Examination regulations for the
Master's degree programmes offered by the Department of Computing Science at Faculty II – Computing Science, Economics and Law of the Carl von Ossietzky University of Oldenburg

Non-official Version

29/05/2018[1]

On 11 April 2018, the Carl von Ossietzky University of Oldenburg decided on the following examination regulations in the version of 18.08.2017 (Official Notice 056/2017) for the Master's degree programmes offered by the Department of Computing Science at Faculty II – Computing Science, Economics and Law at the Carl von Ossietzky University, in accordance with Section 44.1.2 of the Lower Saxony Higher Education Act (NHG). These regulations were approved by the Presidential Chair on 2 May 2018 in accordance with Section 37.1.5b of the NHG.

Chapter 1

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[1] There may be transitional regulations for this degree-specific appendix, which may also affect you in your course of studies. Please refer to the official version of the Regulations (Section II) in the Official Notices at: https://www.uni-oldenburg.de/amtliche-mitteilungen/ for more information.

Section 1
Scope of application

These Master's examination regulations apply to the Master's degree programmes offered by the Department of Computing Science at Faculty II – Computing Science, Economics and Law of the Carl von Ossietzky University of Oldenburg.

Section 2
General learning outcomes

The degree programmes are research-oriented and designed to give students a comprehensive and in-depth knowledge of their chosen subjects. The objective of the Master's programmes is to prepare students for professional and academic careers and to lay the foundations for a PhD. Students learn to analyse subject-related problems in an interdisciplinary manner, to work responsibly and scientifically, and to present their findings coherently. To promote students' ability to identify, describe, solve and assess complex scientific problems, emphasis is placed on the development of creativity, original thinking and interdisciplinary cooperation. In addition, graduates must be capable of reflecting upon and communicating their knowledge, conclusions and rationally justified solutions effectively to both experts and a general audience.

Additional, degree-specific learning outcomes are outlined in the corresponding appendices to this document.

Section 3
Purpose of the examinations

By passing the examinations, graduates demonstrate that they have gained appropriate specialised knowledge and skills to enter into professional practice, have a good grasp of subject-related contexts, and are able to successfully apply scientific knowledge in practice and work in a scientific manner. The Master of Science programmes are concluded with examinations for a Master of Science degree which qualify graduates for professional practice. The examination requirements ensure a high standard of education in view of the standard period of study as well as the current state of scientific knowledge and the requirements of professional practice.

Section 4
University degree

After successfully completing all the required examinations, the Faculty of Computing Science, Economics and Law of the Carl von Ossietzky University of Oldenburg awards the university degree of 'Master of Science (MSc)'. The University of Oldenburg also issues a Master's degree certificate (Appendix 1.a) in English for those degree programmes which were taught in English or if the student submits a request to that effect (Appendix 1.b).

Section 5
Duration, scope and structure of the academic programme, ECTS credit points, part-time study

(1)   The academic programme is divided into four semesters and has a total student workload of 120 ECTS credit points. The standard period of study is two years. Each semester, students are required to attain 30 ECTS. One ECTS corresponds to an average student workload of 30 hours.

(2)   The Master's programme consists of modules relating to the chosen subject, with a total student workload of 90 ECTS, and the Master's thesis module with a student workload of 30 ECTS. More information can be found in the degree-specific appendices.

(3)   Modules may also be taught in English. Unless otherwise specified in the degree-specific appendix, the proportion of English-taught modules should not exceed 50%.

(4)   If permitted by the degree-specific appendix, the programme may be completed on a part-time basis in accordance with the Lower Saxony Higher Education Act (NHG). Part-time study is based on the currently applicable regulations for part-time studies at the Carl von Ossietzky University of Oldenburg.

Section 6
Examinations Board, Examination Office

(1)   A joint Examinations Board organises the examinations and undertakes the tasks stipulated in the examination regulations. This Examinations Board is appointed by the Faculty Council for the Master's degree programmes offered by the Department of Computing Science. The Examinations Board consists of five voting members: three professors or university lecturers, a member of staff active in teaching in at least one of these programmes, and a student following one of the programmes. The members of the Examinations Board elect a Chair and a Deputy Chair from their number. The chair and the deputy chair must be professors or university lecturers. The members and deputy members of the Examinations Board are nominated by their respective status groups within the Department of Computing Science. With regard to the assessment and crediting of examination results and academic performance, the student member only has an advisory vote. An employee of the Examination Office must also attend the meetings of the Examinations Board as an advisory member.

(2)   The Examinations Board ensures that the legal provisions of the Lower Saxony Higher Education Act (NHG) and these examination regulations are complied with. The Examinations Board also refers students to the examination rules applicable to them in an appropriate manner.

(3)   The Examinations Board takes decisions by a majority of valid votes cast. In the event of a tied vote, the chair decides. The Examinations Board may take decisions if the majority of its members, including the Chair or Deputy Chair and another member who is a professor or university lecturer, are present.

(4)   Members of the Examinations Board are appointed for a period of two years, apart from student members who are appointed for one year. The term begins on 1 April of each year.

(5)   The Examinations Board can adopt its own rules of procedure. Minutes are taken at the meetings of the Examinations Board. These minutes record the main topics of discussion and the decisions taken by the Examinations Board.

(6)   The Examinations Board may transfer powers, which can be revoked at any time, to the Chair or Deputy Chair. The chair prepares the decisions of the examination board.

(7)   Examinations Board meetings are not public. Members of the Examinations Board and their representatives are bound to secrecy concerning their office. If they are not already public servants, they will be bound to secrecy by the chair.

(8)   The Examination Office supports the affairs of the Examinations Board, implements its decisions and keeps the examination records.

Section 7
Examiners and co-examiners

(1)   The module examinations are assessed by subject specialists who are qualified and competent in the subject covered in the relevant module, as well as members of the teaching staff at this or another university. Professors, junior professors, academic and artistic staff, teaching staff appointed to carry out special tasks, guest lecturers, lecturers and retired professors who have dispensation can be appointed. Subject to the approval of the responsible Examinations Board, individuals with experience in professional practice and education may also be appointed as examiners.

(2)   The Faculty Council grants the necessary authorisation to assess module examinations. The examiners will inform the students about the module descriptions.

(3) Co-examiners may be called in to oral examinations, but they do not have the right to ask questions. The examiner must consult the co-examiner before deciding the final grade.

(4) Examiners and co-examiners must have a qualification that is at least equal or equivalent to the qualification established by the examination.

Section 8
Accreditation of study periods and examinations

(1) Periods of study that include vocational activities and examinations in the same or a related degree programme at a university or equivalent institution for higher education in Germany or another European country will be recognised without a special equivalence assessment.

(2) Periods of study that include vocational activities and examinations within a different degree programme will be recognised at the request of the student insofar as there are no fundamental differences regarding the acquired skills. The overall situation and assessment must be taken into account when deciding whether modules are to be credited. Fundamental differences must be verified by the university. Additional factual and legal information can be obtained from the Central Office for Foreign Education. Different rules concerning ECTS based on agreements with foreign universities will remain unaffected.

