Hochschule Ostwestfalen-Lippe University of Applied Sciences

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Announcement of the Revised Version of the Master's Examination Regulations for the Degree Program Information Technology (full-time/part-time) at OWL University of Applied Sciences (MPO Information Technology)

of July 4, 2018

#### Announcement of the Revised Version of the Master's Examination Regulations for the Degree Program Information Technology (full-time/part-time) at OWL University of Applied Sciences (MPO Information Technology)

# of July 4, 2018

The wording of the Master's Examination Regulations for the degree program Information Technology as of September 1, 2017 is herewith announced including

- the version of the announcement for the program Information Technology (fulltime/part-time) as of March 6, 2018 (Official Journal of OWL University of Applied Sciences 2018/No. 5) and
- the statutes for amendment of the Master's Examination Regulations for the degree program Information Technology (full-time/part-time) as of July 2, 2018 (Official Journal of OWL University of Applied Sciences 2018/No. 27)

Lemgo, July 4, 2018

The President of OWL University of Applied Sciences

Prof. Dr. Jürgen Krahl

#### Announcement of the Revised Version of the Master's Examination Regulations for the Degree Program Information Technology (full-time/part-time) at OWL University of Applied Sciences (MPO Information Technology)

of July 4, 2018

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# I. General Information

#### § 1 Scope

These Master's Examination Regulations regulate the schedule of studies and the Master's examination in the degree program Information Technology at OWL University of Applied Sciences (OWL UAS). This degree program can be taken as a full-time program and part-time as an executive program.

#### § 2 Objective of the Course and Purpose of the Master's Examination

(1) The aim of the course is that, following an undergraduate degree, students will acquire an understanding of in-depth scientific knowledge and approaches of a technical, economic and methodological nature and will be qualified to continue to develop this knowledge themselves and, without assistance, produce responsible solutions to complex problems both in practice and in research and development in a scientific manner.

(2) The Master's examination is intended to establish whether the candidate has acquired in-depth specialized knowledge and is capable of producing independent solutions to complex problems using scientific knowledge and methods.

#### § 3 Master's Degree

On the basis of the Master's examination passed by the candidate, OWL University of Applied Sciences awards the academic degree

"Master of Science", "M.Sc." for short.

#### § 4 Study Requirements

- (1) The requirements for the commencement of studies are
  - 1. the *Fachhochschulreife* qualification (entrance qualification for studies at universities of applied sciences) or a qualification recognized as being equivalent to this,
  - 2 a) evidence of a Bachelor's or *Diplom* qualification in a degree program in Electrical Engineering, Information Technology, Computer Science or Mechatronics with a standard period of study of at least six semesters (180 ECTS points) and evidence of a final overall grade of 2.5 or higher in the degree program completed at a German higher education institution or at a higher education institution belonging to a Bologna signatory country. In exceptional cases, evidence may be accepted of a Bachelor's or *Diplom* examination in another degree program comprising to a substantial extent technical/qualitative subject matter from one of the above-mentioned degree programs (comparable degree program), with a standard period of study of at

least six semesters and a final overall grade of 2.5 or higher at a German higher education institution or at a higher education institution belonging to a Bologna signatory country.

- b) evidence of an equivalent Bachelor's degree in a technically/qualitatively closely related degree program (comparable degree program) at another foreign higher education institution, unless a major difference in quality to a higher education institution operating within the remit of the German Constitution can be proven, whereby at least 70 per cent of credits or a final overall grade of 2.5 must have been achieved.
- c) if the entry requirements of numbers 2.a) and 2.b) are not met at the time of application, OWL University of Applied Sciences may already give entrance permission to the Master's program if the aptitude is determined in particular on the basis of an average grade of 2.5 derived from the examinations which have been passed so far, and if the lack of entry requirements does not fall into the student's responsibility. Evidence of compliance with the entry requirements may not exceed six months from the date of enrollment.

If this overall grade is not achieved, the aptitude can be determined by the Admission Committee if the overall picture of the application meets the expectations of a technically successful study performance in this Master's program. For this purpose, a personal interview with the Admission Committee takes place. The Examination Board appoints the Admission Committee from among the professorial members of the Examination Board and the lecturers of the master's program.

(2) An Admission Committee shall decide whether the requirements pursuant to § 4 (1) No. 2 have been met.

(3) Evidence of a very good command of the English language, proven by

a) at least 7 years of language classes at an institution of general education. As a general rule, performances should at least have been assessed as 'befriedigend' (3.0) in the last four half-year periods of classes. This is only applicable to European candidates.

b) a Bachelor's degree completed in Australia, Great Britain, Ireland, Canada, New Zealand or the USA

c) a Bachelor's degree in an accredited degree program taught in English at a German institution of higher education,

d) a TOEFL test with a minimum score of 550 (paper-based) or 79 (internet-based, iBT),

e) a Cambridge ESOL Certificate (CPE, CAE with a minimum grade of B, FCE with a minimum grade of A),

f) IELTS with a minimum grade of 6.5,

g) a professional stay in an English-speaking country (Australia, Great Britain, Ireland, Canada, New Zealand, USA) of at least one year

Applicants who acquired their qualification for admission to higher education or their undergraduate degree in a country where English is the mother tongue are exempt from having to provide evidence of being able to master the English language.

#### § 5 Scholastic Aptitude Test

(1) International applicants who are not considered to be on a par with Germans due to or on the basis of human rights treaties and who do not belong to another Member State of the European Union and who did not acquire their qualification for admission to higher education at a German higher education institution or at a higher education institution belonging to a Bologna signatory country (§ 4 (1) No. 2 c), shall prove their ability to study by taking a special admission test.

(2) The test is taken in the form of an oral test given in English, lasting around 20 minutes. The aim of the test is to determine whether the applicant is expected to be able to think in a structured, analytical manner in contexts within the subject areas of Electrical Engineering, Information Technology, Computer Science or Mechatronics and to independently complete subject-oriented, interdisciplinary assignments on the basis of the knowledge and skills he or her possesses. The applicants' responses shall be assessed against this background.

(3) The Scholastic Aptitude Test shall be held by two professorial members of the Admission Committee. The test shall be assessed jointly. Individual assessments shall be recorded in the event of divergent assessments.

(4) The main subject matters and results of the test, in particular the facts forming the relevant criteria for the grading, shall be recorded in a report.

(5) The test shall be held each year in June either locally in person or, in the applicant's absence, by video conference.

(6) The result of the Scholastic Aptitude Test shall be announced to the applicant in writing by the Dean at the beginning of July, and accompanied by information on rights of appeal.

#### § 6 Closing Date for Applications and Application Documents

(1) Enrolment takes place each winter semester. Written applications by applicants from the EU must have been received by OWL University of Applied Sciences by 15 July; those from non-EU applicants must have been received by June 1.

- (2) The following documents shall be enclosed with the application:
  - 1. the Bachelor's degree certificate or if this has not yet been issued a certificate listing the credits awarded and the average grade achieved,
  - 2. proof of English language skills in accordance with § 4 (3),
  - 3. a letter of motivation, written in English, containing the specific talents and interests based on which the applicant considers himself or herself to be particularly suited to this degree program at OWL University of Applied Sciences and in which way the applicant can identify with the desired profession.

#### § 7 Admission Committee

(1) An Admission Committee shall decide upon admission requirements, particularly those con- cerning the existence of the necessary aptitude within the meaning of § 5 and the recognition of study achievements in a degree program whose subjects are closely related to those of this Mas- ter's program.

(2) The Admission Committee shall consist of a total of seven members. Four professorial members with voting power who teach on the degree program pertaining to these Examination Regulations, two members with voting power from the group of academic staff who have successfully completed the "Information Technology" degree program and one advisory student member of the Faculty Council shall be elected. A deputy shall be elected for each member with voting power.

(3) The Admission Committee shall have a quorum if at least three members with voting power, including two professors and one academic staff member, are present. The period of office shall be two years, or one year in the case of the student member. Members may be re-elected.

