

# Examination Regulations of the University of Stuttgart for the Master's Program Materials Science

**(Disclaimer: This English translation is not official. Only the German version is legally binding.)**

**Dated August 5<sup>th</sup>, 2016**

Based on §§ 19 (1) No. 9 and 32 (3) Sentence 1 of the Landeshochschulgesetz (State Law on Universities) of January 1<sup>st</sup>, 2005 (GBl, Journal of Laws 2005, p. 1), last amended by law on April 1<sup>st</sup>, 2014 (GBl, p 99), the Senate of the University of Stuttgart issued the following Program and Examination Regulations for the master's program Materials Science on May 4<sup>th</sup>, 2016.

The Rector of the University of Stuttgart has approved these statutes in accordance with § 32 (3) sentence 1 of the Landeshochschulgesetz (State Law on Universities) on August 5<sup>th</sup>, 2016, Az. 7831.175-M-03.

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## **Preamble**

The Program and Examination Regulations for the master's program Materials Science describe the structure of the curriculum of the program as well as the organization of examinations. It sets the rules and the legal basis for a uniform handling of the course of study and the evaluation of program achievements as well as examinations. It addresses both the students and the examiners, as well as the relevant organizations of the University of Stuttgart.

## **I. General**

### **§ 1 Purpose of Examination**

The master's examination constitutes a further professional qualification step in succession to the bachelor's degree. The aim of the master's examination is to establish whether the students have acquired the capability to deal independently with scientific problems in their field of specialization, to develop new methods and to apply them in complex situations.

### **§ 2 Master's Degree**

Based on the passed master's examination, the University of Stuttgart awards the academic degree "Master of Science" (abbreviated "M.Sc.").

### **§ 3 ECTS Credits and Modules**

(1) ECTS credits must be acquired in the master's program. They are a quantitative measure of the students' time-related workload. On average, 30 ECTS credits are to be earned per semester. This corresponds to a workload of about 900 hours. Earning ECTS credits requires successful participation in the courses or a successful completion of certain program achievements and is bound to the passing of the respective module examinations or partial module examinations.

(2) The master's program is divided into modules for which the ECTS credits are credited upon passing the respective module examination or partial module examinations. ECTS credits are only issued for a module once all program and examination requirements for the module prescribed in the annex to the Program and Examination Regulations and the Module Handbook have been successfully completed. The modules are comprised of content-coherent courses and usually cover one or a maximum of two semesters.

### **§ 4 Course Structure, Regular Period of Study, ECTS Credits**

(1) The regular period of study of the master's program is four semesters. It encompasses the module examinations including the master's thesis.

(2) The total number of ECTS credits to be credited for the attainment of the master's degree is 120. Of this amount, 30 ECTS credits are allocated to the master's thesis and 90 are earned through the examination program achievements during the course of study.

(3) ECTS credits can only be obtained by passing the module examinations with the grade "sufficient" (graded achievements) or "successfully attended" (ungraded achievements). The allocation of ECTS credits to the individual modules and courses in compulsory and compulsory elective courses is regulated in the annex to these regulations and the Module Handbook.

### **§ 5 Structure of Courses and Examinations**

(1) The master's examination consists of course-accompanying module examinations and the master's thesis.

(2) The students must earn 51 ECTS credits in compulsory modules, 30 ECTS credits in compulsory elective modules and 9 ECTS credits in elective modules. The modules are defined in the annex to these regulations.

(3) The master's program requires building a personal competence profile, by selection of two specialization subjects which guide the student to the level of current research. The chosen subjects of specialization are documented in the master's final grade report. They are selected from a predefined catalog in the Module Handbook. Upon request, the Examination Board may also authorize a specialization subject that is individually compiled, provided that the modules contained therein are coherently linked and thus allow formation of a competence profile. The master's thesis is usually related to one of the two selected specialization subjects. In addition, elective modules must be selected from a catalog of 9 ECTS credits. These modules can be used to acquire specialized knowledge (science, engineering) or for the acquisition of soft skills. When individually compiling the elective parts of the master's program, multiple assignments to and evaluation of the same modules or courses in different elective areas are not permitted. Modules that have already been completed in the bachelor's program cannot be

re-enrolled in or evaluated in the master's program (except for master's modules that have possibly been advanced, according to §5 of the Program Regulations for the bachelor's degree).

(4) A module that is part of a specialization subject may be changed for another in up to four cases by application to the Examination Office (Prüfungsamt) with an adequate explanation. This also eliminates the obligation to participate in further examinations in the previous module. This declaration can only be submitted as long as the entitlement to take examinations in the master's program Materials Science has not yet been definitively lost and only before all of the examinations required for the degree have been completed. The previous module that has been exchanged cannot be continued at a later date.

## **§ 6 Examination Deadlines**

(1) The examination entitlement for the master's program Materials Science expires if the master's examination has not been completed successfully within 8 semesters, unless the examinee is not responsible for failing the deadline. The Head of the Examination Board decides on this issue at the request of the examinee.