(3) Results gained outside of the university may be recognised (up to a maximum of 60 ECTS) on condition that an adequate academic basis and requirements for equivalence are met. If there is insufficient evidence, a knowledge test may be required.

(4) For the recognition of examination results achieved, grades and ECTS, if the grading and credit point awarding systems are comparable, are recognised and included in the calculation of the overall grade. In the case of different scopes or grading scales, the Examinations Board will decide on conversion. If grading systems are incomparable, an equivalence assessment will be carried out by people competent in the relevant subject area. If it is not possible to convert examination results achieved elsewhere, the assessment will be graded as a pass, notwithstanding the provisions of Section 13. Recognised examinations will be included in the transcript.

(5) The responsible Examinations Board decides on the recognition of previous results at the request of the student. The Examinations Board may delegate decision-making powers to a subject representative of that subject who then assesses the merits of the request to recognise previous results obtained in that subject. Section 6.4 will apply mutatis mutandis.

Section 9
Admission to modules and module examinations, additional examinations

(1) Students are entitled to study a module if they are enrolled in the corresponding Master's programme offered by the Carl von Ossietzky University of Oldenburg or are obliged to take the module in question on the grounds of an ancillary clause in a letter of acceptance or another administrative act, insofar as grounds for exclusion do not apply under Section 23.2. More information can be found in the degree-specific appendices.

(2) Students following Bachelor's programmes in a relevant subject can submit a founded application to take Master's modules and examinations ahead of time, completing these up to a total of 30 ECTS, as long as they have earned at least 120 ECTS in the Bachelor's programme. Modules that are compulsory for at least one degree programme with admission restrictions are not open to Bachelor's students.

(3) The examinations pertain to the modules and are held during the study programme. They must be sat at the end of the semester in which the last class or lecture of a module is offered.

(4) Students can apply to take module examinations in writing or electronically. Such requests must be made in good time before the date on which the examination is to take place. Students must register

for written examinations at least one week before the examination is scheduled to take place; module coordinators are responsible for setting the registration deadlines for other types of examinations.

(5) Subject to the approval of the relevant Academic Commission, permission to participate in a particular module may be subject to the student having successfully completed one or more other modules. This provision will be included in the relevant degree-specific appendix.

(6) Subject to the approval of the Academic Committee, admission to a module examination or the awarding of ECTS may be subject to the student's attendance record and/or active participation in one or more module activities, insofar as attendance or participation is required in order to achieve the learning outcomes of the class/lecture. These classes/lectures must convey the material in a practical and descriptive way or through dialogue between students and teachers.

Section 10
Structure of examinations, types of examinations

(1) The examinations pertain to the modules and take place during the study programme. There is generally one examination per module. Subject to the approval of the Academic Commission and the Faculty Councils, deviations from this rule may be permitted in exceptional cases with sufficient reason. Examinations may take the following forms:

- Written examination (10.2)
- Oral examination (10.3)
- Practical exercises (10.4)
- Formal presentation (10.5)
- Project (10.6)
- Practical work (10.7)
- Seminar paper (10.8)
- Portfolio (10.9)
- Other types of examination (10.10)

(2) In a written examination, candidates must demonstrate that they can identify a problem and find a solution in a limited period of time and while under supervision, using the resources provided and in accordance with the current methods applicable for the subject area. Examinations usually last 90-180 minutes.

(3) An oral examination is conducted by two examiners or one examiner and one expert co-examiner. This type of examination may be used on an individual or group basis. Oral examinations usually last between 20 and 60 minutes per candidate. The main subjects of the examination, the assessment/grading of the examination performance and the considerations on which the assessment is based must be recorded in a report. This report is then signed by the examiner and, if applicable, the co-examiner.

(4) Practical exercises consist of a series of independent written work on subject-specific or interdisciplinary tasks. The amount of time required to complete such exercises depends on the module. The module descriptions contain information regarding the amount and scope of individual assessments and the evaluation thereof. Practical exercises are usually only accredited in conjunction with a short oral or written examination. Examination and practical exercises are assessed as a whole.

(5) A formal presentation comprises a written discussion of a problem (about 15 pages), which students write independently, in which they discuss and evaluate relevant literature, plus an oral presentation of the written work followed by a discussion (30 to 60 minutes). The presenting student is also expected to actively participate in discussions following presentations by other seminar participants.

(6) In a project, students are expected to take on an active role in their project group, i.e. by taking on project-related tasks, such as project management and chairing project meetings, cooperating on the design, creation and documentation of the system to be created, contributing to the preparation of the necessary reports, presenting partial and interim results, sharing project-relevant knowledge and completing other project-relevant tasks.

(7)   Practical work includes the theoretical preparation, development and execution of a design task based on a case study or the performance of an experiment, plus a written paper detailing the work steps, progress and results of the experiment and the critical evaluation thereof.

(8)   A seminar paper is an in-depth written assignment, which students complete on their own, that is either of an interdisciplinary nature or specific to their degree programme. It usually comprises no more than 25 pages.

(9)   A portfolio usually comprises three to five assignments, for which the total student workload does not exceed that required for examinations within the meaning of Sections 10.2 to 10.8. A portfolio may not contain examination components as referred to in Section 10.1. Individual assignments are defined as followed:

- The creation and documentation of systems usually includes a description of the tasks and the limitations thereof, developing prerequisites for the task, in particular selecting suitable methods based on the discussion and evaluation of relevant literature, selecting suitable architectures, hardware components, modelling tools and software platforms, formulating algorithms used in a suitable modelling or programming language, testing the program in a simulated or real system environment, checking the results for correctness and documenting the solution to the problem, in particular by indicating the tools and methods used, the developed system components, the test environment and the results log.

- A log is the student's written report of a module component, usually practical work or a project.

- A short written examination usually lasts no more than 90 minutes.

- A short oral examination usually lasts no more than 20 minutes.

- A short formal presentation lasts no more than 20 minutes, whereby the student presents a subject in accordance with the current state of scientific knowledge using appropriate methods and media, plus a written report of no more than 10 pages.

Portfolios are assessed as a whole.

(10) Students do not receive an individual grade for active participation, unlike other assignments and examination components which are required as part of a course. In some courses, students may be required to actively participate in discussions and debates among themselves and with the teachers in order to acquire the necessary knowledge and skills for that particular course. Documented evidence of a student's active participation is a requirement for admission to the module examination. Students can meet this requirement by participating regularly in discussions, collaborating on tasks during classes/lectures and presenting solutions they have developed, etc. At the beginning of the course, the teacher determines the criteria for active participation in consultation with the students. They are then presented to the students clearly and in writing. The expected workload must also stipulated in this document, and this must be reasonable in light of the total workload for all the classes/lectures or module as a whole. The teacher defines the criteria for active participation. The minimum requirement for active participation is that the student is physically present at all the required lectures and classes. If the student has compelling reasons for being unable to attend one or more classes or lectures for a course, these reasons must be reported immediately and in the appropriate form to the lecturer no later than the fourth occasion per semester and per course on which the student misses a classes or lecture. The student must also provide suitable evidence (e.g. medical certificate or similar).If the student has compelling reasons for being absent for a longer period of time, the student in question must agree a work plan with their teacher detailing how they can still achieve the module's learning outcomes despite their absence. If the student is unable to attend more than half of the classes and lectures in one semester, it is not usually possible to create such a work plan.