#### § 8 Standard Period of Study, Total Credit Hours, Language of Instruction and Examination

(1) The standard period of study for the full-time program, including the Master's examination, is four semesters. The standard period of study for the part-time program is up to eight semesters. Admission to this study program is generally scheduled for the winter semester. Admission to the summer semester is possible. In this case, the courses of the second semester are offered in accordance with Appendix 1.

(2) A total of 120 credit points must be obtained.

(3) Courses and examinations in the Master's program in Information Technology are held in English.

(4) The provisions laid down by the partner universities apply to the examinations to be sat at the partner universities. The partner universities' regulations governing examinations apply to the examination bodies.

#### § 9 Structure of Examinations and Examination Dates

(1) The course concludes with the Master's examination. The Master's examination consists of module examinations and a Master's thesis as the concluding examination, which comprises a written part and an oral part (colloquium).

(2) The course and the examinations should be designed so that the course and the Master's examination can be concluded by the end of the fourth semester for the full-time program and by the end of the eighth semester for the part-time program. To this end, the candidate must receive notification in good time concerning both the type and number of examinations and the dates on which these are to be taken and also concerning the date on which the topic of the written part of the Master's thesis is to be issued and the date on which the written part of the Master's thesis shall be submitted. (3) Registration for the concluding part of the Master's examination (application for admission to the written part of the Master's thesis) will generally be prior to the beginning of the fourth semester for the full-time program and prior to the beginning of the seventh semester for the part-time program.

# § 10 Examination Board

(1) The competent department shall form an Examination Board to organize the examinations and carry out the tasks assigned by these Examination Regulations. The Examination Board shall consist of five persons: the Chair, the deputy and three further members. The Chair, the deputy and one further member shall be selected from the group of professors, one member shall be selected from the group of academic staff and one member from the group of students. Personal deputies are selected accordingly for the members of the Examination Board, with the exception of the Chair and the deputy. The period of office for the student member and his or her deputy shall be one year, and four years for the other members. Members may be re-elected.

(2) The Examination Board is an authority within the meaning of the law on administrative procedures.

(3) The Examination Board shall ensure that the provisions of the Examination Regulations are complied with and that the examinations are held in accordance with the Examination Regulations. It shall be responsible in particular for ruling on appeals made against decisions taken in examination procedures. The Examination Board shall report to the department on the development of the examinations and periods of study. The report shall be published in an appropriate manner by the university. The Examination Board shall submit proposals for the reform of the Examination Regulations, the Study Regulations and the Curriculum. The Examination Board may delegate routine tasks to the Chair; this shall not apply to decisions on appeals.

(4) The Examination Board shall have a quorum if, in addition to the Chair or his or her deputy and one further professor, at least one further member with voting power is present. The Examination Board shall adopt decisions by a simple majority. The Chair's vote shall be the deciding vote in the event of a tie. The student member of the Examination Board shall not be involved in pedagogical/scientific decisions, in particular in the recognition or other assessment of credits and examinations or in appointing examiners and assessors. The student member of the Examination Board shall not participate in consultation and adoptions of resolutions on matters concerning the setting of examination assignments or his or her own examination.

(5) Members of the Examination Board shall have the right to be present during examinations, with the exception of a student member who wishes to take the same examination on the same day.

(6) Examination Board meetings shall be closed to the public. The members of the Examination Board and their deputies shall observe official secrecy. Those members who are not public servants shall be bound to confidentiality by the Chair of the Examination Board.

(7) The candidate shall be immediately notified in writing of any incriminatory decisions taken by the Examination Board or its Chair; an English translation shall be attached. The candidate should be given prior opportunity for a legal hearing. § 2 (3) No. 3 of the Administrative Procedures Act for the Federal State of North Rhine-Westphalia, in particular con-

cerning exceptions in respect of the obligation to allow legal hearings and to state reasons in assessments of a scientific or artistic nature, shall remain unaffected.

#### § 11 Examiners and Assessors

(1) The Examination Board shall appoint the examiners and assessors. It may delegate the appointment to the Chair. Professors and members of the teaching staff on the degree program are authorized examiners. Only those who have at least taken the corresponding Master's examination or have a comparable qualification and, providing there are no compelling reasons for a departure from this requirement, have carried out independent teaching work in the subject area to which the examination relates may be appointed as examiners; if several examiners are to be appointed, at least one must have taught the examination subject in question. In the case of the Master's thesis, both examiners must have at least the qualification of a doctorate or be a professor. Only those who have passed the corresponding Master's examination or a comparable examination or who have a comparable qualification may be appointed as assessors.

(2) Examiners shall be independent in their conduct of examinations.

(3) The Examination Board shall ensure that the examination obligations are distributed as equally as possible amongst the examiners.

(4) The Chair of the Examination Board shall ensure that the names of the examiners are made known to the candidate at least two weeks before the date of the respective examination.

(5) § 10 (6) Sentences 2 and 3 shall apply accordingly to examiners and assessors.

# § 12 Recognition of Examinations and Assignment to a Higher Semester

(1) Examination credits obtained in degree programs at other state or state-recognized higher education institutions, at state or state-recognized academies of vocational training or in degree programs at foreign state or state-recognized higher education institutions are recognized, if the acquired competences do not differ significantly from the performances that are replaced. The same applies to degrees with which courses of study within the meaning of Sentence 1 have been completed.

(2) It is the responsibility of the applicant to provide necessary information about the credits that are to be recognized. The documents must contain information about the credits obtained and examinations passed and about the other knowledge and skills gained that are to be recognized. In the event of the recognition of credits from degree programs, as a rule the Examination Regulations of the degree program together with a description of the module and the individual Transcript of Records or a comparable document shall be presented. The Examination Board is responsible for proving that an application referred to in Paragraph 1 does not meet the conditions for recognition.

(3) On application, other knowledge and qualifications may be recognized on the basis of documents presented, provided that such knowledge and qualifications are equivalent in content and quality to the examinations they are intended to replace.

(4) Decisions in accordance with Paragraphs 1 and 3 shall be taken by the Examination Board no later than 8 weeks after submission of the complete application documents.

(5) On the basis of a recognition in accordance with Paragraph 1 the University can and upon application the University must classify the applicant in a semester whose number depends on the extent of ECTS credits gained through recognition in relation to the total number of ECTS credits achievable in the respective study program. If the decimal place is less than five, it is rounded off to whole semesters; otherwise it is rounded up. The Examination Board is responsible for the classification in a higher semester. In case of doubt, the Examination Board decides after consultation of the examiner who is responsible for the subjects.

(6) If credits and examinations are recognized, the grades – where the grade systems are comparable – should be adopted and included in the calculation of the final grade. Where grade systems are not comparable, the grade "pass" shall be recorded.

(7) If the recognition of credits is rejected in accordance with Paragraph 1, a substantiated reply must be given.

(8) Credits can only be recognized once within a degree program.

(9) If students who are enrolled on another degree program at OWL University of Applied Sciences and on the degree program pertaining to these Examination Regulations attempt to sit an examination in a subject that has the same number in these Examination Regulations and in the Examination Regulations pertaining to the other degree program at OWL University of Applied Sciences, the examination in such a subject will be officially recognized in both degree programs. Examination attempts, including failed attempts, in such subjects count towards the remaining number of resits within both degree programs; this also applies to examinations in additional subjects. Sentences 1 and 2 apply accordingly if a student is enrolled on several other degree programs at OWL University of Applied Sciences and on the degree program pertaining to these Examination Regulations.

(10) If a student changes to the degree program pertaining to these Examination Regulations from another degree program at OWL University of Applied Sciences, examinations in subjects of the previous degree program shall officially be recognized as examinations in the new degree program, provided that the subjects in the Examination Regulations pertaining to the previous degree program and in the new degree program have the same subject number; this also applies to examinations in additional subjects. The attempts to pass this examination shall be deducted from the number of resits permitted. Sentences 1 and 2 apply accordingly if a student additionally embarks on studies according to these Examination Regulations, provided that the subject number in the Examination Regulations of the other degree program and that of the new or additional degree program is identical.