(2) Expectant mothers are not allowed to take examinations in the last six weeks before delivery, unless they expressly declare their willingness to take the exam. The declaration must be made in writing to the Head of the Examination Board and can be revoked at any time. Mothers of newborns are not allowed in the examinations until the end of eight weeks after delivery. For mothers with premature and multiple births, this period is extended to twelve weeks for premature births in addition to the period that could not be claimed under section (1). In the event of the death of the child, the mother can, at her express request, take examinations again before the expiry of these periods, if there is nothing contrary according to a doctor's certificate. She may revoke the statement at any time with the Head of the Examination Board.

(3) Students who live in the same household with a child under the age of eight, whom they are entitled to care for, and who are the sole care-providers for the most part, are entitled to take individual classes and examinations after expiry of the time limits set for this purpose. The Head of the Examination Board decides on the extension of the time limit at the request of the examinee. The due dates for re-examinations can only be extended for up to two semesters. The processing time for the master's thesis can usually only be extended within the set deadline in § 24 (4), last sentence; in justified exceptional cases, a further extension is also permissible, however it may not exceed twice the extension of the period according to § 24 (4), last sentence. The entitlement expires at the end of the semester in which the conditions set out in sentence 1 no longer apply. The deadline in section (1) is to be extended by a maximum of 6 semesters per child, provided the conditions of sentence 1 have been fulfilled for this period. In addition, the entitlement expires at the latest at the end of the semester in which the child has reached the age of eight. Students have to provide the respective proof. They are obligated to communicate any changes in the conditions immediately.

(4) Students who care for a close relative in accordance with § 7 Abs. 3 of the Long-Term Care Act ("Pflegezeitgesetz"), who is in need of care within the meaning of §§ 14.15 SGB XI, are entitled to individual program and examination achievements after expiration of the time limits provided for this purpose. The Head of the Examination Board decides on the extension of the period at the request of the examinee; The application must be accompanied by appropriate proof, which provides information particularly about the time required for the care. Deadlines for re-examinations and for the orientation examination can only be extended by up to two semesters; the duration of the master's thesis is subject to section (3) sentence 4. The eligibility expires at the end of the semester in which the prerequisites set out in sentence 1 no longer apply. The period set in section (1) shall be extended by a maximum of six semesters, provided the conditions of sentence 1 are fulfilled for this period. Students have to provide the appropriate evidence. They are obligated to communicate of any changes in the conditions immediately.

(5) Anyone who is unable to attend classes regularly or to provide the expected coursework due to a long-term illness, or due to a prolonged or permanent physical disability, is entitled to complete individual program and examination achievements after expiry of the deadlines stipulated in the examination regulations. The Head of the Examination Board decides on the extension of the time limit at the request of the examinee. The due dates for re-examinations can only be extended up to two semesters. Section (3) sentence 4 shall apply for the duration of the master's thesis; otherwise, the extension period shall not exceed two years. The examinee must provide the necessary evidence, in particular medical reports; in case of doubt, the university can request a medical report from a doctor appointed by the university. Notification must be given immediately in case there are any changes to the student's situation.

(6) If acting as an elected member in statutory committees or statutory departments of the university or the Student Union (Studierendenwerk) for at least one year, up to one academic year can be disregarded for the calculation of examination deadlines; At the request of the examinee, the decision rests with the Rector.

## **§ 7 Examination Board ("Prüfungsausschuss")**

(1) For the organization of the examinations and all other tasks assigned by these regulations, the Faculty of Chemistry forms an Examination Board. The Head of the Examination Board, the member representing the Head in case of absence, the other members and their deputies are appointed by the Faculty Council in the Faculty of Chemistry. The Examination Board consists of the following:

1. three university professors or unscheduled (apl.) professors, if they work full-time at the University of Stuttgart,
2. a member of the scientific research service,
3. a student (with an advisory vote).

The Examination Board may be headed by a professor or a full professor in the sense of No. 1. As a rule, the Head of the Examination Board leads the business of the Examination Board. In addition, the committee may revoke the delegation of certain tasks to the Head.

(2) The term of office of the members is three years, that of the student member one year.

(3) The Examination Board ensures that the provisions of these regulations are adhered to. The Board regularly reports to the faculty on the development of examination and periods of study as well as on the distribution of overall grades. The Examination Board must ensure that program and examination achievements can be completed or taken within the periods specified in these regulations. For this purpose, students should be informed promptly about the type and number of study classes and examination credits to be completed as well as the respective due dates.

(4) The members of the Examination Board have the right to be present at the exams.

(5) The members of the Examination Board and their substitutes are sworn to official discretion. The members must be sworn in to official discretion by the Head of the Examination Board, if they are not members of the public service.

(6) Any decisions of the Examination Board or its Head adversely affecting an examinee shall be reported to the examinee without delay in writing, stating the legal basis, and providing information on legal solutions. Objections to these decisions must be addressed in writing to the Examination Board within one month of notification of the decision. If the Examination Board does not allow an appeal, it must be submitted to the Vice Rector of Education (Prorektor/in für Lehre und Weiterbildung) for a decision.