(11) Other types of examinations and assignments for which ECTS are awarded are also possible in addition to the above-mentioned module examinations if provided for and defined in the degree-specific appendices.

(12)   Once the curriculum has been announced, in exceptional cases and with sufficient reason, it is possible to deviate from the type and number of classes and lectures as well as the type and number of

module examinations stated in the module descriptions, subject to the approval of the Academic Committee.

(13) If alternative forms of examination have been selected for a module, this will be announced accordingly at the beginning of each course.

(14) The examination usually takes place in the same language in which the course was taught.

(15) Module examinations in the form of group work (up to five students) are permitted. The scope and duration of an examination must be adjusted accordingly. In such cases, the examination component to be assessed for each individual candidate must be clearly defined and assessable as an individual examination component.

Section 11
Good academic practice

When submitting written work, including the Master's thesis, students must give written assurances, under oath, that they produced and designed the work independently without using any sources and aids other than those stated, and that they worked in accordance with the general principles of academic work and publications as laid down in the Guidelines for good academic practice at the University of Oldenburg. Written examinations are exempt from this rule.

Section 12
Compensation for circumstances of force majeure

If a candidate demonstrates that they are unable to take examinations entirely or in part due to illness or prolonged or permanent physical circumstances, e.g. a disability, or on the basis of protective provisions of maternity leave or on account of having to look after their own child, the Examinations Board must allow the student to take equivalent examinations in another form or with a corresponding extension of the time available. The student may be required to submit a medical certificate.

Section 13
Assessment of the module examinations and the Master's thesis

(1)   Each module is concluded with a module examination. If a pass is awarded in accordance with Section 13.2, the ECTS for that module will be awarded to the student.

(2)   Generally speaking, all module examinations and the final Master's module are assessed and graded in accordance with Section 13.3. Students pass a module examination if they attain at least a satisfactory. If a module examination is not graded, it must be assessed as a pass or a fail. All module examinations and the assessment thereof take place in the same semester in which the module is taught. The requirements for resits are stipulated in Section 15. The types of examinations are stipulated in Section 10. Examiners must communicate the grades they award for module examinations to the Examination Office within five weeks.

(3)   The following scale must be used for grading:

1 = very good: an outstanding performance
2 = good: above average performance
3 = satisfactory: average performance in all respects
4 = sufficient: the basic standards have been met but with a number of shortcomings
5 = insufficient: a performance that does not meet the requirements due to notable shortcomings

For a differentiated assessment, grades may be rounded up or down by 0.3 (grades of 0.7, 4.3, 4.7 and 5.3 are not permitted).

(4)   If the module descriptions provide for this, the grade of a passed module examination can be improved by bonuses up to a maximum of half a grade (0.5). Bonuses are course-related examinations

as described in Sections 10.4 and 10.9 for the portfolio. It must be possible to achieve the highest grade without bonuses.

Section 14
Withdrawal, absence, cheating

(1)   A fail is awarded for an examination component if the candidate

-   without valid grounds, fails to appear on the date of an examination

-   withdraws after the start of the examination

-   does not resit an examination within the designated time limit

(2)   Students may withdraw from an examination component without stating reasons up to one week before the date on which the examination is scheduled to take place. After that, withdrawal is only possible if valid reasons are given and accepted.

(3)   The Examinations Board must be notified without delay of any valid grounds for withdrawal or absence, in writing and together with evidence. Otherwise, the examination will be assessed as a fail. In the event of illness, a medical certificate must be submitted. If the reason or reasons given are accepted, a new deadline will be set. As a rule, this will be the next regular examination date. In this case, existing examination results will remain valid.

(4)   If the deadline for an examination component is not met, and no valid reasons are given, that component will be assessed as a fail. The clauses of Section 14.3 will apply mutatis mutandis. In cases in which there are valid reasons for not meeting a deadline, the Examinations Board will decide whether the deadline for the component can be extended, whether the results of that postponed component can count towards the final assessment or whether a new deadline can be set, taking into account the principles of equal opportunity and the precedence of academic achievements over compliance with procedural rules.

(5)   If a candidate attempts to influence the result of their performance in an examination by means of cheating or by other unauthorised means, the examination will be graded as a fail. Individuals who have violated the examination regulations may be barred from continuing the examination component concerned. In that case, the examination component in question will be graded as a fail. Before a decision is taken by the Examinations Board in line with clauses 1 and 2 of Section 14.5, the candidate will have the opportunity to be heard. The student will continue to qualify for the examination until the Examinations Board has taken a decision, unless the invigilator decides that temporary exclusion of the student is necessary for the proper conduct of the examination. In serious or repeated cases of fraud, the Examinations Board may bar the student from the examination procedure. In such instances, students will automatically be awarded a fail for the programme's Master's examination.

Section 15
Resits of module examinations and the Master's thesis, free attempt

(1)   If a student fails module examinations or partial module examinations, or those components are classified as fails, they may resit those components twice, with the exception of the project group and the Master's thesis. The project group and the Master's thesis may only be repeated once. The period between the first examination in a module and the last corresponding re-sit should not exceed 18 months, or 24 months for the project group. If a student fails all the resits, they are awarded a fail for the module examination.

(2)   Unsuccessful attempts to take an examination component or complete the Master's thesis in the same degree programme or a related subject at another university or equivalent institution for higher education in Germany or another European country will count towards the resit possibilities in accordance with Section 15.1.

(3)   Provided the degree-specific appendices do not contain any regulations to the contrary, a student may be given a free attempt to improve their grade for a module examination taken within the standard period of study, if that examination was an oral or written examination. Students may, upon request, also resit an examination that they passed on the first occasion. In such cases they sit the examination on the next scheduled examination date. The best result counts. Free attempts are not permitted for the Master's thesis module or the project group.

(4)   The new topic for the Master's thesis must be assigned within an appropriate period, usually within three months after the first thesis was awarded a fail.

Section 16
Certificates and transcripts

(1)   If a student has successfully completed all the modules necessary for the Master's degree and they satisfy all the requirements, a certificate will be issued without delay (Appendix 1.2). If the programmes were taught in English, or upon request, this certificate will be issued in English. The certificate will be accompanied by an overview of the module examinations passed (Transcript of Records) and a Diploma Supplement (in English). The date on the certificate is the date on which the final module was passed.

(2)   If a Master's programme is definitively failed, the student will receive a document to this effect.

(3)   If a student leaves the university or switches to a different degree programme, a certificate will issued, upon request, that shows the examination components passed and the grades and ECTS obtained. If Section 16.2 applies, the certificate will indicate that the degree programme in question has been failed definitively.

