

I. Legal and Administrative Provisions

Faculties

Study and Examination Regulations for the Consecutive Double-Degree Master Program in ICT Innovation at Faculty IV – Electrical Engineering and Computer Science – of Technische Universität Berlin

of 20 January 2016

On 20 January 2016, the Faculty Council of Faculty IV – Electrical Engineering and Computer Science – of Technische Universität Berlin enacted the following study and examination regulations for the international, consecutive double-degree master program in ICT Innovation in accordance with Section 18 (1) no. 1 of the University Charter of Technische Universität Berlin and Section 71 (1) no. 1 of the Act on Higher Education Institutions in the State of Berlin (Berliner Hochschulgesetz – BerlHG), as amended on 26 July 2011 (Berlin Gazette of Laws and Ordinances [GVBl.], p. 378).*)

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I. General Part

Section 1 – Scope of Application

(1) These study and examination regulations govern both the objectives and organization of studies, and the requirements and conduct of examinations in the master program in ICT Innovation (Innovation in Information and Communication Technology) at Technische Universität Berlin. They supplement the Regulations Governing General Study and Examination Procedures (AllgStuPO) of Technische Universität Berlin with course-specific regulations.

(2) The course of study is organized in cooperation with the EIT Digital partner universities (see Appendix 1).

(3) These regulations govern only the part of the program that is studied at Technische Universität Berlin, as well as the requirements for the award of the master degree by Technische Universität Berlin.

*) ratified by the Executive Board of Technische Universität Berlin on 27 May 2016

Section 2 – Entry into Force / Expiry

(1) These regulations shall enter into force on the day after their publication in the Official Gazette of Technische Universität Berlin.

(2) The study regulations and the examination regulations for the master program in ICT Innovation of 16 February 2012 (Official Gazette TU 09/2012, p. 242), as amended on 8 July 2015 (Official Gazette TU 02/2016, p. 6ff.), will expire six semesters after the study and examination regulations stipulated in this document will have entered into force.

(3) Students enrolled in the master program in ICT Innovation at Technische Universität Berlin prior to the entry into force of these study and examination regulations shall complete their studies in accordance with the study and examination regulations of 16 February 2012 (Official Gazette TU 09/2012, p. 242), in the version that was valid at the time of their enrollment. Students who have not completed their studies after the expiry of the regulations pursuant to Subsection 2 shall continue their studies in accordance with the new study and examination regulations.

II. Objectives and Organization of Studies

Section 3 – Qualification Objectives, Course Contents and Professional Fields of Activity

(1) Graduates shall be familiar with the advanced academic and subject-specific methods and approaches of their major subjects (hereinafter referred to as technical majors), and shall be able to apply them, critically reflect on them and contribute themselves to their further development. They shall be able to think interdisciplinarily, deal with problems autonomously, and generate and examine new ideas systematically. In addition, they shall be capable of transforming innovations into sustainable business solutions. They shall be qualified to apply knowledge, ideas and technologies in order to develop new or significantly improved products, services, processes or procedures in the field of information and communication technology. Graduates shall be qualified to investigate and assess entrepreneurial projects and their potential for growth, and, based on their practical experience, they shall be able to formulate new research questions. Within the limits of their work context, they shall have a holistic understanding of the value added by means of university education, research and entrepreneurial activities. They shall be able to convey questions and work results in a clear and unambiguous manner, as well as present them adequately in oral and written form. Within the limits of their working area, graduates shall be aware of the challenges related to responsible behavior, good academic practice and sustainability. They shall be capable of cooperating within intercultural and interdisciplinary teams, and they shall demonstrate leadership qualities and prove their competence to make decisions.

(2) As part of the master program in ICT Innovation, students shall acquire specialized knowledge in one technical major that is to be chosen in combination with the minor in “Innovation and Entrepreneurship”, which comprises 25% of the curriculum.

Students are to choose one of the following technical majors as their profile subject within the master program:

- Cloud Computing and Services
- Data Science

- Embedded Systems
- Human Computer Interaction and Design
- Internet Technology and Architecture

The program is taught in the English language.

Students shall acquire analytical and creative skills in all topic areas that are of great significance for the conduct of professional and scientific activities in a society shaped by information science. In order to reach these and other interdisciplinary objectives – for instance, a modern understanding of diversification – exercises are mainly carried out in small groups, with projects focusing on the practical realization of acquired methods and the learning of self-organization within teams, and seminars serving the purpose of enabling presentation techniques to be practiced and improved. While preparing the master thesis, students shall learn to plan and conduct a research project on their own.

(3) Graduates shall become qualified to carry out challenging tasks related to research and development in their respective major fields of study. Potential employers are, for instance, research institutions with application-oriented profiles, as well as small, medium and large-sized companies in the information and communications industry. As a further professional alternative, graduates could found their own companies. Furthermore, graduates shall be qualified to work in the academic sphere and continue their scientific qualification by means of pursuing a doctoral degree.

