatively influence the examination results. Any prolonged or physical disability, as well as any dispositions and peculiarities rooted in the character of the applicant; to the extent that these affect the proficiencies being tested, must be precluded. Measures taken to promote equal opportunity may include, for example, an appropriate extension to the period of testing or the administration of the exam in some other format. The disability must be credible and substantiated. The institution can require substantiation by medical certificate. The request for special accommodation must be submitted in writing to the Examination Board before registering to take the examination.

Sec. 7 Credits for periods of study, graded and non-graded work

(1) Credits for periods of study, graded and non-graded work in the same degree programme at a university or technical university in Germany are recognised without an equivalency assessment, to the extent that the course is accredited and there are no major differences in the modules regarding the skills taught. If credits are not recognised, the student must be notified of the reasons. The burden of proof lies with the university. Credit for parts of the Master’s exam may be refused if credit is to be given for more than half of the graded and ungraded work or the Master’s thesis.

(2) Periods of study, graded and non-graded work for other courses in the same degree programme but not yet accredited are recognised to the extent equivalence of content is determined by the Examination Board. A determination of equivalence is made when periods of study, graded work and non-graded work substantially have the same standards, content and scope as the corresponding course at the University of Kaiserslautern. No schematic comparisons are used, but rather an overall consideration and holistic assessment is performed. In recognising periods of study, graded and non-graded work performed outside of Germany, the agreements concerning equivalence as approved by the Standing Conference of the Ministers of Education and Cultural Affairs (KMK) and the German Rectors’ Conference as
well as partnership agreements made between institutes of higher learning are
taken into consideration.

(3) Paragraphs 1 and 2 apply for periods of study, graded and non-graded work
performed for state-approved distance study programmes, for multimedia-
supported graded and non-graded work as well as for graded and non-graded
work from early entrance students; paragraph 2 applies also for periods of study,
graded and non-graded work performed at other educational institutions,
especially at state, or state-approved universities of cooperative education as
well as at Technical and Engineering Colleges and Officers’ Universities of the
former German Democratic Republic.

(4) Partial credit can be awarded for periods of study, graded and non-graded work
that do not fully meet the requirements. In such cases, the criteria for determining
what, in what format, within what period and with what make-up options can be
accredited (conditional credit) are set by the Examination Board.

(5) Where the provisions of paragraphs 1 to 4 are satisfied, a legitimate claim to
receiving credit exists. Credit for periods of study, graded and non-graded work
performed in Germany is awarded ex officio. The credit award process for the
Master’s exam is initiated by the DISC upon request of the applicant. The
applicant is required to provide documentation to the Department of Study Affairs
that shows the grades, the credit points and the times for all graded work
completed for another programme or at another university. These documents
must clearly indicate any failed or repeated modules and exam-relevant course
work. The documents must be issued by the university where the graded exams
were taken. The determination of whether credit will be awarded is made by the
Examination Board, which has the right to obtain an independent opinion from a
subject-matter expert.

(6) The credit award process considers all graded and non-graded work – both
passed and failed – for which there is a corresponding requirement in the
"Nanotechnology" Master’s examination at the University of Kaiserslautern.
Graded or ungraded work previously attempted and failed elsewhere and later
retaken for the corresponding Master’s examination in "Nanotechnology" at the
University of Kaiserslautern will be considered as the first make-up exam. If
relevant graded or ungraded requirements are retested and failed, the
application for admission to the "Nanotechnology" Master’s examination at the
University of Kaiserslautern will be processed as an application for a second
repetition of the exam.

(7) Exam failures or unsatisfactory completion of non-graded requirements in the
"Nanotechnology" degree programme at another university count against the
authorised number of make-up exams. Further, exam failures or unsatisfactory
completion of non-graded requirements in the same modules or subjects in
another degree programme at another university also count as failures (to the
extent that the requirements for a passing grade were the same or lower).

(8) No credit is awarded for those courses used to authorise the student’s admission
to the "Nanotechnology" degree programme.

Part II: Examiners and Examination Board

Sec. 8 Examination Board and Department of Study Affairs
(1) Examination matters are handled by a Board of Examiners appointed by the faculty council of the Department of Physics. Administrative support for the Examination Board is provided by the Department of Study Affairs of the University.