## **§ 8 Examiners and Co-examiners**

(1) The Examination Board appoints the examiners. It can transfer this task to its Head. The examiner appoints the co-examiner.

(2) As a rule, only university professors, honorary professors and university or private lecturers are permitted to oversee the exam, as well as those members of the academic staff and appointed lecturers who have been legally entitled. Members of the academic staff and appointed lecturers can only be appointed examiners as an exception, if university lecturers and university lecturers or private lecturers are not available as examiners.

(3) In the case of program achievements and course-related examinations, the member of the teaching staff who taught the course is usually the appointed examiner, taking into account section (2).

(4) The co-examiner must have passed at least a master's examination in Materials Science or an equivalent examination.

(5) § 7 (5) shall apply to examiners and co-examiners, respectively.

(6) The examination dates and the names of the examiners are to be announced in due time to the examinees by public notice or in another suitable way. There is no legal right to be assigned a specific examiner.

## **§ 9 General Admission Requirements**

(1) For a module examination as well as a master's thesis, only those can be admitted who:

1. are enrolled at the University of Stuttgart at the time of the registration for the examination,
2. satisfy the admission requirements for the respective examination,
3. when applying for the master's thesis, certify the fulfilment of terms and conditions which may have been imposed as of the admission to the course of studies.

4. have not lost the examination entitlement in the master's program Materials Science or in a closely related course of study, the degree of which is equivalent to a college degree at a university or an equivalent higher education institution, college or college of applied sciences, dual university or vocational academy in Germany. In a related program, this only applies to the loss of entitlements in modules and exams that are also required in the master's program Materials Science (compulsory modules) as well as in the loss of examination entitlement, due to exceeding a deadline (e.g. maximum study duration). The previous sentence does not apply if the examination entitlement was lost in a diploma course of the same name. A closely related program is in particular a traditional diploma course in "Werkstoffkunde" or materials science. The Examination Board decides on which further programs are considered as closely related.

(2) The application for admission to an examination must be submitted to the Examination Office for each module examination in the form prescribed by the Examination Office. The application must be accompanied by the following information, if not already available to the university:

1. evidence that the admission requirements referred to in section (1) Nos. 1 to 4 are fulfilled and
2. a statement as to whether the examinee has already failed a master's examination or examination in a related degree program pursuant to section (1) No. 4, or whether the examinee is undergoing an examination in such a program.

(3) If it is not possible for the examinee to attach the documents in the prescribed manner, the Examination Board may, in individual cases, allow the evidence to be provided in a different way.

(4) If not all the evidence can be provided at the time of the registration for an examination, the admission to the examination may be given subject to the condition that the missing documents be submitted by the date of the examination. The examiner must verify that all previously missing application documents have been submitted before evaluating the examination.

(5) The Examination Board decides on admission. A person is admitted if the admission was not rejected within one month after the application was received at the Examination Office.

(6) Admission may only be rejected if

1. the prerequisites specified in section (1) are not fulfilled or
2. the documents are incomplete according to section (2) or
3. the examinee has lost the entitlement to participate in an examination in the master's program Materials Science or in a closely related course of study (sect. (1), No. 4) at a university or equivalent higher education institution in Germany or is registered in an examination procedure in such a course of study.

(7) The registration deadlines for the examinations are announced by the Examination Office of the University of Stuttgart.

## **§ 10 Module examinations, Program and Examination Achievements**

(1) The module examination consists of one or more program and / or examination achievements. Generally, the knowledge of a module's contents is tested with only one examination. Partial examinations are only permitted in exceptional cases where justified.

(2) Program achievements are

1. examination prerequisites,
2. ungraded reports of achievement
3. graded reports of achievement.

(3) Examinations are

1. written module examinations,
2. oral module examinations,
3. course-accompanying examinations.

(4) During a leave of absence, examinations that are not part of a course can be taken, but program achievements and course-accompanying examinations cannot.

(5) If, by presenting a medical report, an examinee can prove that he or she is unable to complete part or all of the examinations in the prescribed form due to persistent or permanent illness, the Head of the Examination Board shall allow the examinee to take examinations with a prolonged processing time or equivalent examinations in another form. The same applies to program achievements.

## **§ 11 Language of Instruction**

Courses are usually held in English. After prior announcement, courses can also be held in German. The program and/or examination achievements are usually in English. In agreement between the examiner and the examinee, program and examination achievements may also be accomplished in German.

## **§ 12 Program Achievements and Course-Accompanying Examinations**

(1) Program achievements and course-accompanying examinations are provided during the course of study in conjunction with a class. They are given by written or oral exercises (for example, homework, presentations, attestation of presence) or successful participation in lab classes.

(2) The type and scope of the program achievement or the course-accompanying examination and the date of the examination must be announced to all attending students by the lecturer of the class at the beginning of the semester.

## **§ 13 Oral Module Examinations**

(1) In oral examinations, the examinee should demonstrate that he/she recognizes the fundamentals and interrelations of the examined field of study and is able to classify specific questions in these contexts.