(11) Clause 10 applies accordingly for failed examinations. In the event of failed attempts, the maximum number of resits permitted per subject is reduced by the number of failed attempts.

#### § 13 Assessment of Examinations, Credits and ECTS Credits

(1) The grades for individual examinations shall be set by the respective examiners. The following grades should be used for grading:

| 1.0 | = | very good    | = | an outstanding performance;  |
|-----|---|--------------|---|--|
| 2.0 | = | good         | = | a performance considerably higher than<br>average requirements;                  |
| 3.0 | = | satisfactory | = | a performance corresponding to average<br>requirements;                          |
| 4.0 | = | sufficient   | = | a performance which still satisfies the requirements despite deficiencies;       |
| 5.0 | = | fail         | = | a performance which falls short of the requirements due to serious deficiencies. |

The intermediate values 1.3, 1.7, 2.3, 2.7, 3.3 and 3.7 may be used to differentiate between examination performances.

(2) An examination has been passed if the subject grade is at least "sufficient" (4.0).

(3) If several examiners are involved in an examination, they shall jointly assess the overall examination performance, unless otherwise determined in these Examination Regulations. If the assessment cannot be agreed upon, the grade shall be derived from the arithmetic mean of the individual assessments.

(4) Where grades are derived from intermediate values, the following arithmetical values shall result in the following grades

| up to 1.5          | the grade | "very good"    |
|--------------------|-----------|----------------|
| over 1.5 up to 2.5 | the grade | "good"         |
| over 2.5 up to 3.5 | the grade | "satisfactory" |
| over 3.5 up to 4.0 | the grade | "sufficient"   |
| over 4.0           | the grade | "fail".        |

(5) When the subject grades and the final grade are derived, only one decimal place shall be taken into consideration; all other decimal places shall be dropped without rounding.

(6) The assessment of module examinations should be notified to students within six weeks at the latest. The assessment of the written part of the Master's thesis should be notified to students within four weeks at the latest.

(7) Credits (CR) in accordance with Appendix 1 shall be awarded for each module examination assessed as being at least "sufficient". The credits awarded under these Examination Regulations correspond to ECTS credits. (1) Parts of the Master's examination which have been assessed as at least "sufficient" cannot be retaken.

(2) Module examinations which have not been passed or are deemed to have not been passed may be retaken not more than two times. (Repeat) examinations can also be taken at a partner university. In this case, the examination conditions and the procedural regulations of the partner university offering the module/subject apply.

(3) A written part of the Master's thesis or a corresponding colloquium which has not been passed or which is deemed to have not been passed may be repeated once. A failed attempt in the written part of a Master's thesis in the same degree program at the partner universities counts when calculating the number of attempts to take the written part of the Master's thesis.

# § 15 Absence, Withdrawal, Cheating, Breach of Regulations

(1) An examination shall be deemed to have been assessed as "not sufficient" (5.0) if the candidate misses an examination without good reason or if he withdraws from an examination without good reason after the examination has begun. The same applies if a written examination assignment is not finished within the allotted time.

(2) An important reason is in particular an illness-related inability to take part in an examination, the use of protection periods according to the regulations of the Maternity Protection Act (*Mutterschutzgesetz*) or according to the Parental Allowance and Parental Leave Act (*Bundeselterngeld- und Elternzeitgesetz* – BEEG) or in urgent cases the care of the spouse, the registered partner, a relative in straight line or a first-degree relative-in-law, if he or she is in need of care or assistance.

(3) Candidates shall immediately notify the Examination Board in writing of the reasons for their withdrawal or failure to appear and credibly substantiate these. As proof of the illness-related inability to take part in an exam a medical certificate of the existence of the inability to take part in an exam shall suffice, unless there are sufficient factual indications which suggest that the ability to take part in an exam is likely to exist or if any other evidence is considered appropriate. If such indications exist, the Examination Board is entitled to demand, at its own expense, a medical certificate from an independent examining doctor (Vertrauensärztin or Vertrauensarzt) of the University; the student must be able to choose between several independent examining doctors.

If the deadline for submission of an examination performance is not met for an important reason, the relevant Examination Board may upon application extend the total deadline for submission to a maximum of twice the processing time originally laid down; the possibility of withdrawal remains unaffected from this.

(4) If a candidate tries to influence an examination through deception, i.e. using inadmissible aids, the examination in question shall be deemed to have been assessed as "not sufficient" (5.0); this determination shall be made by the respective examiner or invigilator and recorded. A candidate who disrupts the orderly course of the examination may be excluded from further participation in the examination by the respective examiner or invigilator, generally after prior warning; in this case the examination in question shall be deemed to have been assessed as "not sufficient" (5.0), and the reasons for the exclusion shall be recorded. In serious cases, the Examination Board may exclude the candidate from taking

further examinations. The candidate may request within 14 days of their announcement that decisions made under Sentences 1 and 2 be reviewed by the Examination Board.

(5) Anyone intentionally attempting to influence an examination by deception acts contrary to the rules. The offense can be punished with a fine of up to 50,000 euros. The administrative authority that is in charge of the prosecution and sanctioning of administrative offenses is the Vice President for Economic and Personnel Administration (Chancellor). In the case of a multiple or other serious attempt to deceive, the candidate can also be taken off the university register (exmatriculated) at the request of the Examination Board.

(6) Incriminating decisions made by the Examination Board shall be immediately notified to the candidate in writing, with reasons, and accompanied by information on rights of appeal. An English translation shall be attached.

# II. Module Examinations

# § 16 Objective, Scope and Type of Module Examinations

(1) The aim of module examinations is to establish whether the candidate has mastered the essential aspects of the content and methods of the examination subjects and can independently apply the acquired knowledge and skills.

(2) The examination requirements shall be geared towards the contents of the courses intended for the subject in question.

(3) The type and scope of module examinations are set out in §§ 19 to 23 a. The Examination Board will normally establish the type of examination and, in the event of a written examination, the processing time, in consultation with the examiners for all candidates of the respective examination at the beginning of the course.

(4) A module examination has been passed if the examination performance is assessed as at least "sufficient".

#### § 17 Admission to Module Examinations

(1) Candidates may only be admitted to a module examination if they

1. fulfill the course requirements (§ 4),

in the case of § 4 (1) No. 2 c), a Bachelor's degree must have been presented.

2. have enrolled on the Information Technology Master's program at Hochschule Ostwestfalen-Lippe

a) in accordance with § 48 (1) of the Higher Education Act (*Hochschulgesetz* - HG) or

b) have enrolled as cross-registered students in accordance with § 52 (1) HG or

c) have enrolled as cross-registered students in accordance with § 52 (2) HG,

3. have fulfilled the admission requirements referred to in these Examination Regulations for the respective module examination or will fulfill them by a date set by the Examination Board.

(2) Optional compulsory subjects are laid down, in binding form, together with the application.

(3) Applications for admission shall be sent in writing to the Chair of the Examination Board by the deadline set by the Examination Board. The application should be made at the same time for all module examinations which the candidate aspires to take within the same examination period.

(4) Unless previously submitted, the following documents shall be appended to the application or shall be handed in at a later date decided upon by the Examination Board:

- 1. evidence concerning the admission requirements referred to in Clause 1,
- 2. a statement concerning previous attempts to take corresponding examinations and previous attempts to take a Master's examination and a preliminary or intermediate examination in the same degree program,
- 3. a statement concerning whether, in the case of oral examinations, the admission of listeners is opposed.

If it is not possible for the candidate to append a document required under the first sentence of this clause in the manner envisaged, the Examination Board may allow the evidence to be presented in some other way.

(5) An application for admission to a module examination may be withdrawn without counting towards the number of possible examination attempts

- in accordance with §§ 19 and 20 in writing to the Chair of the Examination Board up to a week before the set examination date,
- in accordance with §§ 21, 22 and 23 a in writing to the Chair of the Examination Board at the latest up to a week following the notification of the assignment.