(2) The Examination Board is composed of seven members. The chairperson, the deputy chairperson and the other members are appointed by the faculty council in the respective ratio 4:1:1:1 from a pool of professors, academic staff, non-scientific staff and students. The chairperson and the deputy chairperson must be professors tenured for life. In case of a tie vote, the chairperson casts the deciding vote. Section 25 para. 5 of the Higher Education Act is used for voting issues concerning graded and related ungraded work. The term of office for the student member is one year, while the appointment period of the other members is three years. There are no limitations regarding re-appointment.

(3) The duty of the Examination Board is to insure adherence to the provisions of the examination regulations.

(4) The chairperson of the Examination Board ensures that graded and ungraded work can be achieved within the allocated time. In this regard, the candidate shall be informed in a timely manner regarding the type and number of academic requirements to be achieved in the context of a course module as well as regarding the completion deadlines to be met and the dates and times for issue and submission of the Master’s thesis. The candidate shall also be informed of the respective make-up dates for each graded and ungraded requirement.

(5) The chairperson of the Examination Board regularly provides reports to the faculty council of the Department of Physics covering the topics of exams, the periods of study, the distribution of subject-specific and overall grades, and makes recommendations for changes to the examination regulations.

(6) The chairperson of the Examination Board regularly provides reports to the Examination Board regarding the admissions made and the transcript records issued.

(7) The members of the Examination Board have the right to attend all performance assessments and module exams.

(8) The meetings of the Examination Board are not open to the public. A representative of the Department of Study Affairs can participate in meetings of the Examination Board in a consultative role. The members of the Examination Board, the examiners, and the observers have a duty to observe official confidentiality. If not employed as public servants, they shall be bound by the chairperson to observe the confidentiality requirement.

(9) The examination board can delegate exam-related tasks to the Department of Study Affairs and to the DISC.

**Sec. 9 Examiners and assessors**

(1) The Master’s exam is administered by an examiner appointed by the Examination Board. The chairperson of the Board can appoint the examiner if so authorised by the Board.
(2) The examiners are university teachers, professors (up to one year into retirement), qualified university lecturers (Habilitierte), academic staff employed in accordance with section 56, para 1, item 2, Higher Education Act, contract teachers according to section 63, Higher Education Act, as well as teaching staff for special subjects according to section 58, Higher Education Act. The examiners may also be honorary professors and professionals with practical experience. The latter can be appointed in accordance with section 25, para. 4, item 2, Higher Education Act. According to sections 58 and 63 of the Higher Education Act, an examiner can be appointed for an exam only if teaching at the university level in the subject to be tested at present or having taught at this level within the past four semesters, or if able to present proof of relevant professional experience.

(3) The examiners prepare the exam questions, administer the exams and determine the grades. If this is an exam in which the candidate can lose his or her entitlement to take an exam once and for all (for example, if no further repetition is possible in case of failure), the exam must be administered by two examiners.

(4) The chairperson of the Examination Board ensures that the candidates are given the names of the examiners in a timely manner.

(5) Under exceptional circumstances, the Examination Board can delegate the appointment of exam monitors to the examiner. Only those persons with the corresponding Master's degree or Diplom or an equivalent examination can be appointed as assessors. The duties of an assessor include taking the minutes at oral examinations and supervising written exams; they can also be tasked with preliminary correction of written exam papers. If a candidate disrupts an exam, they are authorised to exclude said candidate from continuing the exam.

Part III: Master's Examination

Sec. 10 Examination modes

(1) The module examinations are used to determine whether the candidate has mastered the major relationships of the content and methods presented in the course and acquired the ability to independently put these skills and knowledge into practice.

(2) The exam requirements shall focus on the course content. The knowledge gained from previous classes shall only be tested to the extent required by the goal of the module examination specified in item (1).

(3) The graded work for a course module takes the form of seven supervised written tests.

(4) Oral exams are administered on an individual basis by an examiner in the presence of a qualified assessor. Before determining a final grade, the examiner consults with the assessor. This discussion takes place in private, not in the presence of the candidate. The oral examinations for every subject normally last 30 minutes for every candidate.
(5) The important topics and results of the oral exam shall be recorded in writing and shall be signed and dated by the examiner. The start and end times of the exam shall also be recorded.