(2) Oral examinations, which are not completed during lectures, are performed with an examiner in the presence of a competent co-examiner, either in group examinations or in individual examinations.

(3) The duration of an oral examination is at least 20 and not more than 60 minutes. Similar to the duration of the examination according to sentence 1, the duration of the group examination is at least 15 and not more than 45 minutes per examinee. If the exact duration of the examination is not specified in the annex to these Examination Regulations, it shall be determined by the Examination Board upon suggestion of the examiner and shall henceforth be stated in the Module Handbook. At the latest it must be announced to the students at the beginning of the lecture period of the semester.

(4) The essential items of the discussion and the results of the oral examinations shall be recorded in the examination minutes which are to be signed by the examiner and the co-examiner. The result of the oral examination will be determined by the examiner in question after consulting the co-examiner and will be communicated to the examinee immediately after the examination.

(5) Students of the same master's program may, upon application, participate in oral examinations as listeners in accordance with the available places. The participation does not extend to the consultation and the announcement of the examination result. For important reasons or at the request of the examinee, the public must be excluded.

## **§ 14 Written Module Examinations**

(1) In written examinations, the examinee should demonstrate that, in a limited time and with limited resources, he/she can utilize the methods of their subject to identify a problem and find solutions.

(2) Written examinations are to be graded by the examiner. The evaluation process should be completed within four weeks. In addition, particularly for multiple-choice tasks and all other types of tasks that allow an automatic evaluation, the examination tasks, questions and answers, the weighting factor, the score of the individual examination tasks and the total score are determined by an examiner.

(3) Written examinations last at least 60, but not more than 120 minutes. If the exact duration of the examination is not specified in the annex to these Examination Regulations, it shall be determined by the Examination Board upon the suggestion of the examiner and shall be stated in the Module Handbook. It must be announced to the students at the latest at the beginning of the lecture period of the semester. A 60-minute written examination may be replaced with a 20-minute oral examination if a note is posted at the respective institute or announced in any other appropriate manner no later than two weeks after the examination registration deadline and at least four weeks prior to the examination.

(4) Written examinations may be carried out, in whole or in part, using a multiple-choice-type examination. The examiners of the respective fields are responsible for the task assignment and evaluation. The examination tasks must enable reliable results. For examinations following the multiple-choice procedure, several answer options are given for each question, of which only one is correct. Points for answering a question will only be awarded if only the correct answer option has been selected; malus points are not awarded.

(5) Written examinations in which at least 75% of the credits are earned by multiple-choice questions are considered passed if at least 54% of the minimum score is achieved. If the average score of the examination is below 60 % of the minimum score, the examination is considered passed if the proportion of points achieved is less than 10 % below the average score earned by the all students on the respective examination date.

(6) Before determining the result of an examination, the examiner is obliged to inspect the wording of all multiple-choice tasks for mistakes, considering the answers given. Incorrect tasks are not counted towards the total score.

### **§ 15 Computer-Aided Module Examinations**

(1) Computer-aided module examinations are examinations, similar to written examinations, which are performed on a computer under the supervision of university staff, and in which e.g. free text problems, fill-in-the-blanks problems, correlation problems or multiple-choice problems are to be answered. The answers are transmitted electronically by the student and, if possible, evaluated automatically. The contents of the examination are created by an examiner.

(2) Prior to the computer-aided examination, the examiner shall ensure that the electronic data can be clearly identified and clearly and permanently assigned to the student. The appropriate technical support ensures that a computer-aided examination proceeds smoothly. The examination takes place in the presence of a person who is competent in the respective field.

(3) All other conditions of a computer-aided examination are subject to the regulations that apply to written module examinations (§ 14 of these regulations).

(4) Differently than stated in § 14 (2), computer-aided module examinations are to be rated by two examiners if the first examiner suggests the grade be "insufficient" in the case of a repeated examination. In this case, one of the examiners must be a university professor or an honorary professor and the grade is calculated as the arithmetic mean of the individual ratings (§ 16 (2) sentence 3).

### **§ 16 Evaluation of Program and Examination Achievements, Module Grades**

(1) Program achievements in accordance with § 10 (2) Nos. 1 and 2 (examination prerequisites and ungraded reports of achievement) are given the rating "participated successfully" or "not participated successfully". The former equates to the grade "sufficient" (4.0) or better.

(2) Examination achievements and graded reports of achievement will be graded by the respective examiners according to the following scale:

1 = very good ("sehr gut")	= excellent performance;
2 = good ("gut")	= a performance that is significantly above the average requirements;
3 = satisfactory ("befriedigend")	= a performance that meets average requirements;
4 = sufficient ("ausreichend")	= a performance that, despite its shortcomings, still meets the requirements;
5 = insufficient ("nicht ausreichend")	= a performance that no longer meets the requirements due to significant deficiencies.

For a differentiated evaluation of program and examination achievements, the grades can be raised or lowered by the value of 0.3. The grades 0.7; 4.3; 4.7 and 5.3 are not awarded. If examination results are evaluated independently by several examiners, the grade is calculated using the arithmetic mean of the individual grades; section (3) sentence 3 applies accordingly.