Section 17
Invalidity of examination results

(1)   If a candidate has cheated during an examination and this does not become known until after the grade has been determined or a certificate has been issued, the Examinations Board may adjust the grades retroactively for the examination components concerned and declare the examination to be totally or partly failed.

(2)   The candidate will have the opportunity to make a statement before the Examinations Board before a decision is taken.

(3)   The incorrect certificate will be revoked and replaced by a correct certificate. If an incorrect certificate is to be revoked the Master's degree certificate will also be revoked if the examination is graded as a fail on the grounds of cheating.

Section 18
Access to examination records

On request, after completing a module examination or the Master's thesis, a candidate is entitled to view the written examination papers, the examiner's comments, and the examination records. Such a request must be made within a year of notification of the grades, or notification that the student has failed the examination. The Examinations Board will determine the place and time of the candidate's access to their records.

Section 19
Appeal procedure

(1) Negative decisions and other unfavourable administrative acts based on these examination regulations must be announced in accordance with Section 41 of the Administrative Procedures Act (VwVfG; Verwaltungsverfahrensgesetz). Students may lodge an appeal with the Examinations Board, within one month of having access to their records, against decisions concerning examination grades in

accordance with Section 68ff of the Administrative Procedure Act (VwGO; Verwaltungs-gerichtsordnung).

(2)   The Examinations Board will decide on the appeal.

(3)   If the appeal concerns an examiner's assessment, before making its final decision on the matter the Examinations Board will forward the appeal to the examiner so that they are given the opportunity to comment. If the examiner changes the grade as a result of the appeal, „the Examinations Board will declare the complaint resolved. Otherwise, the Examinations Board will review the decision on the basis of the examiner's opinion, in particular to see whether

1. the examination was conducted in a proper manner

2. the grading was based on incorrect information

3. general marking principles were adhered to

4. an acceptable solution substantiated by consistent and sound arguments was judged incorrect

5. the examiner was influenced by irrelevant considerations

The same applies if an appeal is lodged against an assessment by more than one examiner.

(4)   The Examinations Board will appoint an expert for the appeal procedure at the request of the student. This expert must be qualified in accordance with Section 7.

(5)   The Examinations Board will issue its decision on the appeal within three months.

(6)   If the Examinations Board, in the event of a breach within the meaning of Sections 19.3.1 to 19.3.5, has not already upheld an admissible appeal at this stage of the procedure, or if the student puts forward concrete, substantial objections to the results of specific examinations without the examiner altering their decision accordingly, the examination components will be reassessed by examiners who have not been involved in the examination in question, or the oral examination will be repeated.

Section 20
Admission to the Master's thesis phase

(1)   For admission to the Master's thesis phase, students must be enrolled in the corresponding Master's programme at the Carl von Ossietzky University of Oldenburg and have proved that they have the necessary knowledge to undertake the Master's thesis by successfully completing modules with a student workload of at least 60 ECTS.

(2)   Applicants for admission to the Master's thesis must submit the following documents:

a. a proposal for the two examiners

b. a proposal submitted by the first examiner regarding the topic of the thesis

c. a declaration as to whether a Master's examination or parts of such an examination or another examination in a related subject area at a university or equivalent institution for higher education in Germany or another European country have been definitively failed or whether the student is currently involved in an examination procedure

(3)   The Examinations Board will decide on admission. Admission will be denied if

1. the admission requirements are not met

2. the documents provided are incomplete

3. another examination has been definitively failed within the same degree programme at another university or equivalent institution for higher education in Germany or another European country

Section 21
Master's thesis module

(1)   The Master's thesis module consists of the Master's thesis, an accompanying colloquium and a final colloquium which is open to the rest of the university. The Master's thesis must show that a candidate is capable of working independently on a problem from the chosen subject of study, within a fixed period of time using academic methods. The topic and assignment of the Master's thesis must correspond to the purpose of the examination (in accordance with Section 3) and the period of time allowed for the thesis (Section 21.4). The nature of the assignment and its implementation must be established when the topic is assigned. In the final colloquium, which is open to the rest of the university, the candidates defend their Master's thesis in a presentation (30 to 45 minutes) followed by a discussion.

(2)   The topic of the Master's thesis may be set by any professor or lecturer at the Carl von Ossietzky University of Oldenburg who is involved in teaching the Master's programme in question (first examiner). In justified individual cases, the Examinations Board may approve a topic set by other examiners in accordance with Section 7. The topic of the Master's thesis will be assigned via the Chair of the Examinations Board, and the assignment of the topic must be put on record. At the request of the student, the Examinations Board will ensure that the student is assigned a topic. Upon assignment of the topic, the examiner who has set the topic (the first examiner) and the second examiner are appointed in accordance with Section 7. The student will be supervised by the first examiner while working on the Master's thesis.

(3)   Students may work on the Master's thesis in the form of group work. In such cases, the examination component to be assessed for each individual candidate must be clearly defined and assessable as an individual examination component, e.g. based on chapters, page numbers or other objective criteria, and must meet the requirements laid down in Section 21.1. The group may comprise no more than three students.

(4)   As a rule, the Master's thesis must be submitted within six months of the topic being assigned. Students may submit a well-founded request to the Examinations Board to extend this period to nine months.

(5)   A Master's thesis topic can only be changed once, and only before the end of the first third of the total time available, i.e. two or three months, depending on the amount of time the student has been granted in accordance with Section 21.4. If a student has to resit the Master's thesis module, a Master's thesis topic may only be changed if the original topic for the first attempt was not changed.

(6)   The Master's thesis must be written in either German or English. More information can be found in the degree-specific appendices.

(7)   The Master's thesis must be submitted to the Examination Office in triplicate by the deadline; the time of submission must be recorded.

Section 22
Assessment of the Master's thesis module

(1)   The Master's thesis module is assessed in writing by the first examiner and the second examiner and in accordance with Section 13.3. The first and second examiners are required to document the main considerations on which the assessment was based. When assessing and evaluating the thesis, the examiners also take into account the student's progress while working on the thesis as well as the presentation at the final colloquium. If students worked as a group to complete their thesis, each student's individual contribution will be assessed as part of the overall work. Justification for the grade is included in the examination records along with the thesis. The presentation at the final colloquium and the assessment and evaluation procedure usually take place within twelve weeks of the student submitting the Master's thesis.

(2)   Upon submission of the thesis, the candidate may request that both examiners announce whether they have passed within a period of four weeks.

(3)   A student passes the Master's thesis module if both examiners award at least a sufficient for the thesis itself and a pass for the presentation at the final colloquium. The grade awarded for a Master's thesis module is the average of the individual grades awarded for the various assessment components in accordance with Section 13.

Section 23
Overall result, ECTS grade

(1)   The Master's examination is considered to have been concluded successfully once 120 ECTS credit points have been attained in accordance with the degree-specific appendix for these examination regulations and all module examinations including the Master's thesis have been passed.

