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Subject-specific study and examination regulations for the English-taught master's programme in Communication and Information Technology offered by the Faculty of Engineering, Computer Science and Psychology at Ulm University of 18 January 2021

Based on §§ 32 (3) sentence 1 Federal State Higher Education Act (*Landeshochschulgesetz-LHG*) in the version of article 1 of the third law on changes to higher education regulations (*Drittes Hochschulrechtsänderungsgesetz- 3. HRÄG*) of 1 April 2014 (law gazette no. 6, p 99ff) last amended by article 1 of the law of 13 March 2018 (law gazette no. 5, p. 85ff), the Senate of Ulm University adopted the following Subject-specific study and examination regulations for the bachelor's and master's programmes in Electrical Engineering and Communications and Computer Engineering. The President of Ulm University gave his consent on 18 January 2021 in accordance with § 32 (3) sentence 1 of the *LHG*.

Table of Contents

I. General provisions

- § 1 Scope of application
- § 2 Study programmes, academic degrees (§ 2 General Framework)
- § 3 Start of the programme (§ 3 General Framework)
- § 4 Standard period of study (§ 5 General Framework)
- § 5 Deadlines (§ 6 (8) and (9) General Framework)
- § 6 Courses and examination in English (§ 7 General Framework)
- § 7 Internship (§ 8 General Framework)
- § 8 Subject examination board (§ 10 General Framework)
- § 9 Courses, examination achievements (§ 16 General Framework)
- § 10 Organisation of module examinations (§ 13 and 16 General Framework)
- § 11 Related study programmes (§ 12 General Framework)
- § 12 Regulations regarding the module master's thesis (§ 16c General Framework)
- § 13 Subject-specific admission requirements for the master's thesis
- § 14 Evaluation of module examinations (§ 17 General Framework)
- § 15 Repetition of module examinations (§ 20 General Framework)

II. Master's programme in Communication and Information Technology

- § 16 Objectives of the programme in Communication and Information Technology
- § 17 Study contents, admission to module (part) examinations in the master's programme in Communication and Information Technology (§ 16 General Framework)
- § 18 Specialisations in the master's programme in Communication and Information Technology

III. Final provisions

§ 19 Effective date and transitional provisions

I. General provisions

§ 1 Scope of application

- (1) These Subject-specific study and examination regulations contain specific regulations for the master's programme in Communication and Information Technology.
- (2) These Subject-specific study and examination regulations supplement the General provisions on study and examination regulations for bachelor's and master's programmes at Ulm University (General Framework) as amended. In case of doubt, the General Framework has priority.

§ 2 Study programmes, academic degrees (§ 2 General Framework)

(4) The Faculty of Engineering, Computer Science and Psychology at Ulm University offers the consecutive English master's programme in Communication and Information Technology leading to the degree of "Master of Science" ("MSc").

§ 3 Start of the programme (§ 3 General Framework)

Studies in the master's programme in Communication and Information Technology begin in the summer semester.

§ 4 Standard period of study (§ 5 General Framework)

The standard period of study is four semesters.

§ 5 Deadlines (§ 6 (8) and (9) General Framework)

Students must have taken and passed the modules listed in the study curriculum of the master's programme by the end of the second examination period of the fourth semester in the programme. Students failing to obtain a minimum of 30 credit points by the end of the second examination period of the second semester in the programme lose their right to examination in this programme unless they are not responsible for exceeding the deadline. They lose their right to examination if they do not successfully complete the modules indicated in the corresponding study curriculum – thus completing the master's programme— by the end of the second examination period of the seventh semester unless they are not responsible for exceeding this deadline.

§ 6 Courses and examinations in English (§ 7 General Framework)

- (1) The courses in the compulsory and elective modules (except language courses) are taught in English. It is possible to select modules taught in German.
- (2) As a rule, exams are conducted in the course language.

§ 7 Internship (§ 8 General Framework)

In the master's programme in Communication and Information Technology, students can choose to do a minimum 9-week internship as an ungraded practical module under § 17 (2) no 4. Successful completion of this module requires an internship report written by the student and a certificate of completion of the internship by the employer (proof of completion of internship). The requirements for such an internship are set out in the instruction sheet "*Industriepraxis*". A successfully completed internship corresponds to 9 CP.