(3) If a module consists of several program and/or examination achievements, the module grade is calculated from the weighted average of the grades of the individual program or examination achievements. The weighting of the individual program and examination achievements is regulated in the Module Handbook. The calculation takes into account only the first decimal place after the decimal point; all other digits are disregarded without rounding.

(4) The grades of the modules are:

(When averaged) up to 1.5	= very good,
(When averaged) from 1.6 to 2.5	= good,
(When averaged) from 2.6 to 3.5	= satisfactory,
(When averaged) from 3.6 to 4.0	= sufficient,
(When averaged) above 4.0	= insufficient.

The numerical module grade, calculated according to section (3), is added in brackets.

## **§ 17 Absence, Withdrawal, Deception, Regulation Violations**

(1) An examination achievement is considered "insufficient" if the examinee does not appear at an examination date without an adequate reason or if he/she withdraws from the examination after its beginning without an adequate reason. The same applies if a written examination is not completed within the specified processing time. Withdrawal from a registered examination (PL) without giving any reasons is possible up to 7 days before the scheduled date of the examination in the form stipulated by the Examination Office; for course-accompanying examinations (LBP) a withdrawal without stating reasons is only possible up until the end of the examination registration period. Sentence 3 does not apply to re-examinations.

(2) As a rule, the reasons invoked for a late withdrawal or an absence must be reported to the Head of the Examination Board and the examiner, before the date of the examination, credibly and in writing. In the event of illness, the Head of the Examination Board must be provided with a medical certificate promptly (usually within 3 working days), stating that the examinee is not able to take the examination. The anticipated duration of the invalidity is to be specified. If compliance with time limits for the initial registration of an examination, the repetition of examinations, the reasons for absence from examinations and the observance of processing times for examination work are affected, the examinee's illness is considered in the same fashion as the illness of a child that is predominantly cared for by the examinee as well as care for an ill close relative. The Head of the Examination Board is responsible for approving the request.

(3) If an examinee has knowingly or by negligent ignorance taken examinations despite an adequate reason for withdrawal, retroactive withdrawal is excluded for this reason. If the examinee did not promptly clarify any indication of a health impairment, this is considered negligent ignorance, in particular.

(4) If an examinee attempts to influence the result of his or her program or examination achievement by means of deception or by using unauthorized aids, the respective program or examination achievement or the master's thesis is deemed to be graded "insufficient". The penalty defined in sentence 1 may also be applied if an examinee carries unauthorized aids after the examination has been issued. An examinee who interferes with the proper conduct of the examination may be excluded from continuing the program or examination achievement by the examiner or the supervisor; In this case, the respective program or examination achievement is graded "insufficient". In serious cases, the Examination Board may exclude the examinee from passing further program and examination achievements.

## **§ 18 Passing and Failing**

(1) A module examination is passed if all examination achievements and graded reports of achievement have been graded at least as "sufficient" (4.0) in accordance with § 10 (2) No. 3 and all examination prerequisites and ungraded reports of achievement pursuant to § 10 (2) no 1 and 2 have been passed.

(2) The master's examination is passed when the master's thesis has been graded with at least "sufficient" (4.0) and all required module examinations have been passed.

(3) If the examinee has not passed a module examination or the master's thesis, a written notification with legal information is issued. In the case of module examinations, the examination result can also be announced in alternative ways.

(4) If an examinee has irrevocably failed the master's examination, upon presentation of the relevant supporting documents, the Examination Office will issue a certificate which contains the passed program and examination achievements and their grades, and which indicates that the master's examination has not been passed.

## **§ 19 Repetition of Examinations**

(1) Passed program and examination achievements cannot be repeated.

(2) Failed examination achievements and those considered as failed may be repeated once.

(3) A second repetition of examination achievements is only permitted in two cases. A second repetition of the master's thesis is not permitted.

(4) If the second repetition of a written examination is graded to be "insufficient" (5.0), an oral continuation of the repeat examination of about 20-30 minutes is scheduled promptly. This does not apply in the cases of § 17 (1), sentence 1, § 17 (4) and § 19 (5), sentence 2. The result of the repeat examination, if it was followed up with an oral examination, can only be assigned the grades "sufficient" (4.0) or "insufficient" (5.0). For the oral continuation of the repeat examination, § 13 applies.



(5) Repeat examinations have to be taken within two semesters. Otherwise, they will be graded as "insufficient" (5.0). If there are adequate reasons, the Head of the Examination Board may approve a withdrawal in accordance with § 17 (2). Semesters in leave of absence do not count towards the number of semesters according to sentence 1. The repetition of an examination should usually be made possible within a period of six months.

## **§ 20 Crediting of Periods of Study, Program and Examination Achievements**

(1) The Head of the Examination Board is responsible for recognition of program and examination achievements. The Head may submit doubtful cases to the Examination Board for a decision.