Section 4 – Course Start, Standard Period of Study and Required Coursework

- (1) The studies shall begin in the winter semester.
- (2) The standard period of study, including the writing of the master thesis, shall be four semesters.
- (3) The required coursework in the master program amounts to 120 credits.
- (4) The educational program and the entire examination procedure shall be designed and organized in such a way that the studies are capable of being completed within the standard period of study.

Section 5 – Organization of Studies

(1) Students have the right to lay down individually the order of progression of their own courses of study. However, they are obliged to comply with the provisions of these study and examination regulations. The chronology of modules is recommended according to the sample course schedules in Appendix 2 to these regulations. This does not apply to obligations arising from the definition of subject-specific admission requirements for modules.

(2) As part of the innovation network EIT Digital, a Master School was established with headquarters at the KTH Royal Institute of Technology in Stockholm that offers a master program in ICT Innovation in a variety of technical majors. Technische Universität Berlin offers the following major subjects to be elected with the mandatory minor subject of “Innovation and Entrepreneurship”, which amounts to 25% of the total credits in the program:

- Cloud Computing and Services
- Data Science (in the second academic year only)
- Embedded Systems
- Human Computer Interaction and Design (in the second academic year only)
- Internet Technology and Architecture

(3) Students must achieve a total of 120 credits; pursuant to Subsection 2, 54 credits must be earned in modules of the chosen major subject (technical major), 30 credits in modules of the minor subject of “Innovation and Entrepreneurship”, 30 credits in the master thesis and 6 credits in freely selected modules. At the beginning of the winter semester, students receive a list of recommended modules for the 6 credits in freely selected modules. For the major subjects and the minor subject, the modules that must be covered in both the compulsory and compulsory elective areas, as well as their scope, are specified in the sample course schedules and the list of modules (Appendices 2 and 3). Upon application by the student, the examination board may approve module combinations that deviate from the above, including ones that involve the replacement of compulsory modules.

(4) Students enrolled in the master program in ICT Innovation are to spend one year at a selected partner university (Entry) and a further year at another partner university (Exit) abroad.

(5) In the first year, the curriculum consists of compulsory modules in the “Common Core” areas within the chosen major subject as well as modules in the minor subject. Modules amounting to 6 credits in total may be freely selected. The number of credits in the compulsory area depends on the chosen major subject. In addition, students must cover supplemental compulsory elective modules (Electives) in the chosen major subject and in the minor subject.

(6) During the transition phase from the first to the second year, students are obligated to participate in a summer school that is organized by EIT Digital.

(7) One requirement for the continuation of the second-year studies abroad is that students must have completed at least 80% of the coursework of the first year successfully, that is, they must have earned 48 credits. Students who fail to meet this requirement may continue and complete their studies locally at Technische Universität Berlin. However, in such cases, students are no longer entitled to change to one of the EIT Digital partner universities and to earn the double degree as well as the EIT Digital certificate. Instead, after the successful completion of their studies, they are awarded the Master of Science (M.Sc.) by Technische Universität Berlin.

(8) In the second year, the curriculum consists of the “specialization” area that contains compulsory modules and compulsory elective modules, according to the chosen technical major. Modules amounting to 6 credits in total may be freely selected. Furthermore, in the second year, students must prepare a final thesis in the minor subject (at Technische Universität Berlin as the module “I&E Study”) as well as the master thesis.

III. Requirements and Conduct of Examinations

Section 6 – Purpose of the Master Examination

The master examination serves the purpose of assessing whether a candidate has reached the qualification objectives according to Section 3 of these Regulations.

Section 7 – Master Degree

(1) On the successful passing of the master examination, Technische Universität Berlin will award the academic degree “Master of Science” (M.Sc.) through Faculty IV – Electrical Engineering and Computer Science.

(2) If the student has fulfilled the relevant local requirements, he/she will be awarded a further degree by the respective partner university (double degree) as well as a certificate by EIT Digital in addition to the master degree awarded by Technische Universität Berlin.

Section 8 – Scope of the Master Examination, Determination of the Overall Grade

(1) The program in ICT Innovation is based on the provision that all coursework and examination results are mutually recognized by Technische Universität Berlin and the aforementioned partner universities. The master thesis shall be supervised at the university where the student completes the second academic year.

(2) The master examination consists of the module examinations specified in the List of Modules (Appendix 3) and the master thesis according to Section 9.

(3) According to the principles stipulated in Section 47 of the Regulations Governing General Study and Examination Procedures (AllgStuPO), the overall grade is to be determined from those module examinations taken from the list of modules that are marked as graded and for inclusion in the overall grade. As a rule, modules amounting to 18 credits are not included in the calculation of the overall grade. For this purpose, the modules with the lowest grade are individually selected. Modules that were completed during the entry year at another university and were either not graded or recognized as ungraded by the other university shall take priority in being included in these credits.

Section 9 – Master Thesis

(1) As a rule, the master thesis shall be produced in the fourth full study semester. It amounts to 30 credits and is to be produced within 26 weeks. If an important reason exists, the chairperson of the examination board may extend the deadline by up to five weeks or, in case of illness, up to thirteen weeks. The examination board shall decide on further exceptions.