§ 8 Subject examination board (§ 10 General Framework)

- (1) The master's programme in Communication and Information Technology has a subject examination board.
- (2) The subject examination board decides in cases of doubt covered by neither these Subjectspecific study and examination regulations nor the General Framework.
- (3) The respective subject examination board consists of seven members. It is composed of four full-time university lecturers or assistant professors from the Faculty of Engineering, Computer Science and Psychology at Ulm University, two scientific staff members from the Faculty of Engineering, Computer Science and Psychology at Ulm University and one student of Communication and Information Technology in an advisory capacity. The term of office of the members with voting rights is two years; that of the student member is one year. It is possible to re-elect members.

§ 9 Courses, examination achievements (§ 16 General Framework)

- (1) The programme's contents will be conveyed, in particular, in the following types of courses:
 - lectures
 - practice classes (Übungen)
 - tutorials
 - laboratory courses
 - projects
 - seminars
- (2) The master's examination consists of the master's thesis and a concluding presentation and discussion thereof as well as written and/or oral examinations corresponding to the modules listed in the study curriculum.
- (3) The master's programme may require study achievements in a different written or oral form. These may be, in particular, active participation in classes or accompanying practical courses conducted within the framework of the respective courses of a module (part). Achieving a certain number of points or a certain evaluation, e.g. in classes or accompanying practical courses, may be defined as a requirement for admission to the final examination of a module (part). Details regarding type, scope and content of such achievements are determined by the person responsible for the respective course. Such requirements must be published in the

module handbook no later than two weeks before the beginning of the course.

- (4) In addition to the examination and study achievements named in the General Framework, the following may be required:
 - design work, presentations and implementations, as well as
 - written compositions on a topic (seminar paper, internship report, assignment)
- (5) Examinations may be –fully or partially– conducted via a computer programme; however, confidentiality of data and integrity of results must be guaranteed.

§ 10 Organisation of module examinations (§ 13 and 16 General Framework)

- (1) As a rule, written module examinations ("Klausur") in the master's programme are offered in the first four weeks of the lecture-free period; repeat examinations take place in the three weeks preceding and the first week of the lecture period of the following semester (examination periods). The subject examination board may approve exceptions. The period between the publication of examination results and corresponding repeat examinations may not be less than two weeks.
- (2) Written examinations may not have more than 50% multiple choice questions.
- (3) Admission to final module examinations may, according to § 9 (3), be made subject to certain study achievements to be completed during a course.
- (4) Place and time of oral examinations are organised by the examiners themselves. The duration of oral examinations is between 30 and 50 minutes per student. Dates for oral examinations are offered, as a rule, first in the lecture-free period following the module and then, in the two subsequent semesters, at least once per semester.

§ 11 Related study programmes (§ 12 General Framework)

Study programmes related to Communication and Information Technology according to § 14 (2) General Framework are, in particular, programmes in electrical engineering, information technology, information systems engineering and computer engineering.

§ 12 Regulations regarding the module master's thesis (§ 16c General Framework)

- (1) The master's thesis corresponds to 30 CP. Students have six months to complete the master's thesis.
- (2) The master's thesis comprises a presentation of approx. 45 minutes before the examiners including a discussion of the subject of the master's thesis or a colloquium on the topic of the thesis. (Extra CP)
- (3) The master's thesis must be submitted in due time to the student administration and examinations office (*Studiensekretariat*). It must be submitted digitally (as a PDF file). The date of submission must be recorded.
- (4) As a rule, the master's thesis is written in English. With the consent of the first examiner it may be written in German.
- (5) If a master's thesis is prepared outside the institutes involved in the programme, a thesis project plan must be submitted to the subject examination board for approval. The subject examination board must check, in particular, whether the planned external thesis project

complies with the scientific principles of the study course in Communication and Information Technology. This approval must be submitted to the *Studiensekretariat* when registering for the master's thesis.