(6) The Chair of the Examination Board and, in cases of doubt, the Examination Board shall decide on admission.

(7) Admission shall be refused if

- a) the requirements referred to in Clause 1 are not fulfilled or
- b) the documents are incomplete and have not been supplemented by the date set by the Examination Board or
- c) the candidate has definitively failed a corresponding examination or has definitively failed the Master's examination or a corresponding preliminary or intermediate examination on the same degree program held at a location within the remit of the German Constitution or at one of the partner universities.

Otherwise admission may only be refused if, within the remit of the German Constitution, the candidate has lost his entitlement to an examination in the same degree program through missing a deadline for retaking it.

#### § 18 Conducting Module Examinations

(1) Module examinations are held out of class, unless specific provision is made for this in the types of examination laid down in these Examination Regulations. The Examination Board shall set the examination periods and announce them in good time.

(2) The Examination Board shall set the dates of the examinations and announce them beforehand in good time – generally at least seven weeks before the first day of the respective examination period.

(3) Candidates must produce an official identity document at the request of the examiner or invigilator.

#### § 18 a Students in Special Situations

(1) If a candidate demonstrates by means of a medical certificate or in some other way that he is not capable of taking an examination wholly or partially in the envisaged form due to a permanent handicap or chronic disease, the Chair of the Examination Board may allow to provide aids, to extend the processing time or to provide an equivalent examination to be taken in some other form. He or she must ensure that any disadvantage for severly disabled persons and equals (§ 2 Clause 2 and 3 SGB IX, as amended) is compensated for as much as possible by the arrangements for the examination conditions. In the event of any doubt, the Chair of the Examination Board may request further evidence.

(2) With regard to students affected by the protection provisions referred to in §§ 3, 4, 6 and 8 of the Maternity Protection Act (*Mutterschutzgesetz*) or by time limits laid down in legislation on parental allowance and parental leave (*Bundeselterngeld- und Elternzeitgesetz* – BEEG), the Examination Board may, on application by the student, take account of the individual's situation when determining the examination conditions governed by these Examination Regulations.

(3) With regard to students who care for their spouse, registered partner, relative in the direct line or a person related by marriage in the first degree, if the latter is in need of care, the Examination Board shall, on application by the student, take account of the periods of absence caused by this care and the individual's situation when setting deadlines and dates governed by these Examination Regulations.

(1) The examination shall consist of a written examination lasting two to three hours. The written examination shall take place under supervision. The examiner shall decide on the allowance of aids.

(2) The written examination assignment is generally set by just one examiner.

(3) Written examinations should be assessed by two authorized examiners. The Examination Board may deviate from this in justified cases; the reasons shall be recorded.

(4) If the determination of the grade "fail" (5.0) for a written examination would lead to the failure of the Master's examination in accordance with § 31 (2), the candidate may apply to take a supplementary oral examination in the examination subject concerned. The application shall be submitted in writing to the Examination Board one week after the announcement of the examination result at the latest. The supplementary oral examination shall be carried out promptly after submission of the application. The Examination Board shall decide upon the place and date of the examination. The supplementary oral examination shall be held jointly by the examiners of the written examination. Incidentally, the valid provisions pertaining to the oral examination (§ 20) apply accordingly to the supplementary oral examination. Only the grades "sufficient" (4.0) or "fail" (5.0) can be determined for the examination subject.

(5) Clause 4 shall not apply in the cases laid down in § 15 (1) and (3).

(6) Only one supplementary oral examination according to Clause 4 may be taken within the framework of a Master's examination. The supplementary oral examination shall not count as a separate examination attempt.

# § 20 Oral Examination

(1) Oral examinations are generally held before an examiner in the presence of an expert assessor or before several examiners (examination before a panel of examiners) in the form of group or individual examinations. As a matter of principle, each candidate will be tested in each area by only one examiner. Oral examinations shall last 30 to 35 minutes per candidate. The examiner shall consult the assessor before determining the grade and, where there are several examiners, they must consult each other.

(2) The main subject matters and results of the examination, in particular the facts forming the relevant criteria for the grading, shall be recorded in a report. The result of the examination shall be made known to the candidate following the oral examination.

(3) Students intending to take the same examination during a later examination period shall be allowed to attend as listeners if space permits, unless a candidate has opposed this when registering for the examination. Permission to attend does not extend to the discussions and announcement of the examination result.

(1) In the "Presentation" type of examination, an assignment from the area of the subject in question shall be tackled without assistance. The solution and the results are to be presented orally. As a guide, the presentation should take 30 minutes. The level of difficulty of the assignment shall be geared towards this guideline. The preparation time shall be at least six weeks; § 28 (2) Sentences 3 and 4 apply accordingly.

(2) Presentation types of examination can also take place in class. The Examination Board shall lay down further details, in particular application deadlines. The Examination Board shall determine the issue date of the assignment in consultation with the examiners and shall announce it beforehand in good time. The assignment shall be handed out to the candidates in written form.

(3) Presentations are generally held before an audience and an examiner in the presence of an expert assessor or before several examiners (examination before a panel of examiners) in the form of individual examinations. Questions regarding clarifications concerning the solution and results may only be asked by the examiner(s). Those candidates who are admitted for the same examination subject in the same examination period are permitted to attend as listeners and may not be excluded by the candidate.

(4) Otherwise § 20 shall apply accordingly.

#### § 22 Presentation with written summary

(1) In the "Presentation with written summary" type of examination, an engineering assignment from the area of the subject in question shall be tackled without assistance. The solution and the results shall be summarized in writing and presented orally. The processing time is at least six weeks. § 27 (2) Sentences 3 and 4 apply accordingly, with the proviso that the processing time can be extended by up to three weeks. As a guide, the presentation should take 20 minutes. The written summary should be around five to ten pages long, including illustrations; if the threshold of ten pages is exceeded, this shall be assessed negatively. The level of difficulty of the assignment shall be geared towards this guideline.

(2) The application for admission to module examinations of the type "Presentation with written summary" may be submitted before the application for admission to module examinations of other types. The Examination Board shall specify the details.

(3) The Examination Board shall set the issue date of the assignment in consultation with the examiners and shall announce it beforehand in good time. The assignment shall be handed out to the candidates in written form. Module examinations of the type "Presentation with written summary" may be held in class. The day on which the assignment is issued shall be considered as the examination date within the meaning of § 17 (5) Sentence 1.

(4) The Examination Board shall set the presentation dates in consultation with the examiners and shall announce them beforehand in good time, generally at least two weeks in advance. The written summary shall be submitted in person to the examiner responsible for the written assignment. The date of submission shall be recorded by the respective examiner. Upon submission of the written summary, the candidate shall provide a written assurance that he has prepared his work without assistance and that he has not used any sources and aids other than those stated and identified in citations. If the written summary is not submitted in time, the examination shall be deemed to have been assessed as "fail" (5.0) pursuant to § 15 (1) Sentence 2.

(5) § 21 (3) applies accordingly, with the proviso that the presentation is generally held before an audience and two examiners. If the Examination Board specifies a different number of examiners, the reasons for this decision shall be recorded. The examiners of the presentation shall also assess the written summary; the Examination Board may deviate from this in justified cases; the reasons shall be recorded.

(6) § 21 (4) in conjunction with § 20 (2) apply accordingly, with the proviso that the result of the presentation is announced to the candidate subsequent to the presentation.

(7) § 21 (4) in conjunction with § 20 (3) apply accordingly.

(8) The presentation and the written summary are assessed separately. Here § 13 (1), (3), (4) and (5) apply accordingly. The grade of module examinations taken in the "Presentation with written summary" type of examination shall be derived from the weighted average of the individual grades for the presentation and the written summary in accordance with § 13 (4) and (5). The following weighting of grades is applied:

Presentation double Written summary single

An examination has been passed if the weighted average of the individual assessments is a minimum of "sufficient" (4.0). § 15 applies accordingly to the presentation and the written summary. Students shall be informed of the assessment of the written summary and the subject grade within four weeks of the presentation date at the latest.