(2) If there is no significant difference to the achievements that are to be replaced, program and examination achievements, which were completed in a course of study at the University of Stuttgart or at other federal or federally recognized higher education institutions and vocational academies of the Federal Republic of Germany or in a course of study at foreign federal or federally recognized higher education institutions, are recognized. It is considered "no significant difference" if the content, learning objectives and scope of the modules essentially meet the requirements of the respective modules at the University of Stuttgart. The Examination Board may add additional prerequisites if the requirements to credit a program or examination achievement are only partially met. If foreign students in deviation from sentence 1 are favored by agreements between the Federal Republic of Germany and other nation states concerning the mutual recognition of equivalencies in higher education (equivalency agreement), the regulations of the equivalency agreement take precedence. The recognition of achievements can be refused if the master's thesis or more than one half of the total credit points of the master's examination are to be credited.

(3) Section (2) applies accordingly for periods of study, program and examination achievements in federally recognized distance learning courses; section (2) also applies to periods of study, program and examination achievements at other educational institutions, in particular at technical and engineering schools and officer schools of the former German Democratic Republic.

(4) If program and examination achievements are recognized, the grades, if the grading systems are comparable, are to be transferred and included in the calculation of the final grade according to the evaluation key specified in § 16. For incomparable grading systems, the grade "passed" is assigned. In this case, the achievements are not included in the calculation of the module grades and the final grade. Recognized external credits will be marked as such in the master's final grade report.

(5) If the requirements of sections (2) and (3) are met, students are legally entitled to be credited external modules. Program and examination achievements are credited upon request. The request must be submitted within two semesters after enrolling in the master's program or after returning from studying abroad; requests received after this period of two semesters are excluded. It is the responsibility of the applicant to provide the necessary information and documents on the achievements which are to be recognized. The burden of proof that a request does not meet the conditions for recognition rests with the body, referred to in section (1), which carries out the recognition procedure.

(6) If students have successfully completed program and examination achievements that are part of the master's program Materials Science whilst completing their bachelor's degree at the University of Stuttgart (premature modules), and if said achievements were completed in addition to the bachelor's program according to the respective Examination Regulations, those count towards the master's examination. If such program and examination achievements were not passed, the unsuccessful attempts also count towards the master's certificate.

(7) Periods of study from a previous study program are credited according to the recognized achievements. This means that the classification into a specific semester is based on the scope of the recognized achievements.

(8) Knowledge and skills acquired outside of higher education are credited, provided the same standards were applied in the process and they are equivalent in content to the program and examination achievements they are intended to replace. Section (5) sentences 2 to 4 apply for the accreditation respectively. The burden of proof that the requirements for accreditation are fulfilled lies with the student. Modules worth a maximum of 60 ECTS credits can be accredited; the recognition of the master's thesis is excluded. If, based on the evidence submitted, there is any doubt as to the acquisition of certain knowledge and skills, a classification examination may be scheduled. The classification examination can be oral or written. The scope and procedure of the classification examination must be designed in such a way that, considering the evidence provided, the examiners are given sufficient certainty about the existence of the knowledge and skills acquired in the modules in question. The Examination Board will appoint at least one examiner to carry out the classification examination; § 8 applies accordingly. In the case of accreditation, sections (4) and (6) apply accordingly.

## **II. Master's Examination**

### **§ 21 Purpose of the Master's Examination**

With the master's examination, the students prove that, in addition to the goal of their bachelor's program, they have acquired the ability to work independently on scientific questions in the area of Materials Science using suitable methods.

### **§ 22 Type and Scope of the Master's Examination**

(1) The master's examination consists of

1. the modules listed in the annex to these Examination Regulations,
2. the master's thesis.

(2) In the scope of the master's examination, examinations can be taken in up to three modules additional to those prescribed within these Examination Regulations (extra modules). At the request of the examinee, the result of these examinations shall be included in the final grade report. However, it is not taken into account when determining the overall grade.

### **§ 23 Internship [not applicable]**

### **§ 24 Master's Thesis**

(1) The master's thesis should show that the examinee is able to independently process a task in the field of Materials Science according to scientific methods within a specified period of time and to present the results in an appropriate manner. The master's thesis is worth 30 ECTS credits.

(2) The topic of the master's thesis is issued by a university professor, honorary professor, university lecturer or private lecturer, or any academic staff member who has been given examination authorization according to the legal regulations.

(3) The topic of the master's thesis is issued at the earliest when at least 50 ECTS credits have been acquired. If admission to the program has been granted with stipulations, compliance with those must be evident. After the thesis subject has been assigned by the examiner or examiners, the examinee must immediately register the master's thesis with the Examination Office. The topic and date of issue are to be recorded. The thesis topic can be changed only once and only within the first 2 months of the processing time.

(4) The maximum duration of the master's thesis is 12 months. The nature and scope of the task must be limited by the examiner to the extent that it corresponds to 30 ECTS credits (i.e. 900 working hours) and that this deadline can be met. At the request of the examinee, the maximum duration may be extended by the examination board for a maximum of 6 weeks for reasons beyond control of the examinee.