(6) The students enrolled in the "Nanotechnology" degree programme may attend every oral exam as observers after requesting permission from the examiner, provided that none of the candidates has objected to this when registering for the exam. The request must be submitted to the Department of Study Affairs not later than 14 days before the scheduled date of the exam. Candidates with the same examination date are excluded from participating as observers. Upon request, the central equal opportunity representative or the equal opportunity representative of the Department of Physics may attend oral exams.

(7) A written notification of the grade is sent to the candidate after completion of the respective graded exam. Upon request, the candidate can be granted access to the corrected written exam, respectively the minutes of the oral exam, within one year after the final grade for an exam has been announced.

Sec. 11 Participation in on-campus sessions

(1) Attendance at on-campus sessions is mandatory in the distance study programme. Required participation in the on-campus sessions conveys in-depth knowledge to the students, which enables them to recognise and solve practical problems.

(2) The distance study programme has a total of five compulsory sessions. The students will be informed of the schedule and the content in writing at the start of each semester.

(3) Attendance at the respective sessions requires written registration to be accomplished within the deadline set by the Distance & Independent Studies Center.

Sec. 12 Written exams

(1) The written exams are intended to allow determining whether the candidates are able to comprehend and critically assess the interdependencies of their study subject relate specific questions to these contexts.

(2) An examination normally lasts at least 90 minutes, though never more than 180 minutes.

(3) Decisions concerning reference and other supplemental materials are up to the responsible examiner; the candidates will be informed about such matters in connection with the announcement of the exam date. The information is provided in written form by the Distance & Independent Studies Center (DISC).

(4) Registration for the respective test requires a written form to be submitted to the Distance & Independent Studies Center within the announced registration period. The required registration forms are sent to the candidate automatically and in a timely manner by the DISC. The DISC retains the right to conduct online registration for the on-campus sessions and the written exams. In this case, the individual student is identified through the registration and login procedure preceding the online registration form.
(5) All written exams are corrected and graded by an examiner appointed by the Examination Board. The evaluation process shall not exceed six weeks.

(6) Students whose permanent place of residence is abroad may submit a duly justified request to the Examination Board for permission to take the test at an external location. The Examination Board determines the required conditions for such a procedure and informs the candidate.

Sec. 13 Mail-in assignments

(1) An ungraded mail-in assignment shall be completed and submitted for each compulsory module (NT0001, NT0004, NT0011, NT0014).

(2) An ungraded mail-in assignment shall be completed and submitted for one of the three optional elective module (NT0005, NT0010, NT0013).

(3) These ungraded mail-in assignments are evaluated and count as course requirements. They must be completed in the same semester in which the corresponding compulsory module or optional elective module is taken; the deadline for submission is the last day of the semester. To receive an extension of the deadline, a written request must be submitted to the DISC prior to the deadline. The DISC will evaluate the request and notify the requester of the new submission deadline (generally, the last day of the next semester). A mail-in assignment received after the deadline has passed is assigned the grade of "insufficient."

(4) A student who receives a grade of "insufficient" on an ungraded mail-in assignment either due to late submission or because of the evaluation result must re-do and resubmit the mail-in assignment for the same compulsory module in some future semester. The new exercise will be assigned by the DISC after consultation with the examiner. There is no limit to the number of make-up attempts permitted to fulfil this core requirement.

(5) Each submitted mail-in assignment is corrected and evaluated by one of the examiners appointed by the Examination Board. The evaluation period shall not exceed eight weeks.

Sec. 14 Master's thesis

(1) The Master's thesis is a written achievement that demonstrates the candidate's ability to solve a problem in the field of nanotechnology independently according to scientific methods and within a prescribed period. The topic, problem definition, and scope of the Master's thesis are limited in scope by the supervisor in a way that ensures that the schedule and the deadlines can be met. The actual work effort involved in preparing the Master's thesis shall correspond to 20 credit points. The Master's thesis is generally performed at an institution external to the University of Kaiserslautern (sec. 2 para. 4). The topic of the Master's thesis should be related to a subject taught between the second and fifth semesters. The candidate shall be given the opportunity to propose a topic for the Master's thesis.

(2) The approval of the candidate's thesis topic by the supervisor is reviewed by the Examination Board. The date of approval/issuance shall be documented in
writing at the Department of Study Affairs. Work on the Master's thesis may only begin after the candidate has achieved the following minimum results:

1. Proof of successful completion of the graded and ungraded work performed in the first two semesters.
2. Proof of two passing exam grades from all of the achievements in the third to fifth semesters, as well as participation in two on-campus sessions in these semesters.