# § 23 Composition

(1) In the "Composition" type of examination, an assignment shall be tackled without assistance. A written composition shall be prepared about the solution and the results. As a guide, the written composition should be around 20 pages long. The level of difficulty of the assignment shall be geared towards this guideline. The processing time is eight weeks; § 28 (2) Sentences 3 and 4 apply accordingly.

(2) § 21 (2) applies accordingly.

(3) The written composition shall be submitted to the examiner shown in the written notification of the assignment within the specified hand-in date. The date of submission shall be recorded by the respective examiner; if the work is delivered by post or by a comparable commercial delivery service, the relevant criterion for determining the date is the date it was received by the post office or delivery service. Upon submission of the written composition, the candidate shall provide a written assurance that he has prepared his work without assistance and that he has not used any sources and aids other than those stated and identified in citations. If the written composition is not submitted within the specified time, it shall be deemed to have been assessed as "fail" pursuant to § 15 (1) Sentence 2.

(4) § 19 (3) applies accordingly.

#### § 23 a Composition with Colloquium

(1) In the "Composition with Colloquium" type of examination, an engineering assignment from the area of the subject in question shall be tackled without assistance. A written composition shall be prepared about the solution and the results. As a guide, the written composition should be 15 pages long. The level of difficulty of the assignment shall be geared towards this guideline. The processing time is eight weeks. § 28 (2) Sentences 3 and 4 apply accordingly. The written composition shall be dealt with in a colloquium lasting 20 minutes per candidate.

(2) The application for admission to module examinations of the type "Composition with Colloquium" may be submitted before the application for admission to module examinations of other types. The Examination Board shall specify the details.

(3) The Examination Board shall set the issue date of the assignment in consultation with the examiners and shall announce it beforehand in good time. The assignment shall be handed out to the candidates in written form. Module examinations of the type "Composition with Colloquium" may be held in class. The day on which the assignment is issued shall be considered as the examination date within the meaning of § 17 (5).

(4) The Examination Board shall set the dates of the colloquia in consultation with the examiners and shall announce them beforehand in good time, generally at least two weeks in advance. The composition should be submitted in person to the examiner shown on the written notification of the assignment within the specified hand-in date. The date of submission shall be recorded by the respective examiner. Upon submission of the composition, the candidate shall provide a written assurance that he has prepared his work without assistance and that he has not used any sources and aids other than those stated and identified in citations. If the composition is not submitted in time, the examination shall be deemed to have been assessed as "fail" (5.0) pursuant to § 15 (1) Sentence 2.

(5) Clause 1 Sentence 7 applies to the duration of the colloquium; for the rest, § 20 applies accordingly to the colloquium, with the proviso that the colloquium is generally held before two examiners. If the Examination Board specifies a different number of examiners, the reasons for this decision shall be recorded. The examiners of the composition shall also assess the colloquium; the Examination Board may deviate from this in justified cases; the reasons shall be recorded.

(6) The composition and the colloquium are assessed separately. Here § 17 (1), (3), (4) and (5) apply accordingly. The grade of module examinations taken in the "Composition with Colloquium" type of examination shall be derived from the weighted average of the individual grades for the composition and the colloquium in accordance with § 17 (4) and (5). The following weighting of grades is applied:

| Composition | double  |
|-------------|---------|
| Colloquium  | single. |

An examination has been passed if the weighted average of the individual assessments is a minimum of "sufficient" (4.0). § 19 applies accordingly to the composition and the colloquium. Students shall be informed of the assessment of the composition and colloquium, as well as the subject grade, subsequent to the colloquium.

#### § 23 b Composition with Colloquium in the Subject Project Work

(1) In the subject "Project Work", the examination can also be held as a "Composition with Colloquium". In the "Composition with Colloquium" type of examination, an assignment shall be tackled without assistance. A written composition shall be prepared about the solution and the results. As a guide, the written composition should be 25 pages long. The level of difficulty of the assignment shall be geared towards this guideline. The processing time is eight weeks. § 28 (2) Sentences 3 and 4 apply accordingly. The written composition shall be dealt with in a colloquium.

(2) § 21 (2) applies accordingly.

(3) The composition shall be submitted to the examiner shown on the written notification of the assignment within the specified hand-in date. The date of submission shall be recorded by the respective examiner. Upon submission of the composition, the candidate shall provide a written assurance that he has prepared his work without assistance and that he has not used any sources and aids other than those stated and identified in citations. If the composition is not submitted in time, the examination shall be deemed to have been assessed as "fail" (5.0) pursuant to § 15 (1) Sentence 2.

(4) § 19 (3) applies accordingly to the composition.

(5) The Examination Board shall set the dates of the colloquia in consultation with the examiners and shall announce them in good time, generally at least two weeks in advance. The colloquium shall last 20 minutes per candidate, otherwise § 20 applies accordingly to the colloquium, with the proviso that the colloquium is generally held before two examiners. If the Examination Board specifies a different number of examiners, the reasons for this decision shall be recorded. The examiners of the composition shall also assess the colloquium; the Examination Board may deviate from this in justified cases; the reasons shall be recorded.

(6) The composition and the colloquium are assessed separately. Here § 13 (1), (3), (4) and (5) apply accordingly. The grade of module examinations taken in the "Composition with Colloquium" type of examination shall be derived from the weighted average of the individual grades for the composition and the colloquium in accordance with § 10 (4) and (5). The following weighting of grades is applied:

| Composition | triple  |
|-------------|---------|
| Colloquium  | single. |

An examination has been passed if the weighted average of the individual assessments is a minimum of "sufficient" (4.0). § 15 applies accordingly to the composition and the colloquium. Students shall be informed of the assessment of the composition and colloquium, as well as the subject grade, subsequent to the colloquium.

# § 24 Optional Study Semester Abroad

(1) Students can spend an optional study semester abroad at a suitable foreign university of their choice. In the full-time program, the study semester abroad can be taken in either the second or third semester. In the part-time program, the study semester abroad can be

taken between the second and the sixth semesters. The period abroad shall be for a minimum of four months.

(2) The aim of the study semester abroad is for students to gain foreign language skills and, in particular, cross-cultural skills, in addition to acquiring scientific/technical knowledge.

(3) The Examination Board shall decide on admission to the study semester abroad and whether the respective place for study abroad is approved. Students shall obtain credits and take examinations at the foreign higher education institution in order for the study semester abroad to have been successful. The Examination Board shall decide which credits and examination must be obtained and taken for the stay to be deemed successful. The provisions governing the foreign higher education institution apply to the credits to be obtained and examinations to be passed at the foreign higher education institution. For the examination bodies of the foreign higher education institution, the regulations governing examinations there apply.

(4) During the study semester abroad, the student's activities shall be accompanied by a responsible member of the faculty of the Department of Electrical Engineering and Computer Engineering.

(5) The successful completion of the study semester abroad shall be confirmed by the supervising professor once evidence has been provided from the foreign higher education institution that the credits and examinations as specified by the Examination Board of OWL University of Applied Sciences have been obtained and passed.

(6) Students who fail to receive confirmation of the successful completion of the study semester abroad shall continue their studies without a study semester abroad. If the study semester abroad is not completed successfully, it cannot be repeated.

(7) 30 credits are awarded for successfully completing the study semester abroad.

# III. Master's Examination

# § 25

# Module Examinations for the Master's Examination

In the Master's program Information Technology, credits shall be obtained by taking examinations – in accordance with Appendix 1 – on the full-time program and in accordance with Appendix 2 on the part-time program.

#### § 26 Written Part of the Master's Thesis

(1) The aim of the written part of the Master's thesis is to demonstrate that the candidate is capable within a prescribed deadline of independently working on a practice-oriented complex task in his subject area both as regards details of the subject and the interdisciplinary contexts using scientific methods. The written part of the Master's thesis normally consists of the independent processing of a complex assignment, using scientific methods,

and a detailed description and explanation of the solution. The Master's thesis shall be written in English.