(2)   The Master's examination is awarded a definitive fail within the meaning of Section 15.1 if the student fails a compulsory module, two elective modules, the project group or the Master's thesis module after exhausting all possibilities to resit those components.

(3)   The overall grade awarded for the Master's examination is determined by the Examinations Board. This overall grade is the average of the grades (which are weighted according to the ECTS credit points) awarded for the module examinations and for the Master's thesis module. The overall grade is accompanied by 'passed with distinction' if the overall result is between 1.0 and 1.1.

(4)   The overall grade will be listed as an ECTS grade, which reflects a relative assessment. The ECTS grade demonstrates how a student has performed in relation to other students in the same degree programme. Successful students receive the following grades:

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

(5)   The relevant grades awarded during the previous six semesters (cohort) before the date of the degree examination form the basis for the ECTS grade. An ECTS grade is issued if there are at least 30 graduates in the cohort.

(6)   Students may take examinations for modules other than those required for the Master's degree programme (additional examinations). Upon request, the results of the additional examinations will be included in the overview attached to the certificate (Academic Record) but they will not be taken into account when calculating the final overall grade.

Appendix 1
Certificates and testimonials

Appendix 1.1 a

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Carl von Ossietzky Universität Oldenburg

Fakultät für Informatik, Wirtschafts- und Rechtswissenschaften

Masterurkunde

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Frau/Herr*) .... geboren am .... in ....

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hat den Masterstudiengang ……………… [**mit Schwerpunkt ….]

an der Carl von Ossietzky Universität Oldenburg mit der Gesamtnote

....

erfolgreich abgeschlossen.

Ihr/Ihm*) wird der Hochschulgrad Master of Science (M.Sc.) verliehen.

Siegel

</div>

Oldenburg, den ....

_____   _____

Die Dekanin/Der Dekan*)   Die/Der*) Vorsitzende des Prüfungsausschusses des
                                                            Masterstudiengangs

Notenskala: mit Auszeichnung, sehr gut, gut, befriedigend, ausreichend.

*) Zutreffendes einsetzen

** ggf. streichen

Appendix 1.1 b

School of Computing Science, Business Administration, Economics, and Law

Carl von Ossietzky University Oldenburg

Master of Science Diploma

Ms./Mr. *)..., place of birth: ...., date of birth: ....,

was admitted to the Degree of "Master of Science in …………….." [with specialization in ……………..**]

at the Carl von Ossietzky University of Oldenburg with the overall grade

…………………………………

successfully completed.

She/He is awarded the degree of Master of Science (M. Sc.)

Official Seal:

Date ....

_____   _____

The Dean of School   The Chairman of the Examination Board

Grades: very good, good, satisfactory sufficient
*) Insert as appropriate
**) if necessary, delete

Appendix 1.2 a

Carl von Ossietzky Universität Oldenburg

- Fakultät für Informatik, Wirtschafts- und Rechtswissenschaften -

Zeugnis

über den erfolgreichen Abschluss des Masterstudiengangs …………

Frau/Herr*) .... geboren am ………................. in ....

hat den Masterstudiengang ………… [mit dem Schwerpunkt ………………**]

an der Carl von Ossietzky Universität Oldenburg mit der Gesamtnote

....

erfolgreich abgeschlossen.

Masterarbeit: …………………………………..

Note der Masterarbeit: ……………………..

Liste der Module mit Noten……………………

Siegel ....

Oldenburg, den …………….

....
Die/Der*) Vorsitzende des Prüfungsausschusses

Notenskala: mit Auszeichnung, sehr gut, gut, befriedigend, ausreichend.

*) Zutreffendes einsetzen. **) ggf. Streichen

Appendix 1.2 b

School of Computing Science, Business Administration, Economics, and Law

Carl von Ossietzky University Oldenburg

Certificate and Academic Record

Ms./Mr. …………… born ……….. in ………………………..

has successfully completed the Master Program

………. (with specialization in ……………..)

at the University of with the overall grade …………..

Subject of Master's thesis: …………………………………………………………...

Grade of Master's thesis: …………..

List containing the modules passed and results: ………………………….

Official seal …………………………….

Oldenburg, Date issued ……………

…………………………………………..
Chair of Examination Committee

Grades: very good, good, satisfactory sufficient
*) Insert as appropriate
**) if necessary, delete

Appendix 2

Master's modules offered by the Department of Computing Science

The following abbreviations are used in the following overview of modules:

- MT: Master's thesis
- P: Practical Work
- PG: Project group
- S: Seminar
- L: Lecture
- EC: Exercise Class
- TPS: Theory-and-praxis seminar

Module code	Module name	English module name	Type and number of classes/lectures	ECTS credit points	Type and number of module examinations
mam	Masterarbeitsmodul	Master Thesis Module	1 MT 1 S	30	Completion of the Master's thesis and defence thereof at a final colloquium
inf900	Projektgruppe	Project Group	1 P	24	Project
inf006	Softwaretechnik II	Software Engineering II	1 L 1 S	6	Portfolio
inf008	Informationssysteme II	Information Systems II	1 L 1 EC	6	Written examination or oral examination
inf018	Medienverarbeitung	Media Processing	1 L 1 P	6	Practical exercises
inf100	Mensch-Maschine-Interaktion	Human Computer Interaction	1 L 1 P	6	Portfolio
inf105	Fehlertoleranz in verteilten Systemen	Fault tolerance in distributed Systems	1 L 1 EC or 1 L 1 S	6	Written examination or oral examination or practical work
inf108	Requirements-Engineering und Management	Requirements Engineering and Management	1 L 1 EC	6	Portfolio
inf109	Informationssysteme III	Information Systems III	1 L 1 EC	6	Written examination or oral examination
inf111	Fortgeschrittenenpraktikum Datenbanken	Advanced Database Lab	1 P	6	Practical exercises and oral examination
inf112	Praktikum Moderne Programmiertechnologien	Modern Programming Technologies Lab	1 P	6	Practical exercises and oral examination
inf113	Betriebssysteme II	Operating Systems II	1 L 1 EC	6	Written examination or oral examination
inf131	Advanced Topics in Human Computer Interaction	Advanced Topics in Human Computer Interaction	1 L 1 P	6	Project and oral examination
inf170	Spezielle Themen aus dem Gebiet 'Informationssysteme' I	Special Topics in 'Information Systems' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf171	Spezielle Themen aus dem Gebiet 'Informationssysteme' II	Special Topics in 'Information Systems' II	2 of L, S, EC, P	6	Written examination or