(3) Any university teacher engaged in teaching or research activities and other persons in accordance with section 9, para. 2 who are involved in the "Nanotechnology" distance study programme can serve as a supervisor for the Master's thesis. If, in exceptional circumstances, the Master's thesis is being completed within the University of Kaiserslautern, the approval of the chairperson of the Examination Board is required. An appropriate request must be submitted to the DISC together with the registration of the topic.

(4) The topic of the Master's thesis is issued by the Examination Board upon request by the candidate. The required forms are sent to the candidates in a timely manner at the start of the fifth semester.

(5) If, through no fault of their own, a candidate is not able to provide the required documentation, the Examination Board may make an exception to allow some other form of proof to be submitted.

(6) The approval of a candidate to submit a Master's thesis is granted by the Examination Board. If such approval is denied, the candidate is notified in writing by the Department of Study Affairs. The Examination Board can deny approval if one of the following applies:

1. There is a violation of a provision of these examination regulations;
2. The candidate has not met the prerequisites listed in this section;
3. The candidate has lost his or her eligibility for exams due to graded and ungraded work or comparable results in another programme at some other university or equivalent institution, or the candidate is already undergoing the examination process in a comparable programme at another university or equivalent institution.

(7) The Master's thesis shall generally be completed during the sixth semester while attending courses. Following the review and confirmation of the topic by the Examination Board, the candidate is notified in writing by the Department of Study Affairs of the topic of the Master's thesis as well as of the date of issuance and the due date for submission. The date of issuance is documented in writing.

(8) The time from issuance of the topic to the date of submission of the thesis (preparation time) is six months. If a duly justified request is submitted, the Examination Board may, in individual cases, grant an exception and extend the time allowed to complete the thesis by a maximum of three months. The request for extension must be received by the Department of Study Affairs not later than six weeks prior to the end of the completion time (date of postmark).

(9) An assigned topic can be rejected only once and then only within the first two months of the time allowed for completion of the thesis. If the topic is returned on time, a new topic must be registered within four weeks. The 6-month time allowed for completion begins with the approval of the second topic.
(10) When submitting the Master's thesis, the candidate must affirm in writing that he or she is the sole author of the work and that no sources or auxiliary materials other than those stated have been used, and that no identical or similar version of the work was used as a part of a previous graded work.

(11) Two copies of the printed and bound Master's thesis must be submitted to the Department of Study Affairs on time together with an additional copy in electronic format (PDF) stored on a data storage medium (CD or DVD). The submission date and time are recorded on the thesis itself. The thesis is then forwarded to the supervisor and the second reviewer for evaluation. If a thesis is not submitted on time, it is considered as being graded as "insufficient" (5.0). The evaluation period shall not exceed eight weeks.

(12) If a Master's thesis is evaluated as "insufficient" or "failed", a new topic can be issued and the thesis can be resubmitted once. The new topic of the Master's thesis must be registered within six weeks of the failure notice. If this deadline is missed, the failing grade for the Master's thesis will be recorded as the final grade. A return of the topic within the period of time stipulated in section 9 is only permissible if the candidate did not choose this option when writing the first Master's thesis. The Master's thesis can only be rewritten once.

(13) The Master's thesis is approved, supervised and evaluated by a university teacher or by another person authorised according to section 9 to administer examinations. Furthermore, the Master's thesis is evaluated by a second reviewer. One of the examiners must be a university teacher in the Department of Physics. The overall grade is determined by the arithmetic mean of the two grades. In the event one of the examiners awards the Master's thesis a grade lower than 4.0 and the other Examination Board to decide the final assessment of the Master's thesis, taking into account the previous two assessments.

(14) The Master's thesis shall be considered passed if it receives a minimum grade of 4.0.

Sec. 15 Master's examination

(1) The Master's degree examination is the final step towards achieving the professional qualification that comes with the successful completion of the continuing education distance study degree program "Nanotechnology" at the University of Kaiserslautern.

(2) The aim of the Master's degree examination is to certify that the candidate has acquired comprehensive knowledge in the field of nanotechnology as well as in an optional elective module and understands the interrelationships.