(2) The written part of the Master's thesis shall be at least 50 pages and also should not exceed 100 pages.

(3) The written part of the Master's thesis shall be issued and supervised by an authorized examiner from the circle of full-time professors who teach on the Information Technology degree program, appointed by the Examination Board in accordance with § 11 (1). The candidate should be given an opportunity to put forward proposals for the topic of the written part of the Master's thesis.

(4) On application, the Chair of the Examination Board shall ensure that a candidate receives a topic for the written part of the Master's thesis in good time.

(5) The written part of the Master's thesis may also be prepared in the form of group work (two persons).

#### § 27 Admission to the Written Part of the Master's thesis

(1) Students may only be admitted to the written part of the Master's thesis if they

- 1. fulfill the admission requirements for examinations in accordance with § 17 (1) Nos. 1 and 2 a) or b),
- 2. in the case of § 4 (1) No. 2 c) has been awarded a Bachelor's degree and

has gained a minimum of 84 credits in examinations.

(2) The application for admission shall be sent in writing to the Chair of the Examination Board. The following documents shall be appended to the application, unless they are already available:

- 1. evidence concerning the admission requirements referred to in Clause 1,
- 2. a statement concerning previous attempts to work on a Master's thesis and to take the Master's examination and, where appropriate, a preliminary or intermediate examination in the same degree program.

A statement should be appended to the application concerning the examiner who is prepared to issue and supervise the written part of the Master's thesis.

(3) The application for admission may be withdrawn in writing without adding to the number of possible examination attempts until such time as the decision on the application is announced.

(4) The Chair of the Examination Board and, in cases of doubt, the Examination Board shall decide on admission. Admission should be refused if

- a) the requirements referred to in Clause 1 have not been fulfilled or
- b) the documents are incomplete or

c) in the area within the remit of the German Constitution or at one of the partner universities a corresponding Master's thesis by the candidate has been assessed as "fail" without the possibility of a resit or one of the examinations referred to in Clause 2 No. 2 has definitively been failed and there is no possibility to replace it with an examination in another subject.

Otherwise admission may only be refused if, within the remit of the German Constitution or at one of the partner universities, the candidate has lost his entitlement to an examination in the same degree program through missing a deadline for retaking it.

#### § 28 Issue and Preparation of the Written Part of the Master's Thesis

(1) The topic of the written part of the Master's thesis shall be set by the person supervising the written part of the Master's thesis. The written part of the Master's thesis shall be issued via the Chair of the Examination Board. The day on which the topic is notified to the candidate shall be deemed to be the date of issue. The date shall be recorded.

(2) The time allotted for the written part of the Master's thesis shall be not more than four months. The subject, assignment and scope of the written part of the Master's thesis shall be limited by the supervisor so that the time allotted for the written part of the Master's thesis can be observed. In exceptional cases, e.g. illness, the Chair of the Examination Board may extend the allotted time by up to six weeks after receiving a justified application from the candidate before the expiry of the deadline. The supervisor should be consulted concerning this application.

(3) The topic of the written part of the Master's thesis may be returned without specifying any reason once only and only within the first six weeks of the allotted time. In the event of a resit in accordance with § 14 (3) Sentence 1, return is only permissible if the candidate has not made any use of this option when preparing the written part of the Master's thesis for the first time.

(4) § 18 a applies accordingly.

# § 29

# Submission and Assessment of the Written Part of the Master's Thesis

(1) The written part of the Master's thesis shall be submitted within the specified time to the Chair of the Examination Board. The date of submission shall be recorded; if the work is delivered by post, the relevant criterion for determining the date is the date it was received by the post office. Upon submission of the written part of the Master's thesis, the candidate shall provide a written assurance that he has prepared his work or, in the event of group work, his appropriately marked part of the work, without assistance and that he has not used any sources and aids other than those stated and identified in citations. If the written part of the Master's thesis is not submitted within the specified time, it shall be deemed to have been assessed as "fail" pursuant to § 15 (1) Sentence 2.

(2) The written part of the Master's thesis shall be assessed and evaluated by two examiners. One of the examiners should have supervised the written part of the Master's thesis. The second examiner shall be appointed by the Examination Board. At least one of the examiners must be one of the full-time university lecturers who teach on the degree program. The individual assessment shall be made in accordance with § 13 (1) and substantiated in writing. The grade of the written part of the Master's thesis shall be derived from

the arithmetic mean of the individual assessments in accordance with § 13 (3), provided that the difference is not more than 2.0. If the difference is more than 2.0, the Examination Board shall appoint a third examiner to assess the written part of the Master's thesis. In this case, the grade of the written part of the Master's thesis shall be derived from the arithmetic mean of the two better grades in accordance with § 13 (3). However, the written part of the Master's thesis can then only be assessed as "sufficient" or higher if at least two grades are "sufficient" or higher.

#### § 30 Colloquium

(1) The colloquium (oral part of the Master's thesis) supplements the written part of the Master's thesis and shall be assessed separately. The colloquium is generally open to the public, and commences with a presentation of the results of the written part of the Master's thesis. The aim of the colloquium is to establish whether the candidate is able to orally describe and, without assistance, to justify the results of the written part of the Master's thesis, the principles on which it is based, its interdisciplinary framework and its extradisciplinary ramifications and to assess its practical significance.

(2) A candidate can only be admitted to the colloquium if

- the requirements referred to in § 27 (1) for admission to the written part of the Master's thesis have been satisfied, and the candidate has enrolled in accordance with § 48 (1) HG or has been admitted as a cross-registered student in accordance with § 52 (2) HG, however only where it is the first time the candidate is admitted to the colloquium,
- 2 90 credits have been achieved in examinations in accordance with Appendixes 1 and 2
- 3. the written part of the Master's thesis has been assessed as at least sufficient.

The application for admission shall be sent to the Chair of the Examination Board. The evidence concerning the admission requirements referred to in Clause 1 shall be appended to the application, unless the Examination Board has already received it; a statement concerning previous attempts to take corresponding examinations and whether the attendance of listeners is opposed shall also be appended. The candidate may also apply for admission to the colloquium when registering for the written part of the Master's thesis; in this case, admission to the colloquium takes place as soon as the Examination Board has all the necessary evidence and documents. Otherwise § 27 (4) shall apply accordingly to admission to the colloquium and refusal thereof.

(3) The colloquium shall be held jointly as an oral examination by the examiners specified for the written part of the Master's thesis, and assessed by them accordingly. In the event of § 29 (2) Sentence 6, the colloquium shall be held by the examiners whose individual assessments were used to derive the grade of the written part of the Master's thesis. The colloquium shall last around 35 minutes per candidate, around 20 minutes of which are allotted to the presentation part per candidate. Only questions posed by the examiners are permissible. The provisions applicable to oral examinations (§ 20) shall apply accordingly to the colloquium.

(4) Rights of third parties (e.g. confidential internal company matters) shall be protected.

#### § 31 Grade and Credits for the Master's Thesis

(1) The grade for the Master's thesis shall be derived from the weighted average of the arithmetic values of the individual grades for the written part of the Master's thesis and the colloquium in accordance with 13 (4) and (5). The following weighting is applied:

| Written part of the Master's thesis | fivefold |
|-------------------------------------|----------|
| Colloquium                          | single.  |

- (2) 30 credits shall be awarded for passing the Master's thesis.
- (3) If the written part is not passed (5,0), the colloquium will not take place.

(4) The colloquium must be passed.

#### § 32 Result of the Master's Examination, Publication of the Written Part of the Master's Thesis

(1) The Master's examination has been passed if, in accordance with Appendixes 1 and 2, 90 credits have been achieved in module examinations and 30 credits on account of the Master's thesis.