(5) The master's thesis is to be written in English or German. In addition to a printed text, the master's thesis may also contain multimedia parts on electronic data carriers, provided the topic requires this and the examiners have given their consent.

(6) Within the maximum period referred to in section (4), the master's thesis shall be submitted to the examiner in three bound copies upon completion. In addition, a copy must be submitted in electronic form. The date of submission must be documented. Upon submission, the examinee must assure in writing:

1. that they have personally written their own work or, in the case of group work, their correspondingly marked portion of the work;
2. that they did not use sources other than those specified, and all other literal or analogous passages from other works are cited respectively
3. that the submitted work was neither completely nor substantially covered by another examination procedure; and
4. not applicable
5. that the electronic copy is the same as the other copies.

(7) Part of the master's thesis is a presentation of 20-30 minutes duration covering its content.

(8) The master's thesis is evaluated by two examiners, one of whom is the examiner who has issued the topic of the thesis in accordance with section (2). One of the examiners must be a university professor, associate professor, private lecturer or honorary professor. They rate the master's thesis with one of the grades listed in § 16. The grade of the master's thesis is the average of the two individual grades. The evaluation process should be completed after no more than two months.

(9) The master's thesis can be repeated once if it is graded "insufficient" (5.0). However, in case of a repetition, the topic of the master's thesis may only be changed within the period specified in section (3) if the examinee has not made use of this option when completing the first master's thesis. The repetition of the master's thesis must be reported to the Examination Office within three months of the announcement of the examination result. Otherwise, the re-examination will be graded "insufficient" (5.0), unless the examinee is not responsible for the missed deadline. The decision on this issue lies with the Examination Board at the request of the examinee.

## **§ 25 Free Committee Rules [not applicable]**

## **§ 26 Determination of Final Grade and Final Grade Report**

(1) The final grade of the master's examination is the arithmetic mean of the numerical grades of the compulsory modules, the grades of the two specialization subjects, as well as the grade of the master's thesis, with the weights specified in the annex to these Examination Regulations. Within a specialization subject, the module grades are averaged according to the number of ECTS credits per module. If students choose modules that in combination exceed the prescribed number of ECTS credits in the specialization subjects, the weighting factors specified in the annex are not changed. § 16 (3) and (4) apply to the calculation accordingly.

(2) For outstanding achievements (overall grade 1.2 or better), the title "Very good with distinction" is awarded.

(3) If the examinee has passed the master's examination, he/she will receive a final grade report. In addition to the final grade, the grade report also includes the grades of the individual modules and the grade of the master's thesis as well as the title of the master's thesis. The final grade is given as a decimal number with one decimal place. The final grade report is signed by the Head of the Examination Board. It bears the date of the day on which the last examination was performed. An English translation of the certificate will be issued.

(4) The university issues a Diploma Supplement (DS) in accordance with the "Diploma Supplement Model" of the European Union/Council of Europe/UNESCO, which illustrates the profile of the program.

## **§ 27 University Degree and Master's Diploma**

(1) Upon completion of the master's examination, the degree "Master of Science" (abbreviated "M.Sc.") is awarded.

(2) With the final grade report on the master's examination, the graduate will receive a Master's Diploma bearing the date of the report. It certifies that the higher education degree was awarded in accordance with section (1). An English translation of the diploma will be issued.

(3) The Master's Diploma is signed by the Dean of the Faculty of Chemistry and the Rector of the University of Stuttgart and bears the seal of the university.

### **III. Final Provisions**

#### **§ 28 Inspection of Examination Records**

(1) Within one year after the completion of an examination procedure and within a reasonable time after placing a request the examinee shall be granted access to his/her written examination papers, the respective reports of the examiner and the examination minutes.

(2) The procedure of this inspection will be announced to the students in due time.

#### **§ 29 Invalidity of an Examination**

(1) If the examinee cheated during a program or examination achievement and this fact becomes known only after the final grade report has been issued, the grade of the program or examination achievement during which the examinee has cheated can be corrected. If necessary, the module examination can be graded "insufficient" and the master's examination can be declared as "failed".

(2) If the conditions for admission to an examination were not met although the examinee did not intend any deception, and this fact becomes known after the final grade report has been issued, this mistake is corrected by having passed the examination. If the examinee intentionally wrongly obtained the admission, the module examination can be graded "insufficient" and the master's examination can be declared as "failed".

(3) The examinee shall be given the opportunity to comment before a decision is made.

(4) The incorrect final grade report must be withdrawn and, if necessary, a new one must be issued. With the incorrect final grade report, the Master's Diploma shall also be withdrawn if the examination was declared "failed" due to a deception according to section (1). A decision pursuant to section (1) and section (2) sentence 2 shall be excluded after a period of five years from the date of the final grade report.

#### **§ 30 Effective Date and Transitional Regulations**

(1) These Examination Regulations come into effect as of October 01, 2016. At the same time, the Examination Regulations for the master's program Materials Science dated March 21, 2012 (Official Announcement No. 8/2012), last amended by the Statute as of August 17, 2012 (Official Announcement No. 61/2012), are suspended.