(3) The Master's degree examination includes graded and ungraded results (see Appendix 1) in addition to the graded Master's thesis. The method of performance assessment and the credit points are specified in Appendix 1.

(4) Course work is ungraded. The conditions for successful completion of ungraded requirements are determined by the examiner.

(5) The Master's degree examination is passed when all graded and ungraded course requirements and the Master's thesis have been successfully completed.
Part IV: Evaluation of Examination Results

Sec. 16 Registering for exams, admission

(1) Applications for admission to each examination (registration) are made in writing and submitted to the DISC within the registration deadline set by the Examination Board. In deciding whether or not the submission deadline has been met, the date of the postmark is decisive. In individual cases, the Examination Board can grant an exception to this rule.

(2) The application for admission to an examination (if it is not already on file at the Department of Study Affairs) must be accompanied by a statement explaining whether and, if so, how many times, the candidate has already attempted and failed to pass one or more exams in a "Nanotechnology" degree programme at a German university or equivalent exams in some other subject; if the candidate has lost eligibility in a "Nanotechnology" degree programme at another university, or if the candidate is currently involved in ongoing exam proceedings; in case exam results were insufficient or demanded a make-up exam, the statement should be accompanied by the required confirmations.

(3) If, through no fault of their own, a candidate is not able to provide the required documentation, the Examination Board may make an exception and allow some other form of proof to be presented.

(4) The Examination Board makes its admissions decisions based on the documents submitted.

(5) Candidates authorised to take an exam will be notified accordingly with reference to section 18, para. 4. Candidates who are denied admission will receive a written notification of this fact signed by the chairperson of the Examination Board.

Sec. 17 Evaluation of examination results

(1) The following grades are used for the evaluation of exam results and the Master's thesis:

   1 = Very good
      = an outstanding result;

   2 = Good
      = a result that is well above average requirements;

   3 = Satisfactory
      = a result that meets average requirements;

   4 = Sufficient
      = a result that meets requirements despite some shortcomings;

   5 = Insufficient
that extensions
candidate
A
exception
been
three
Over
period
A
examination
The
Any
prepare
case,
this
E
If
with
If
If
If
are
Only
module.
shall
candidate
failed.
If
assign
to
X
Examination
the
the
the
the
a
ed
candidate
In
4.3,
4.7,
5.3
are
that
missing
4.0,
the
examination
is
considered
failed. In
this
case
and
in
other
cases
where
the
result
is
insufficient,
the
candidate
will
be
notified
in
writing
by
the
Department
of
Study
Affairs. The
notice
shall
include
information
about
appeals
and
legal
remedies.
(3) To determine the overall grade
of
the
final
Master's
exam,
the
arithmetic
mean
is
calculated
using
grades
weighted
with
the
ECTS
points
for
the
respective
module.
Only
the
first
decimal
after
the
decimal
point
is
used
for
grading;
all
other
places
are
omitted
without
rounding. Consequently,
the
overall
grades
are:
If
the
average
is
between
1.1
and
1.5
(inclusive):
Very
good
If
the
average
is
between
1.5
and
2.5
(inclusive):
Good
If
the
average
is
between
2.5
and
3.5
(inclusive):
Satisfactory
If
the
average
is
between
3.5
and
4.0
(inclusive):
Sufficient.
If
the
calculated
grade
average
is
1.1
or
better,
the
overall
grade
is:
"Excellent
–
with
exceptional
merit."
(4) If the final examination
is
failed
or
counts
as
failed,
the
chairperson
of
the
Examination
Board
shall
inform
the
candidate
in
writing. The
letter
of
notice
in
this
case
shall
include
information
regarding
appeals
and
legal
remedies. In
this
case,
if
requested
by
the
candidate,
the
Department
of
Study
Affairs
shall
prepare
a
written
transcript
that
indicates
all
examination
results
and
assigned
grades.