(2) The Master's examination in the full-time program has not been passed if

- a) an examination in a subject from the first semester stipulated in Appendix 1 has been definitively failed and no possibility exists to substitute it with an examination in another subject,
- b) the examination in a subject from the second semester stipulated in Appendix 1 has been definitively failed and no possibility exists to substitute it with an examination from another subject or the examination in an optional compulsory subject from the second semester stipulated in Appendix 1 has definitively been assessed as "fail" or is deemed to have been assessed as "fail" and no possibility exists to substitute it with an examination from another subject or the examination in the subject "Innovation and Development Strategies (IDS)" has definitively been assessed as "fail" or is deemed to have been assessed as "fail".
- c) the examination in a subject from the third semester stipulated in Appendix 1 has definitively been assessed as "fail" or is deemed to have been assessed as "fail" or an examination from the third semester stipulated in Appendix 1 has been definitively failed and no possibility exists to substitute it with an examination in another subject,
- d) the written part of the Master's thesis or the colloquium has definitively been assessed as "fail " or is deemed to have been assessed as "fail".
- (3) The Master's examination in the part-time program has not been passed if
  - a) an examination in a subject from the first and third semester stipulated in Appendix 2 has been definitively failed and no possibility exists to substitute it with an examination in another subject,

- b) the examination in a subject from the second and fourth semester stipulated in Appendix 2 has been definitively failed and no possibility exists to substitute it with an examination from another subject or the examination in an optional compulsory subject from the second and fourth semester stipulated in Appendix 2 has definitively been assessed as "fail" or is deemed to have been assessed as "fail" and no possibility exists to substitute it with an examination from another subject or the examination in the subject "Innovation and Development Strategies (IDS)" has definitively been assessed as "fail" or is deemed to have been assessed as "fail",
- c) the examination in a subject from the fifth and sixth semester stipulated in Appendix 2 has definitively been assessed as "fail" or is deemed to have been assessed as "fail" or an examination from the fifth and sixth semester stipulated in Appendix 2 has been definitively failed and no possibility exists to substitute it with an examination in another subject,
- d) the written part of the Master's thesis or the colloquium has definitively been assessed as "fail " or is deemed to have been assessed as "fail".

(4) A decision accompanied by information on rights of appeal shall be issued with regard to a failed Master's examination. An English translation shall be attached. On application, the Chair of the Examination Board shall issue a certificate after the student has left the university which contains the examinations taken and the grades awarded for them, as well as the examinations still required for the Master's examination. It must be clear from the certificate that the candidate has definitively failed the Master's examination. On application, the chair of the Examination Board shall issue a certificate which contains only the examinations taken and the grades awarded for them.

(5) Each candidate who has passed the Master's thesis shall provide HS OWL with a copy of the written Master's thesis on CD-ROM for inclusion in the digital University Library and for publishing at the University Library; for the purpose of publishing at the University Library, copies of the files may be made and the files may be stored. Confidential parts of the respective Master's thesis are excluded from this provision.

#### § 33 Certificate and Final Grade

(1) A Master's examination certificate in English shall immediately be drawn up, preferably within four weeks of the last examination; a copy in German shall be issued on request. The certificate shall contain the grades of all module examinations, the subject and grade of the project work, the subject and grade of the Master's thesis and the final grade of the Master's examination. In each case, the grade shall be stated in words and – in brackets afterwards – in figures to one decimal place; the assessment "pass" shall be entered for ungraded examinations. The number of credits obtained with the examination shall be stated after the name of each examination. The total number of credits obtained through these examinations shall be stated. The certificate is signed by the Chair of the Examination Board. The certificate shall contain the date on which the last examination was taken.

(2) The final grade of the Master's examination shall be derived from the arithmetic mean of the grades weighted by credits for the module examinations, the Master's thesis including the colloquium in accordance with § 13 (4) and (5). Ungraded examinations are not taken into consideration in the calculation of the final grade.

#### § 34 Diploma Supplement and Transcript of Records

(1) Along with the Master's Degree Certificate, the graduate shall be issued with a Diploma Supplement and a Transcript of Records

(2) The Diploma Supplement shall be issued in English and German. It shall contain details of the degree program, its requirements and content, the grading system and the type of degree. Furthermore, it shall contain a grading sheet that allows classification of the final grade in the examination results of the graduation year of the respective degree program (grading percentage table). It shall also contain information about the higher education institution and the German system of academic studies.

(3) The Transcript of Records shall particularly provide information about the contents of the subjects/modules passed through examination and the credits obtained.

#### § 35 Master's Degree Certificate

(1) Before or at the time of the receipt of the certificate, the candidate shall be issued with the Master's degree certificate showing the date of the certificate and details of the degree program. The conferral of the academic degree in accordance with § 3 is recorded in the Master's degree certificate. The Master's degree certificate shall be issued in English; a copy shall be issued in German upon request.

(2) The certificate shall be signed by the President and the Chair of the Examination Board and sealed using the embossed seal of OWL University of Applied Sciences.

#### § 36 Additional Subjects

(1) The candidate can take examinations in other subjects that he is not required to take (additional subjects). The result of an examination in these subjects and the number of credits obtained will, on application, be included in the certificate, but will not be taken into account in determining the final grade and total number of credits.

(2) Examinations in additional subjects (additional examinations) can be taken in all compulsory and optional compulsory subjects from other degree programs at OWL University of Applied Sciences for which the candidate is not enrolled and which have no equivalent in the range of subjects offered in the Master's program in Information Technology.

(3) The admission requirements for additional examinations in accordance with Clause 2 are evidence of certificates of attendance, proof of academic achievement and passed examinations which, according to the Examination Regulations for the other degree program, are admission requirements for the examination the candidate aspires to take, insofar as these convey direct basic knowledge for the examinations passed as required here, comparable examinations shall be proved with regard to the necessary basic knowledge.

(4) The application for admission to an additional examination in accordance with Clause 2 shall be submitted to the Examination Board of the other degree program. The candidate shall present the documents required for admission. The Examination Board of the other degree program shall decide on admission in agreement with the Examination Board for

the Master's program in Information Technology. The candidate can only be admitted if the existing capacities and possibilities allow it. There is no legal entitlement to admission.

(5) The Examination Board for the Master's program in Information Technology shall rule on subjects outside of the range of compulsory and optional compulsory subjects of degree programs at OWL University of Applied Sciences in which additional examinations can be taken. Admission is also granted by the Examination Board for the Master's program in Information Technology.

# IV. Non-Validity of Examinations, Revocation of the Master's Degree, Inspection of the Examination Documents

#### § 37 Non-Validity of the Master's Examination, Revocation of the Master's Degree

(1) If a candidate cheats during an examination and this does not become known until after the certificate has been issued, the Examination Board may subsequently accordingly correct the grades for those examinations in which the candidate has cheated and declare the Master's examination wholly or partially failed.

(2) If the conditions for admission to an examination were not fulfilled, without the candidate having intended to cheat about this and this does not become known until after the certificate has been issued, this shortcoming is remedied by passing the examination. If the candidate has wrongly obtained admission by intent, the Examination Board shall decide on the legal consequences taking account of the Act on Administrative Procedures for the Federal State of North Rhine-Westphalia.

(3) The person concerned shall be given an opportunity to comment before a decision is taken.

(4) The incorrect examination certificate shall be withdrawn and, if necessary, a new one issued. No decision pursuant to Clause 1 and Clause 2 Sentence 2 may be made after a period of five years has elapsed following the issue of the examination certificate.

(5) If the examination has been declared to have been failed overall, the Master's degree shall be revoked and the Master's degree certificate withdrawn.

#### § 38

# Inspection of the Examination Documents

After the result of each examination has been released, the candidate shall, on request, be allowed in due course to inspect the respective examination documents relating to him or her. The Chair of the Examination Board shall determine the location and date of this inspection.

#### **V. Final Provisions**

#### § 39 \* Transitional Provisions

#### § 40 \*\* Entry into Force and Publication

<sup>\*</sup> The transitional provisions of the MPO Information Technology in the version of the announcement of March 6, 2018 (Official Journal of OWL University of Applied Sciences 2018 / No. 5) result from this MPO (ibidem § 39).