§ 13 Subject-specific admission requirements for the master's thesis

- (1) Admission to the module master's thesis is subject to students having earned a minimum of 75 CP.
- (2) Should the requirements under paragraph 1 above not be fulfilled, the subject examination board may, at the student's request, authorise admission to the master's thesis.

§ 14 Evaluation of module examinations (§ 17 General Framework)

- (1) All examination results weighted relative to their corresponding credit points– count towards the overall grade of the master's programme.
- (2) Once the total of 120 CP from the module groups named in § 17 (2) has been reached, no further modules can be considered.
- (3) The master's thesis must be assessed by the examiner who determined the topic together with a second examiner.

§ 15 Repetition of module examinations (§ 20 General Framework)

(1) Module examinations graded as "fail" (5.0) or deemed not to have been passed may be repeated twice.

II. Master's programme in Communication and Information Technology

§ 16 Objectives of the programme in Communication and Information Technology

The objective of the master's programme is to qualify students to work independently as engineers. The master's programme deepens and complements the scientific and methodological qualifications acquired during undergraduate studies. The master's degree is an advanced academic degree in the field of electrical engineering. The master's examination leading to the award of the master's degree establishes whether a student is capable of independently investigating problems in the field of engineering applying scientific principles, relevant methods and the acquired insights.

§ 17 Study contents, admission to module examinations in the master's programme in Communication and Information Technology

- (1) Each module concludes with one or several module examination(s).
- (2) Module examination corresponding to the study curriculum of Communication and Information Technology must be completed in the following module groups:
 - 1. Compulsory modules corresponding to a minimum of 22 CP.
 - 2. Specialisation modules corresponding to a minimum of 36 CP
 - 3. Complementary modules corresponding to a minimum of 16 CP.
 - 4. Practical modules corresponding to a minimum of 10 CP
 - 5. Master's thesis, 30 CP

- (3) According to paragraph 2 no. 3, the modules "Deutsch für Communication and Information Technology I" and "Deutsch für Information and Communications Technology II" must be completed in the module group Complementary modules. Students with German as their mother tongue and foreign nationals with a German university entrance qualification as well as students with an excellent command of German must choose modules from the offer of the Language Centre or the Humboldt Study Centre corresponding to not less than 6 CP instead of the modules named in sentence 1.
- (4) The eligible modules in the module groups named in paragraph 2 no. 1 to 4 are listed in the study curriculum; the requirements are described in the module handbook. Study curriculum and module handbook must be kept up to date.

§ 18 Specialisations in the master's programme in Communication and Information Technology

At the proposal of the study commission, the Faculty Council can decide on the creation of programme specialisations. A specialisation is aligned to the research foci in the discipline of Electrical Engineering. The modules that can be elected within a specialisation are defined in the study curriculum. Upon request, students are issued a confirmation of the successful completion of the required modules of a specialisation; this confirmation is issued by the *Studiensekretariat* together with documentation relating their final degree.

III. Final provisions

§ 19 Effective date and transitional provisions

- (1) These study and examination regulations take effect from the summer semester 2021. They are published in the Official Bulletin of Ulm University. At the same time, the Subject-specific study and examination regulations of Ulm University for the master's programme in Communications Technology offered by the Faculty of Engineering, Computer Science and Psychology at Ulm University of 8 March 2017, published in the Official Bulletin of Ulm University No. 9 of 16 March 2017, pages 195-200 cease to have effect.
- (2) Paragraph 1 does not apply to students who, in the summer semester 2021, are enrolled in a semester higher than the first semester in the master's programme in Communications Technology. These students complete their studies under the Subject-specific study and examination regulations for the master's programme in Communications Technology offered by the Faculty of Engineering, Computer Science and Psychology of 8 March 2017.
- (3) § 15 of these regulations also apply to students enrolled in a higher semester in the master's programme in Communications Technology in the summer semester 2021 and completing their studies under the Subject-specific study and examination regulations for the master's programme in Communications Technology offered by the Faculty of Engineering, Computer Science and Psychology at Ulm University of 8 March 2017.

Ulm, 18 January 2021

signed
Prof. Dr.-Ing. Michael Weber
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