Sec. 18 Make-up exams, deadlines, extensions, and absences
(1) Any examination
that
was
assigned
a
grade
lower
than
4.0
or
was
recorded
as
failed
may
be
retaken
once. Passing
grade
exams
cannot
be
retaken.
(2) The
initial
make-up
exam
for
a
failed
exam
must
be
taken
at
the
next
available
examination
date.
(3) A
second
make-up
exam
must
be
taken
during
the
exam
period
following
the
period
in
which
the
first
make-up
exam
was
taken
and
failed.
(4) Over
the
course
of
the
programme,
a
second
make-up
exam
is
possible
only
for
three
exams. The
eligibility
to
take
an
exam
is
therefore
lost
if
prior
to
the
respective
exam,
four
initial
make-ups
or
one
second
make-up
have
already
been
taken
and
failed. In
special
circumstances,
the
faculty
council
can
grant
an
exception
to
this
rule.
(5) A
missed
make-up
examination
counts
as
having
been
failed,
unless
the
candidate
is
not
responsible
for
missing
the
deadline.
(6) Extensions
and
absences
are
not
considered
when
determining
the
study
times
that
are
key
to
achieving
the
course
requirements
or
for
meeting
the
deadlines
for registration or an examination or a make-up, to the extent they are related to one or more of the following:

1. Participation in an officially recognised university board or committee, a student body or a student services organisation;
2. Illness, disability, or another reason for which the student is not responsible;
3. Pregnancy and child rearing; in these cases, the student must be enabled at least to make use of the statutory periods of time allowed by the Maternity Protection Act \((\text{Mutterschutzgesetz})\) as well as the periods of time stipulated by the German Federal Act on the Payment of Child Raising Benefit and Child Raising Leave \((\text{Bundeserziehungsgeld- und Elternzeitgesetz})\) regarding child raising leave;
4. Care for a dependent family member;
5. An official, subject-related study abroad programme for up to two semesters; this does not apply to study abroad periods that are prescribed by the examination regulation;
6. Unavoidable operational requirements in the context of a career-compatible, career-integrated or cooperative degree programme.

It is incumbent on the student to provide evidence.

(7) Submission dates are determined by the date of the postmark.

**Sec. 19 Withdrawal, non-attendance, cheating, infringements, invalidity of Master’s degree certificate**

(1) A candidate can withdraw from an examination just once without specifying a reason, provided he or she informs the Department of Study Affairs, either personally or in writing, not later than one week prior to the scheduled date of the examination. In case of written notification, the postmarked date is decisive. The examination must then be taken at the next available exam date.

(2) If the candidate does not withdraw on time and fails to appear for an exam without having a valid reason or if he or she withdraws after the start of an exam for no good reason, the examination will be assigned a failing grade.

(3) The reasons claimed for the late withdrawal or the failure to appear must be provided in writing to the Examination Board without delay, and must show credibility. In case of illness, the candidate must present a medical certificate to the Department of Study Affairs. In cases of doubt, a certificate issued by a physician named by the university may be demanded. The illness of a child for whom the candidate is predominantly the sole provider is deemed equivalent to the illness of the candidate himself/herself. If the Examination Board accepts the reason, the incident is handled like a proper withdrawal and a new examination date is scheduled.

(4) A candidate must be informed of the reason for any unfavourable decision in writing and without delay. The notice shall include information about legal remedies.

(5) If a candidate attempts to influence the result of an examination through deception or through the use of unauthorised materials, the respective exam result will be graded "insufficient" \((5.0)\). A candidate who disrupts the orderly
conduct of the exam can be barred by the respective examiner or observer from continuing the exam; in this case, the respective examination result will be graded "insufficient" (5.0). In serious cases, the Examination Board may bar the candidate from taking future examinations.

(6) If a candidate has cheated during an exam and if this act is only revealed after the transcript of records has been issued, the Examination Board can retroactively adjust the grade accordingly for those examinations where the candidate cheated. The examination can be declared, in whole or in part, as "insufficient." In this case, the procedures of paragraph 9 are applicable.

(7) Prior to the final decision, the candidate shall have an opportunity to make a statement.

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

(9) The improper transcript of records and possibly the Master's certificate and the Diploma supplement shall be seized and, if necessary, reissued.

Sec. 20 Record of the final exam, Master's degree certificate, Diploma supplement

(1) A transcript documenting a successfully completed Master's exam will be issued in English without delay, but not later than four weeks, specifying the grades achieved in all course modules of the distance study programme, the names of the respective examiners, the corresponding number of semester hours per week, the number of ECTS points, and the overall grade. Furthermore, all course sessions and subject areas covered by the distance study degree programme will be listed that require successful participation, respectively completion. On request by the graduate, the time required to complete the Master's degree programme can be noted in the transcript of records. In addition, on request by the graduate, the transcript shall reflect the ECTS degree that corresponds to the overall grade as well as the respective ECTS definition in accordance with the applicable assessment scheme of the European Credit Transfer and Accumulation System. The date of the transcript is the date on which the last examination was taken. The transcript shall be signed by the chairperson of the Examination Board and stamped with the state seal.