<sup>\*\*</sup> The regulations for the entry into force and the publication of the MPO Information Technology in the version of the announcement of March 6, 2018 (Official Journal of OWL University of Applied Sciences 2018 / No. 5) result from this MPO (ibidem § 40). The regulations on the entry into force and the publication of the statutes amending the Master Examination Regulations Information Technology of July 2, 2018 (Official Journal OWL University of Applied Sciences 2018 / No. 27) result from this amendment (ibidem Article II)

# Course Curriculum

# Master's Program Information Technology (full-time)

| Sub-            |   |                |          |       |       |       |    |        |  |
|-----------------|---|----------------|----------|-------|-------|-------|----|--------|--|
| ject            | Subject   | Code           | 1st      | 2nd   | 3rd   | 4th   | СН | CR     |  |
| No.             |   |                | sem.     | sem.  | sem.  | sem.  |    |        |  |
| First Semester  |   |                |          |       |       |       |    |        |  |
| 5913            | Probability and Statistics                          | PAS            | 4        |       |       |       | 4  | 5 CR   |  |
| 5914            | Discrete Signals and Systems                        | DSS            | 4        |       |       |       | 4  | 5 CR   |  |
| 5915            | Advanced Topics in Algorithms                       | ATA            | 4        |       |       |       | 4  | 5 CR   |  |
| 5916            | Usability Engineering                               | UEN            | 4        |       |       |       | 4  | 5 CR   |  |
| 5917            | Embedded Systems Design                             | ESD            | 4        |       |       |       | 4  | 5 CR   |  |
| 5931            | Lab Project 1                                       | LAB1           | 4        |       |       |       | 4  | 5 CR   |  |
|                 | Second Semester, Compulsory Subjects                |                |          |       |       |       |    |        |  |
| 5912            | Innovation and Development Strategies               | IDS            |          | 5     |       |       | 5  | 6 CR   |  |
| 5932            | Lab Project 2                                       | LAB2           |          | 4     |       |       | 4  | 4 CR   |  |
|                 | Second Semester, Compulsory Optional Subject        | <b>ts</b> (4 o | ut of 6) |       |       |       |    |        |  |
| 5918            | Communication for Distributed Systems <sup>1)</sup> | CDS            |          | 4     |       |       | 4  | 5 CR   |  |
| 5919            | Information Fusion <sup>1)</sup>                    | IFU            |          | 4     |       |       | 4  | 5 CR   |  |
| 5920            | Network Security <sup>1)</sup>                      | NWS            |          | 4     |       |       | 4  | 5 CR   |  |
| 5921            | Software Engineering for Web Services <sup>1)</sup> | SWE            |          | 4     |       |       | 4  | 5 CR   |  |
| 5922            | Intelligent Technical Systems <sup>1)</sup>         | ITS            |          | 4     |       |       | 4  | 5 CR   |  |
| 5923            | Industrial Software Engineering <sup>1)</sup>       | ISE            |          | 4     |       |       | 4  | 5 CR   |  |
|                 | Third Semester                                      |                |          |       |       |       |    |        |  |
| 5910            | Seminar on Industrial Information Technologies      | SEM            |          |       | х     |       |    | 3 CR   |  |
| 5911            | Scientific Methods and Writing                      | SMW            |          |       | 2     |       | 2  | 3 CR   |  |
| 5906            | Management Skills and Business Administration       | MBA            |          |       | 5     |       | 5  | 6 CR   |  |
| 5909            | Project Work  | PIT            |          |       | х     |       |    | 18CR   |  |
| Fourth Semester |   |                |          |       |       |       |    |        |  |
| -               | Master's Thesis                                     | MAT            |          |       |       | х     |    | 30 CR  |  |
|                 | Sum of CH   |                | 24       | 25    | 7     |       | 56 |        |  |
|                 | Sum of CR   |                | 30 CR    | 30 CR | 30 CR | 30 CR |    | 120 CR |  |

CR = Credits (1 CR corresponds to 30 h), CH = contact hours

<sup>1)</sup> Four out of a total of six compulsory optional subjects shall be selected.

# Course Curriculum Master's Program Information Technology (part-time)

| Sub-<br>ject<br>No.         | Subject   | Code | 1st<br>sem. | 2nd<br>sem. | 3rd<br>sem. | 4th<br>sem. | 5th<br>& 6th.<br>sem. | 7th<br>& 8th.<br>sem. | СН | CR     |
|-----------------------------|---|------|-------------|-------------|-------------|-------------|-----------------------|-----------------------|----|--------|
|                             | First Semester                                      |      |             |             |             |             |                       |                       |    |        |
|                             | Probability and Statistics                          | PAS  | 4           |             |             |             |                       |                       | 4  | 5 CR   |
| 5914                        | Discrete Signals and Systems                        | DSS  | 4           |             |             |             |                       |                       | 4  | 5 CR   |
| 5915                        | Advanced Topics in Algorithms                       | ATA  | 4           |             |             |             |                       |                       | 4  | 5 CR   |
|                             | Second Semester                                     |      |             |             |             |             |                       |                       |    |        |
| 5912                        | Innovation and Development Strategies               | IDS  |             | 5           |             |             |                       |                       | 5  | 6 CR   |
| 5918                        | Communication for Distributed Systems 1)            | CDS  |             | 4           |             |             |                       |                       | 4  | 5 CR   |
| 5919                        | Information Fusion <sup>1)</sup>                    | IFU  |             | 4           |             |             |                       |                       | 4  | 5 CR   |
| 5920                        | Network Security <sup>1)</sup>                      | NWS  |             | 4           |             |             |                       |                       | 4  | 5 CR   |
|                             | Third Semester                                      |      |             |             |             |             |                       |                       |    | -      |
| 5916                        | Usability Engineering                               | UEN  |             |             | 4           |             |                       |                       | 4  | 5 CR   |
| 5917                        | Embedded Systems Design                             | ESD  |             |             | 4           |             |                       |                       | 4  | 5 CR   |
| 5931                        | Lab Project 1                                       | LAB1 |             |             | 4           |             |                       |                       | 4  | 5 CR   |
|                             | Fourth Semester                                     |      |             |             |             |             |                       |                       |    | -      |
| 5921                        | Software Engineering for Web Services <sup>1)</sup> | SWE  |             |             |             | 4           |                       |                       | 4  | 5 CR   |
| 5922                        | Intelligent Technical Systems <sup>1)</sup>         | ITS  |             |             |             | 4           |                       |                       | 4  | 5 CR   |
| 5923                        | Industrial Software Engineering <sup>1)</sup>       | ISE  |             |             |             | 4           |                       |                       | 4  | 5 CR   |
| 5932                        | Lab Project 2                                       | LAB2 |             |             |             | 4           |                       |                       | 4  | 4 CR   |
|                             | Fifth and Sixth Semester                            |      |             |             |             |             |                       |                       |    | ·      |
| 5910                        | Seminar on Industrial Information Technologies      | SEM  |             |             |             |             | x                     |                       |    | 3 CR   |
| 5911                        | Scientific Methods and Writing                      | SMW  |             |             |             |             | 2                     |                       | 2  | 3 CR   |
| 5906                        | Management Skills and Business Administration       | MBA  |             |             |             |             | 5                     |                       | 5  | 6 CR   |
| 5909                        | Project Work  | PIT  |             |             |             |             | x                     |                       |    | 18CR   |
| Seventh and Eighth Semester |   |      |             |             |             |             |                       |                       |    |        |
| -                           | Master's Thesis                                     | MAT  |             |             |             |             |                       | x                     |    | 30 CR  |
|                             | Sum of CH   |      | 12          | 13          | 12          | 16          | 7                     |                       | 56 |        |
|                             | Sum of CH   |      | 15CR        | 16 CR       | 15 CR       | 14 CR       | 30 CR                 | 30 CR                 | 1  | 120 CR |

CR = Credits (1 CR corresponds to 30 h), CH = contact hours

<sup>1)</sup> Four out of a total of six compulsory optional subjects shall be selected.