(2) The topic of the master thesis may be rejected by the student on one occasion, however, only within the first six weeks of being issued by the relevant department of the Central University Administration.

(3) The second supervisor for the master thesis may come from the partner university where the student spent the first academic year.

(4) The master thesis must be written in the English language.

(5) The procedures of application for admission to a final thesis and the latter's assessment are regulated by the Regulations Governing General Study and Examination Procedures (AllgStuPO), as amended from time to time.

Section 10 – Types of Examination and Enrollment for

Examinations

(1) The types of examination and the procedure of enrollment for module examinations are regulated by the Regulations Governing General Study and Examination Procedures (AllgStuPO), as amended from time to time.

(2) For compulsory elective modules studied at other faculties or universities, the types of examination specified in the module descriptions shall apply.

IV. Appendices

Appendix 1: EIT Digital Partner Universities of Technische Universität Berlin

Appendix 2: Sample Course Schedules

Appendix 3: List of Modules

Entry and Admission Regulations for the Consecutive Double-Degree Master Program in ICT Innovation at Faculty IV – Electrical Engineering and Computer Science – of Technische Universität Berlin

of 20 January 2016

On 20 January 2016, the Faculty Council of Faculty IV – Electrical Engineering and Computer Science – of Technische Universität Berlin enacted the following Entry and Admission Regulations for the Master Program in ICT Innovation in accordance with Section 18 (1) no. 1 of the University Charter of Technische Universität Berlin and Section 71 (1) no. 1 of the Act on Higher Education Institutions in the State of Berlin (Berliner Hochschulgesetz, BerlHG), as amended on 26 July 2011 (Berlin Gazette of Laws and Ordinances [GVBl.], p. 378) in conjunction with Section 10 of the Act on the Admission to Higher Education Institutions in the State of Berlin in Courses of Study with Restrictions on Admission (Berliner Hochschulzulassungsgesetz – BerlHZG) in the version of 18 June 2005 (Berlin Gazette of Laws and Ordinances, p. 393), last amended by Article I of the Act on the Introduction of a Sports Profile Quota in the Allocation of Study Places of 26 June 2013 (Berlin Gazette of Laws and Ordinances, p. 198):**)

I. General Part

Section 1 – Scope of Application

Section 2 – Entry into Force / Expiry

II. Entry

Section 3 – Entry Requirements

III. Admission

Section 4 – Application and Admission Procedure

Section 5 – Decision on Admission

I. General Part

Section 1 – Scope of Application

In conjunction with the Statutes of Technische Universität Berlin on the Implementation of University-Internal Selection Procedures for Courses with Restricted Admission (AuswahlSa), as amended from time to time, these entry and admission regulations govern the procedures of entry, admission and selection for the master program in ICT Innovation.

Section 2 – Entry into Force / Expiry

These entry and admission regulations shall enter into force on the day after their publication in the Official Gazette of Technische Universität Berlin. They shall apply to all application procedures starting from the winter semester of 2016/2017.

II. Entry

Section 3 – Entry Requirements

Entry requirements, in addition to the general entry requirements according to Sections 10 to 13 of the Act on Higher Education Institutions in the State of Berlin (BerlHG), are

1. a first university degree that qualifies for a profession and that has been acquired in a course of study in the subject area of Computer Science, Computer Engineering, Media Informatics, Information Systems Management, Electrical Engineering or in a similar, related course of study;
2. furthermore, evidence of English skills at level B2 according to the Common European Framework of Reference for Languages (CEFR) is required for admission. The responsible examination board shall decide on the recognition of the English skills, which must have been acquired from a verifiable source. Information on the required evidence of sufficient language skills is provided by the examination board.
3. A further requirement for admission to studies at Technische Universität Berlin is a letter of acceptance from the selection committee of the EIT Digital Master School, which also specifies the major subject to be studied at Technische Universität Berlin.

III. Admission

Section 4 – Application and Admission Procedure

The EIT Digital Master School at the KTH Royal Institute of Technology in Stockholm is responsible for the admission of students. Applications must be made in digital form including all required proofs, as determined by the EIT Digital Master School, via the website of the EIT Digital Master School using the available online tool and in compliance with the application deadline that changes annually. In their applications, candidates must state their preferred technical major, as well as the name of the EIT Digital partner university at which they wish to enroll. They are not entitled to have their wishes fulfilled.

Section 5 – Decision on Admission

- (1) Upon completion of the selection procedure, the responsible body at the EIT Digital Master School decides on which candidates to select based on the outcome of the selection procedure and the ranking list resulting therefrom.
- (2) The selected candidates shall immediately be sent a letter of acceptance from the EIT Digital Master School containing a deadline for them to accept in writing the study place. Upon acceptance, candidates receive the local letter of acceptance from Technische Universität Berlin.
- (3) Candidates who have not been admitted shall receive a letter of rejection from the EIT Digital Master School.

**) ratified by the Senate Administration for Education, Youth and Science on 24 June 2016