(2) The overall grade of the passed final examination is formed from the grades of all exams included in the Master's degree programme and the grade of the Master's thesis. The overall grade is calculated according to the provisions of section 17 para 3.

(3) In addition to the transcript of records of the Master's degree examination, the graduate receives a certificate showing the award of the academic degree pursuant to section 4 para. 6 (Master of Science) bearing the same date as the transcript of records. The certificate is written in English. The Master’s degree
Sec. 21 Invalidity of the Master's examination

(1) If a graduate has cheated on a graded or ungraded assignment and if this act is only revealed after the transcript of records has been issued, the examination board can retroactively adjust the grade accordingly for those graded and ungraded assignments where the candidate has cheated. The Master's exam can be declared, in whole or in part, as "insufficient."

(2) If the prerequisites for admission to the Master's examination were not fulfilled without any intention by the candidate to cheat and if this fact is only revealed after the transcript of records has been issued, then this fault is rectified by passing the Master's examination. If the candidate wilfully gained wrongful admission, the Examination Board shall make a decision in accordance with the applicable State Law on Administrative Procedure.

(3) Prior to a final decision, the candidate shall be given the opportunity to make a statement.

(4) An improper graduation transcript and the Diploma supplement shall be seized for possible correction and reissue. If the exam is declared "insufficient" on the grounds of cheating, the Master's degree certificate shall also be seized along with these documents. Any decision pursuant to paras. 1 and 2 is precluded after a period of five years from the date of the transcript.

Part V: Final Provisions

Sec. 22 Effective date

These regulations shall become effective on the date following their official publication in the Government Gazette of Rhineland Palatinate.

Kaiserslautern, dated 16 July 2012

Dean of the Department of Physics, University of Kaiserslautern
Prof. Dr. Michael Fleischhauer
Appendix 1

Performance requirements for the Master's exam

An overview of the programme modules incl. the semester distribution (Sem), the level of committal (LC), the scope of effort in weekly hours per semester (WHS), the credit hours awarded for satisfactory participation (ECTS), the type of class meeting (CT) and the evaluation method (EM) is provided below:

CM: Compulsory module, OE: Optional elective module, EX: Exam, MA: Mail-in assignment