					portfolio or formal presentation or oral examination
inf172	Aktuelle Themen aus dem Gebiet 'Informationssysteme' I	Current Topics in 'Information Systems' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf173	Aktuelle Themen aus dem Gebiet 'Informationssysteme' II	Current Topics in 'Information Systems' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf174	Spezielle Themen aus dem Gebiet 'Medieninformatik und Multimedia-Systeme' I	Special Topics in 'Media Informatics and Multimedia Systems' I	1 L 1 EC	6	Written examination or portfolio or formal presentation or oral examination
inf175	Spezielle Themen aus dem Gebiet 'Medieninformatik und Multimedia-Systeme' II	Special Topics in 'Media Informatics and Multimedia Systems' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf176	Aktuelle Themen aus dem Gebiet 'Medieninformatik und Multimedia-Systeme' I	Current Topics in 'Media Informatics and Multimedia Systems' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf177	Aktuelle Themen aus dem Gebiet 'Medieninformatik und Multimedia-Systeme' II	Current Topics in 'Media Informatics and Multimedia Systems' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf178	Spezielle Themen aus dem Gebiet 'Softwaretechnik' I	Special Topics in 'Software Engineering' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf179	Spezielle Themen aus dem Gebiet 'Softwaretechnik' II	Special Topics in 'Software Engineering' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf180	Aktuelle Themen aus dem Gebiet 'Softwaretechnik' I	Current Topics in 'Software Engineering' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf181	Aktuelle Themen aus dem Gebiet 'Softwaretechnik' II	Current Topics in 'Software Engineering' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf182	Spezielle Themen aus dem Gebiet 'Systemsoftware und verteilte Systeme' I	Special Topics in 'System Software and Distributed Systems' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf183	Spezielle Themen aus dem Gebiet 'Systemsoftware und verteilte Systeme' II	Special Topics in 'System Software and Distributed Systems' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination

inf184	Aktuelle Themen aus dem Gebiet 'Systemsoftware und verteilte Systeme' I	Current Topics in 'System Software and Distributed Systems' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf185	Aktuelle Themen aus dem Gebiet 'Systemsoftware und verteilte Systeme' II	Current Topics in 'System Software and Distributed Systems' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf300	Hybride Systeme	Hybrid Systems	1 L 1 EC	6	Project
inf301	Hardwarenahe Systementwicklung	Machine-oriented Systems Engineering	1 L 1 P	6	Portfolio
inf303	Fuzzy-Regelung und künstliche neuronale Netze in Robotik und Automation	Fuzzy control and Artificial Neural Networks in Robotics and Automation	1 L 1 EC	6	Practical exercises and oral examination
inf305	Medizintechnik	Medical Technology	1 L 1 EC	6	Portfolio
inf307	Robotik	Robotics	1 L 1 EC	6	Portfolio or written examination or oral examination
inf308	Mikrorobotik II	Microrobotics II	1 L 1 EC	6	Practical exercises and oral examination
inf311	Low Energy System Design	Low Energy System Design	1 L 1 EC	6	Project or practical exercises with oral examination
inf330	Embedded Systems	Embedded Systems	1 L 1 EC	6	Written examination or oral examination
inf331	Automated and Connected Driving	Automated and Connected Driving	1 L 1 EC	6	Practical work or oral examination
inf332	Practice Robotics	Practice Robotics	1 L 1 EC	6	Formal presentation and seminar paper
inf333	Sensor Technology in the Automotive Domain	Sensor Technology in the Automotive Domain	1 L 1 EC	6	Practical exercise and oral examination
inf334	System Level Design	System Level Design	1 L 1 EC	6	Practical exercises and oral examination
inf335	Strategy Synthesis	Strategy Synthesis	1 L 1 EC	6	Written examination or oral examination
inf336	Application Area Automotive	Application Area Automotive	1 L 1 EC	6	Practical work or oral examination
inf338	Design of Autonomous Systems	Design of Autonomous Systems	1 L 1 EC	6	Formal presentation
inf350	Spezielle Themen aus dem Gebiet 'Sicherheitskritische Systeme' I	Special Topics in 'Safety-Critical Systems' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf351	Spezielle Themen aus dem Gebiet 'Sicherheitskritische Systeme' II	Special Topics in 'Safety-Critical Systems' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf352	Aktuelle Themen aus dem Gebiet 'Sicherheitskritische Systeme' I	Current Topics in 'Safety-Critical Systems' I	1 L or 1 S	3	Written examination or portfolio or formal

					presentation or oral examination
inf353	Aktuelle Themen aus dem Gebiet 'Sicherheitskritische Systeme' II	Current Topics in 'Safety-Critical Systems' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf354	Spezielle Themen aus dem Gebiet 'Hybride Systeme' I	Special Topics in 'Hybrid Systems' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf355	Spezielle Themen aus dem Gebiet 'Hybride Systeme' II	Special Topics in 'Hybrid Systems' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf356	Aktuelle Themen aus dem Gebiet 'Hybride Systeme' I	Current Topics in 'Hybrid Systems' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf357	Aktuelle Themen aus dem Gebiet 'Hybride Systeme' II	Current Topics in 'Hybrid System' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf358	Spezielle Themen aus dem Gebiet 'Hardware-/Software-Systeme' I	Special Topics in 'Hardware/Software Systems' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf359	Spezielle Themen aus dem Gebiet 'Hardware-/Software-Systeme' II	Special Topics in 'Hardware/Software Systems' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf360	Aktuelle Themen aus dem Gebiet 'Hardware/ Software Systeme' I	Current Topics in 'Hardware/Software Systems' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf361	Aktuelle Themen aus dem Gebiet 'Hardware/ Software Systeme' II	Current Topics in 'Hardware/Software Systems' II	1 L or 1 S	3	Written exam or Portfolio or Formal presentation or oral examination
inf366	Spezielle Themen aus dem Gebiet 'Mikrorobotik und Regelungstechnik' I	Special Topics in 'Microrobotics and Control Engineering' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf367	Spezielle Themen aus dem Gebiet 'Mikrorobotik und Regelungstechnik' II	Special Topics in 'Microrobotics and Control Engineering' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf368	Aktuelle Themen aus dem Gebiet 'Mikrorobotik und Regelungstechnik' I	Current Topics in 'Microrobotics and Control Engineering' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf369	Aktuelle Themen aus dem Gebiet 'Mikrorobotik und Regelungstechnik' II	Current Topics in 'Microrobotics and Control Engineering' II	1 L or 1 S	3	Written examination or portfolio or formal

					presentation or oral examination
inf374	Spezielle Themen aus dem Gebiet 'Automotive' I	Special Topics in 'Automotive' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf375	Spezielle Themen aus dem Gebiet 'Automotive' II	Special Topics in 'Automotive' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf376	Aktuelle Themen aus dem Gebiet 'Automotive' I	Current Topics in 'Automotive' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf377	Aktuelle Themen aus dem Gebiet 'Automotive' II	Current Topics in 'Automotive' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf450	Korrektheit von Graphprogrammen	Correctness of Graph Programs	1 L 1 EC	6	Oral examination:
inf451	Komplexitätstheorie	Complexity Theory	1 L 1 EC	6	Practical exercises and written examination or oral examination
inf453	Kombination von Spezifikationstechniken	Combination of Specification Techniques	1 L 1 EC	6	Practical exercises and written examination or oral examination
inf454	Kommunizierende und mobile Systeme	Communicating and Mobile Systems	1 L 1 EC	6	Practical exercises and written examination or oral examination
inf456	Realzeitsysteme	Real-Time Systems	1 L 1 EC	6	Practical exercises and written examination or oral examination
inf458	Termersetzungssysteme	Term Rewrite Systems	1 L 1 EC	6	Practical exercises and written examination or practical exercises and oral examination
inf460	Security	Security	1 S or 1 L	3	Written examination or oral examination or formal presentation
inf461	Security of Cyber-Physical Systems	Security of Cyber-Physical Systems	1 S or 1 L	3	Written examination or oral examination or formal presentation
inf480	Spezielle Themen aus dem Gebiet 'Parallele Systeme' I	Special Topics in 'Parallel Systems' I	2 of L, S, EC, P	6	Written examination or portfolio or formal