(2) It initially applies to students enrolling in the master's program Materials Science for the winter semester 2016/17. Students who already are enrolled in the master's program Materials Science at this time can switch to this revision of the Examination Regulations upon written application to the Examination Office. The application is irrevocable and must be submitted by October 31, 2016.

(3) Students who commenced their studies prior to the coming into effect of this statute can complete their studies according to the previously valid Examination Regulations, but no later than March 31, 2020.

Stuttgart, August 05, 2016

Prof. Dr.-Ing. Dr. h.c. Wolfram Ressel  
(Rector)

**Annex: Overview of the module examinations**

No.	Module	Mandatory/Elective <sup>(1)</sup>	Semester <sup>(2)</sup>				type of achievement <sup>(1)</sup>	Exam/ Duration <sup>(1,4)</sup>	ECTS-Credits	Weighting in final grade
			1	2	3	4				
<b>Compulsory Modules</b>										
1	Synthesis and Properties of Inorganic Materials	P	X				V	PL	6	6/120
2	Advanced Materials Science Laboratory	P	X	X			BSL		9	9/120
3	Atomic Transport and Phase Transformations	P		X			V	PL	6	6/120
4	Polymer Materials Science	P		X			V	PL	9	9/120
5	Advanced Science Seminar	P	X	X	X	X	USL		6	0
6	Practical Skills and Project Planning	P			X		USL		15	0
<b>Compulsory optional Modules<sup>(5)</sup> (total 9 ECTS-Credits)</b>										
7	Key qualifications unrelated to subject (SQ)	WP	X	X			USL		3	0
8	Subject related key qualifications	WP	X	X			USL		3	0
							BSL		3	0
							V, BSL		3	0
							USL		6	0
							BSL		6	0
								PL	6	0
							V	PL	6	0
								LBP	6	0
	PL	9	0							
	V	PL	9	0						
<b>Specialization Subjects<sup>(6)</sup> (total 30 ECTS-Credits)</b>										
9	Specialization I	WP	X	X	X	X	12-18 total			15/120
							BSL		3	
							USL,BSL		3	
								PL	6	
							V	PL	6	
								LBP	6	
							BSL		6	
								PL	9	
							V	PL	9	
							BSL		9	
								PL	12	
							V	PL	12	
10	Specialization II	WP	X	X	X	X	12-18 total			15/120
							BSL		3	
							USL,BSL		3	
								PL	6	
							V	PL	6	
								LBP	6	
							BSL		6	
								PL	9	
							V	PL	9	
							BSL		9	
								PL	12	
							V	PL	12	
<b>Master's Thesis</b>										
	Master's Thesis	P			X	X			30	60/120

## Explanations:

1. Explanation of abbreviations:
  - P = compulsory module; WP = compulsory elective module; W = elective module
  - V = examination prerequisite; USL = ungraded report of achievement; BSL = graded report of achievement
  - PL = module examination; S = written module examination; M = oral module examination;
  - LBP = course-accompanying examination
2. The semesters in which the module is to be completed are indicated by an "x". These are recommendations. An individual choice of the study order is permissible.
3. If only "PL" is specified in the column "Examination/Duration" or the duration of the examination is not regulated, the type and scope of the examination are regulated in the Module Handbook.
4. If the column "Examination/Duration" indicates "LBP", the type and scope of the examination will be announced by the lecturer at the beginning of the semester.
5. Modules worth a total of 9 CP must be completed. Modules from the University of Stuttgart's catalog of interdisciplinary key qualifications or modules from a catalog of subject-related courses (natural sciences, engineering), regulated in the Module Handbook, can be chosen. Subject to the approval of the Head of the Examination Board, suitable modules from other courses of study can also be chosen. If modules from other courses of study are chosen, the type and scope of the program and examination achievements to be provided in this case are based on the Examination Regulations and the Module Handbook of the course of study to which the modules are assigned.
6. The two specialization subjects form the core of the research-oriented education. They are selected from a catalog of predefined module containers in the Module Handbook, which can each consist of compulsory, compulsory elective, and elective modules. The individual course of study must be planned in such a way that at least 12 ECTS credits are allocated to each specialization subject and modules worth a total of 30 ECTS credits are successfully completed in both specialization subjects. At the request of the student, the Head of the Examination Board may approve a subject of specialization that has been put together individually if the modules provided therein are in a coherent context and allow a profile to be identified. An individual specialization subject may consist of modules from the existing specialization subjects and from other natural science and engineering degree programs. If modules from other courses of study are part of an individual specialization subject, the type and scope of the program and examination achievements to be provided depend on the Examination Regulations and the Module Handbook of the program to which the modules are assigned.
7. A double crediting of identical modules or courses in the elective areas No. 7 to No. 10 is not permitted. Modules that have already been completed in the bachelor's degree cannot be credited again (with the exception of premature master's modules according to §5 of the Examination Regulations of the bachelor's degree and § 20 (6) of these regulations).