<table>
<thead>
<tr>
<th>Sem.</th>
<th>Module</th>
<th>LC</th>
<th>WHS / ECTS</th>
<th>CT</th>
<th>EM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NT0001: Fundamentals of Quantum Mechanics</td>
<td>CM</td>
<td>6 / 5</td>
<td>Lesson text, Online tutorial</td>
<td>MA</td>
</tr>
<tr>
<td>1</td>
<td>NT0002: Fundamentals of Molecular Biology, Genetics</td>
<td>CM</td>
<td>5 / 5</td>
<td>Lesson text, Online tutorial On-campus weekend</td>
<td>EX</td>
</tr>
<tr>
<td>1</td>
<td>NT0003: Solid State Physics</td>
<td>CM</td>
<td>5 / 5</td>
<td>Lesson text, Online tutorial On-campus weekend</td>
<td>EX</td>
</tr>
<tr>
<td></td>
<td><strong>Semester 1</strong></td>
<td></td>
<td><strong>16 / 15</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>NT0004: Technology of Micro- and Nanoelectromechanical Systems</td>
<td>CM</td>
<td>5 / 6</td>
<td>Lesson text, Online tutorial On-campus weekend</td>
<td>MA</td>
</tr>
<tr>
<td>2</td>
<td>NT0005: Quantum Information Processing</td>
<td>OE (Physics)</td>
<td>(4 / 5)</td>
<td>Lesson text, Online tutorial On-campus weekend</td>
<td>MA</td>
</tr>
<tr>
<td>2</td>
<td>NT0006: Semiconductor Theory and Device Physics</td>
<td>CM</td>
<td>4 / 5</td>
<td>Lesson text, Online tutorial EX</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Semester 2</strong></td>
<td></td>
<td><strong>9(13) / 11(16)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NT0007: Analytical Techniques in Nanotechnology</td>
<td>CM</td>
<td>12 / 12</td>
<td>Lesson text, Online tutorial On-campus weekends in 3\textsuperscript{rd} and 4\textsuperscript{th} semester</td>
<td>EX</td>
</tr>
<tr>
<td></td>
<td>Part 1: Characterization of Nanostructures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part 2: Screening Methods in Biology, Chip Technologies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NT0008: Nanooptics</td>
<td>CM</td>
<td>5 / 6</td>
<td>Lesson text, Online tutorial EX</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part 1: Metamaterials and Photonic Crystals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Part 2: Plasmonics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Semester 3</strong></td>
<td></td>
<td><strong>17 / 18</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 4  | NT0009: Nanomaterials 1  
Part 1: Processing Ceramics and Composites and Their Applications  
Part 2: Physical and Chemical Synthesis of Nanoparticles | CM | 7 / 7 | Lesson text, Online tutorial | EX |
| 4  | NT0010: Nanomaterials 2  
Part 1: Nanotechnologically Modified Biomaterials  
Part 2: Carbon Nanomaterials | OE (Chemistry) | (4 / 5) | Lesson text, Online tutorial | MA |
| 4  | NT0011: Nanomaterials 3  
Part 1: Selfassembly | CM | 2 / 2 | Lesson text, Online tutorial | MA |
| Semester 4 | | | 9(13) / 9(14) | |
| 5  | NT0011: Nanomaterials 3  
Part 2: Computer Simulations and Modeling in Nanotechnology | CM | 2 / 3 | Lesson text, Online Tutorial | MA |
| 5  | NT0012: Transport in Nanostructures  
Part 1: Nanoelectronics  
Part 2: Nanomagnetism | CM | 7 / 7 | Lesson text, Online Tutorial  
On-campus weekend | EX |
| 5  | NT0013: Applications of Nanotechnology  
Part 1: Molecular Nanosystems: Sensors and Molecular Motors  
Part 2: Nanoparticles as Therapeutic Drug Carrier and Diagnostics | OE (Biology) | (4 / 5) | Lesson text, Online Tutorial | MA |
| 5  | NT0014: Nanotechnology in its Societal Context | CM | 2 / 2 | Lesson text, Online Tutorial | MA |
| Semester 5 | | | 11(15) / 12(17) | |
| 6  | Master’s thesis as per section 14 | Required | 20 / 20 | |
Appendix 2

First name, Last name

Street and house number

Postal code/City

Matriculation Number

Declaration of Proficiency in English

I hereby declare that I have sufficient English language skills to participate in the course of study in the English language. I can complete the degree requirements and examinations in English.

I have no formal certification. I acquired my language skills through the following activities or training (e.g. occupation or education):

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

__________________________ ______________________________
Place, Date (Signature)

Please send this declaration to the following address no later than 15 July:

Technische Universität Kaiserslautern
Abteilung für Studierendenangelegenheiten
Geb. 47/Raum 424
Gottlieb-Daimler Strasse
67663 Kaiserslautern, Germany
Appendix 3

Scoring for the evaluation of the written part of the aptitude assessment in accordance with section 2a paragraphs 5 and 6:

<table>
<thead>
<tr>
<th>Score</th>
<th>%</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 - 50</td>
<td>90 - 100</td>
<td>passed</td>
</tr>
<tr>
<td>40 - 44</td>
<td>80 - 89</td>
<td></td>
</tr>
<tr>
<td>35 - 39</td>
<td>70 - 79</td>
<td></td>
</tr>
<tr>
<td>30 - 34</td>
<td>60 - 69</td>
<td></td>
</tr>
<tr>
<td>25 - 29</td>
<td>50 - 59</td>
<td></td>
</tr>
<tr>
<td>20 - 24</td>
<td>40 - 49</td>
<td>not passed</td>
</tr>
<tr>
<td>15 - 19</td>
<td>30 - 39</td>
<td></td>
</tr>
<tr>
<td>10 - 14</td>
<td>20 - 29</td>
<td></td>
</tr>
<tr>
<td>5 - 9</td>
<td>10 - 19</td>
<td></td>
</tr>
<tr>
<td>0 - 4</td>
<td>0 - 9</td>
<td></td>
</tr>
</tbody>
</table>