					presentation or oral examination
inf481	Spezielle Themen aus dem Gebiet 'Parallele Systeme' II	Special Topics in 'Parallel Systems' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf482	Aktuelle Themen aus dem Gebiet 'Parallele Systeme' I	Current Topics in 'Parallel Systems' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf483	Aktuelle Themen aus dem Gebiet 'Parallele Systeme' II	Current Topics in 'Parallel Systems' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf484	Spezielle Themen aus dem Gebiet 'Entwicklung korrekter Systeme' I	Special Topics in 'Correct Systems Design' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf485	Spezielle Themen aus dem Gebiet 'Entwicklung korrekter Systeme' II	Special Topics in 'Correct Systems Design' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf486	Aktuelle Themen aus dem Gebiet 'Entwicklung korrekter Systeme' I	Current Topics in 'Correct Systems Design' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf487	Aktuelle Themen aus dem Gebiet 'Entwicklung korrekter Systeme' II	Current Topics in 'Correct Systems Design' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf488	Spezielle Themen aus dem Gebiet 'Formale Sprachen" I	Special Topics in 'Formal Languages" I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf489	Spezielle Themen aus dem Gebiet 'Formale Sprachen' II	Special Topics in 'Formal Languages' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf490	Aktuelle Themen aus dem Gebiet 'Formale Sprachen' I	Current Topics in 'Formal Languages' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf491	Aktuelle Themen aus dem Gebiet 'Formale Sprachen' II	Current Topics in 'Formal Languages' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf494	Aktuelle Themen aus dem Gebiet 'Modellierung und Analyse komplexer Systeme' I	Current Topics in 'Modeling and Analysis of Complex Systems' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination

inf495	Aktuelle Themen aus dem Gebiet 'Modellierung und Analyse komplexer Systeme' II	Current Topics in 'Modeling and Analysis of Complex Systems' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf501	Umweltinformationssysteme	Environmental Information Systems	1 L 1 EC	6	Practical exercises and oral examination
inf502	Simulation	Simulation	1 L 1 S 1 P	6	Portfolio
inf510	Energieinformationssysteme	Energy Information Systems	1 L 1 S	6	Formal presentation and seminar paper
inf511	Smart Grid Management	Smart Grid Management	1 L 1 EC	6	Oral examination or written examination
inf513	Praktikum Energieinformatik	Energy Informatics Lab	1 P	6	Oral examination
inf520	Management von Informationssystemen im Gesundheitswesen	Management of Information Systems in Health Care	1 L 1 EC	6	Written examination or oral examination
inf522	Informationsverarbeitung in der biomedizinischen Forschung	Information Processing in Bio-Medical Research	1 L 1	6	Written examination
inf523	Medical Software Engineering	Medical Software Engineering	1 L 1 EC	6	Written examination or oral examination
inf524	Einführung in die Medizin für Informatiker	Introduction to Medicine for Computer Science Students	1 L 1 EC	6	Written examination or oral examination
inf532	Introduction to Cognitive Engineering	Introduction to Cognitive Engineering	1 L 1 EC	6	Oral examination
inf533	Probabilistische Modellierung I	Probabilistic Modelling I	1 S	3	Formal presentation
inf534	Probabilistische Modellierung II	Probabilistic Modelling II	1 S	3	Formal presentation
inf535	Computational Intelligence I	Computational Intelligence I	1 L 1 EC	6	Oral examination or written examination
inf536	Computational Intelligence II	Computational Intelligence II	1 L 1 EC	6	Oral examination or written examination
inf537	Intelligent Systems	Intelligent Systems	1 L 1 EC	6	Practical exercises and oral examination or practical exercises and written examination
inf538	Adaptive Computing	Adaptive Computing	1 L 1 EC 1 S	6	Portfolio
inf584	Spezielle Themen aus dem Gebiet 'Energieinformatik' I	Special Topics in 'Energy Informatics' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf585	Spezielle Themen aus dem Gebiet 'Energieinformatik' II	Special Topics in 'Energy Informatics' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf586	Aktuelle Themen aus dem Gebiet 'Energieinformatik' I	Current Topics in 'Energy Informatics' I	1 L or 1 S	3	Written examination or portfolio Formal presentation or oral examination

inf587	Aktuelle Themen aus dem Gebiet 'Energieinformatik' II	Current Topics in 'Energy Informatics' II	1 L or 1 S	3	Written examination or portfolio Formal presentation or oral examination
inf588	Spezielle Themen aus dem Gebiet 'IT im Gesundheitswesen'' I	Special Topics in 'Medical Informatics'' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf589	Spezielle Themen aus dem Gebiet 'IT im Gesundheitswesen' II	Special Topics in 'Medical Informatics' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf590	Aktuelle Themen aus dem Gebiet 'IT im Gesundheitswesen' I	Current Topics in 'Medical Informatics' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf591	Aktuelle Themen aus dem Gebiet 'IT im Gesundheitswesen' II	Current Topics in 'Medical Informatics' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf594	Aktuelle Themen aus dem Gebiet 'Lernende und Kognitive Systeme' I	Current Topics in 'Learning and Cognitive Systems' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf595	Aktuelle Themen aus dem Gebiet 'Lernende und Kognitive Systeme' II	Current Topics in 'Learning and Cognitive Systems' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf596	Spezielle Themen aus dem Gebiet 'Computational Intelligence' I	Special Topics in 'Computational Intelligence' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf597	Spezielle Themen aus dem Gebiet 'Computational Intelligence' II	Special Topics in 'Computational Intelligence' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf598	Aktuelle Themen aus dem Gebiet 'Computational Intelligence' I	Current Topics in 'Computational Intelligence' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf599	Aktuelle Themen aus dem Gebiet 'Computational Intelligence' II	Current Topics in 'Computational Intelligence' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf604	Business Intelligence I	Business Intelligence I	1 L 1 EC	6	Written examination or oral examination or seminar paper or formal presentation or practical exercises and written examination or practical exercises

					and oral examination
inf605	Customizing	Customizing	1 L 1 EC	6	Written examination or oral examination
inf607	Business Intelligence II	Business Intelligence II	1 L 1 EC	6	Written examination or oral examination or seminar paper or formal presentation or practical exercises and written examination or practical exercises and oral examination
inf650	Transportsysteme	Transport Systems	1 L 1 EC	6	Practical exercises and formal presentation
inf651	Betriebliche Umweltinformationssysteme I	Environmental Management Information Systems I	1 L 1 EC	6	Practical exercises and written examination
inf652	Produktionsorientierte Wirtschaftsinformatik	Production-oriented Business Informatics	1 L 1 EC	6	Practical exercises and formal presentation
inf653	ERP-Technologie	ERP Technologies	1 L 1 EC	6	Practical exercises and written examination
inf654	Mobile Commerce	Mobile Commerce	1 L 1 EC	6	Written examination
inf655	IT-Controlling	IT-Controlling	1 L 1 EC	6	Practical exercises and written examination
inf657	Product Engineering	Product Engineering	1 L 1 EC	6	Written examination or oral examination or seminar paper or formal presentation or portfolio
inf658	Praktikum Wirtschaftsinformatik	Practice Business Informatics	1 P	6	Portfolio or oral examination
inf659	Betriebliche Umweltinformationssysteme II	Environmental Management Information Systems II	1 L 1 EC	6	Written examination or oral examination or seminar paper or formal presentation or portfolio
inf660	IKT-gestützte Nachhaltigkeitsberichterstattung	ICT in Sustainability Reporting	1 L 1 EC or 1 L 1 P	6	Portfolio or project
inf661	Digitale Transformation	Digital Transformation	1 L 1 EC	6	Formal presentation, project or written examination
inf663	Application Area Maritime	Application Area Maritime	1 L 1 S	6	Oral examination and seminar paper

inf690	Spezielle Themen aus dem Gebiet 'Wirtschaftsinformatik' I	Special Topics in 'Business Informatics' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf691	Spezielle Themen aus dem Gebiet 'Wirtschaftsinformatik' II	Special Topics in 'Business Informatics' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf692	Spezielle Themen aus dem Gebiet 'Wirtschaftsinformatik' III	Special Topics in 'Business Informatics' III	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf693	Spezielle Themen aus dem Gebiet 'Wirtschaftsinformatik' IV	Special Topics in 'Business Informatics' IV	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf694	Aktuelle Themen aus dem Gebiet 'Wirtschaftsinformatik' I	Current Topics in 'Business Informatics' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf695	Aktuelle Themen aus dem Gebiet 'Wirtschaftsinformatik' II	Current Topics in 'Business Informatics' II	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf696	Aktuelle Themen aus dem Gebiet 'Wirtschaftsinformatik' III	Current Topics in 'Business Informatics' III	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf697	Aktuelle Themen aus dem Gebiet 'Wirtschaftsinformatik' IV	Current Topics in 'Business Informatics' IV	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf701	Didaktik der Informatik II (allgemeinbildendes Lehramt)	Computer Science Education II	2 S	6	Portfolio
inf703	Didaktik der Informatik III	Computer Science Education III	1 L 1 S	6	Portfolio
inf705	Praktikum Informatik in der Bildung	Computer Science in Education Lab	1 P	6	Portfolio
inf710	Spezielle Themen aus dem Gebiet 'Didaktik der Informatik ' I	Special Topics in 'Computer Science Education' I	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf711	Spezielle Themen aus dem Gebiet 'Didaktik der Informatik ' II	Special Topics in 'Computer Science Education' II	2 of L, S, EC, P	6	Written examination or portfolio or formal presentation or oral examination
inf712	Aktuelle Themen aus dem Gebiet 'Didaktik der Informatik ' I	Current Topics in 'Computer Science Education' I	1 L or 1 S	3	Written examination or portfolio or formal presentation or oral examination
inf713	Aktuelle Themen aus dem Gebiet 'Didaktik der Informatik ' II	Current Topics in 'Computer Science Education' II	1 L or 1 S	3	Written examination or portfolio or formal

					presentation or oral examination
inf903	Forschungsprojekt I	Research Project I	1 P	12	Project
inf904	Forschungsprojekt II	Research Project II	1 P	12	Project
inf950	Interdisziplinäres Modul I	Interdisciplinary Module I	2 of L, S, EC, P	6	Portfolio or formal presentation or oral examination and written examination
inf951	Interdisziplinäres Modul II	Interdisciplinary Module II	2 of L, S, EC, P	6	Portfolio or formal presentation or oral examination and written examination
inf960	Fundamental Competences in Computing Science I: Signals and Dynamical Systems	Fundamental Competences in Computing Science I: Signals and Dynamical Systems	1 L 1 EC	6	Practical exercises and oral examination or practical exercises and written examination
inf961	Fundamental Competences in Computing Science II: Mathematics	Fundamental Competences in Computing Science II: Mathematics	1 L 1 EC	6	Oral examination or written examination
inf962	Fundamental Competences in Computing Science III: Algorithms and computational Problem Solving	Fundamental Competences in Computing Science III: Algorithms and computational Problem Solving	1 L 1 EC	6	Practical exercises and oral examination or practical exercises and written examination
inf963	Foundations of Socio-Technical Systems Engineering: Cognitive Processes	Foundations of Socio-Technical Systems Engineering: Cognitive Processes	1 L 1 EC	6	Practical exercises and oral examination
inf964	Foundations of Socio-Technical Systems Engineering: Psychology and Philosophy of Technology	Foundations of Socio-Technical Systems Engineering: Psychology and Philosophy of Technology	1 L 1 S	6	Written examination
inf965	Foundations of Socio-Technical Systems Engineering: Systems Engineering	Foundations of Socio-Technical Systems Engineering: Systems Engineering	1 L 1 EC	6	Practical exercises and oral examination
inf966	Foundations of Socio-Technical Systems Engineering: Statistics and Programming	Foundations of Socio-Technical Systems Engineering: Statistics and Programming	1 L 1 EC	6	Written examination or oral examination
inf970	Fundamental Competences in Psychology I: Psychology	Fundamental Competences in Psychology I: Psychology	1 L 1 EC	6	Written examination
inf971	Fundamental Competences in Psychology II: Introduction to Cognitive Neuroscience	Fundamental Competences in Psychology II: Introduction to Cognitive Neuroscience	1 L 1 EC	6	Written examination
inf972	Fundamental Competences in Psychology III: Experiments and Studies	Fundamental Competences in Psychology III: Experiments and Studies	1 L 1 EC	6	Practical exercises and oral examination
inf973	Psychological practicum fNIRS, EEG	Psychological practicum fNIRS, EEG	1 P	6	Formal presentation

inf974	Human Computer Interaction and Brain Computer Interfacing	Human Computer Interaction and Brain Computer Interfacing	1 L 1 TPS	6	Portfolio
mat996	Einführung in die Numerik	Introduction to Numerics	1 L 1 EC	6	Practical exercises and written examination or practical exercises and oral examination
mat997	Einführung in die Stochastik	Introduction to Stochastics	1 L 1 EC	6	Practical exercises and written examination or practical exercises and oral examination