Faculty of Electrical Engineering



HOCHSCHULE FÜR TECHNIK UND WIRTSCHAFT DRESDEN UNIVERSITY OF APPLIED SCIENCES

Study Regulation for the **Bachelor's Degree Programme**

Electrical Engineering

at the Hochschule für Technik und Wirtschaft Dresden University of Applied Sciences

Dated

11 July 2017

Pursuant to § 34 Para. 1 of the Law on Institutions of Higher Education in the Free State of Saxony (Sächsisches Hochschulfreiheitsgesetz (law on autonomy in the institutions of higher education) - SächsHSFG) in the version of the notice dated 15th January 2013 (SächsGVBI. (Saxon Gazette of Laws and Ordinances) Pg. 3), last amended by Article 11 of the law of 29th April 2015 (SächsGVBI. Pgs. 349, 354), the Dresden University of Applied Sciences, hereinafter referred to as the HTW Dresden, has adopted this examination regulation as a statute.

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Appendix: Study schedule

§ 1

Scope

Based on the examination regulation, this study regulation governs the content and structure of the Bachelor's degree programme in Electrical Engineering of the Faculty of Electrical Engineering at the HTW Dresden.

§ 2

Objective of the programme

(1) The Bachelor's degree programme in Electrical Engineering is a practice-oriented engineering degree programme. The aim of the study course is to obtain a professionally qualifying degree that qualifies graduates for the independent application and development of scientific knowledge and methods for the planning and project planning, designing, calculation, development and building, preparation, execution, monitoring and diagnosis of systems and installations in the fields of electrical engineering and information technology, taking economic and ecological aspects into account.

In addition to providing technical, methodological and social skills, the degree programme equips students to successfully cope with future professional challenges. Relevant skills are taught both in specialist training and in additional compulsory and/or elective modules.

- (2) Provided that further admission requirements are met, the successful completion of studies qualifies students to study in the Master's degree programme in Electrical Engineering at the HTW Dresden and in the Master's degree programmes at universities in Germany and abroad in accordance with the respective admission requirements.
- (3) The degree programme is the basis for subsequently getting a job, which requires extensive basic training with an exemplary advance training, because of its diverse possibilities. The programme meets this goal with its modular structure and a high degree of flexibility. Through the programme, which imparts both the requisite specialist knowledge and specific methodological and inter-cultural competence, students acquire the ability to think and work independently.

§ 3

Admission requirements

- (1) General admission requirements for studying in the Bachelor's degree programme in Electrical Engineering are the general or subject-related higher education entrance qualification, advanced technical college entrance qualification, degrees in accordance with § 17 Para. 3 of the SächsHSFG, entitlement to study according to § 17 Para. 5 or 7 of the SächsHSFG, or a university entrance qualification recognised by HTW Dresden as equivalent in accordance with § 17 Para. 4 of the SächsHSFG.
- (2) English proficiency, at least at level B2 of the Common European Framework of Reference, must be substantiated by appropriate tests, such as TOEFL (min. 500 points, 170 points [computer-based], 80 points [Internet-based]), IELTS (min. 5.0) or Cambridge Examinations (First Certificate English, min. B). Citizens of countries where English is the official language are exempt from proving their English proficiency. German proficiency must be proven in accordance with the requirements of § 5 Para. 3a of the Enrolment Regulation of HTW Dresden.
- (3) Proof of subject-related higher education entrance qualification entitles students to study at all universities in the relevant subject.

§ 4

Structure of the study programme

- (1) The Bachelor's degree programme in Electrical Engineering at the HTW Dresden is a direct study programme. It starts in the winter semester and is completed part-time from the first to the fourth semester and full-time from the fifth semester. The standard period of study for the programme is eight semesters. This study regulation, as well as the examination regulation, the study content and the courses, are designed in such a way that the programme can be successfully completed within the standard period of study.
- (2) The programme is a mixed German-English programme within the meaning of § 5 Para. 3a of the Enrolment Regulation of the HTW Dresden. The first four subject-specific semesters are completed part-time according to the study schedule (appendix) as a combination of in-class studies and self-study. The lectures in the first and second subjectspecific semesters are given entirely in English. The lectures in the third and fourth subject-specific semesters are given partially in English. Modules with English as the language of instruction are marked in the study schedule (appendix). The required German language skills are acquired in parallel and outside of the programme. The corresponding German language level in accordance with § 5 Para. 3a of the Enrolment Regulation of the HTW Dresden must be proven by furnishing a certificate at the latest by the end of the fourth semester. The fifth to eighth subject-specific semesters are completed fulltime at the HTW Dresden in the form of in-class studies and self-study in German. In addition, a Bachelor's thesis is completed in the eighth semester.
- (3) The study programme is modularised. Modules consist of independent learning units, each defined by learning objectives in terms of competencies, knowledge, skills and abilities. They consist of a combination of lectures and self-study units culminating in a module examination, which may consist of one or more examinations. If course achievements are a prerequisite for admission to module examinations (preliminary examinations), this is indicated in the examination plan (Appendix to the Examination Regulation).
- (4) Omitted
- (5) The credit system complies with the European Credit Transfer System (ECTS). Each module is assigned credits (credit points). Credits are a quantitative measure of the work load of students. One credit corresponds to a student work load of 30 hours. The number of credits depends on the average work load to be completed by students for each module. The work load includes attendance at lectures (in class) and all types of self-study, such as preparation and assessment time for lectures, examination preparation, completion of course achievements and examinations, including practical study periods. Each module usually corresponds to five ECTS credits. A total of 30 ECTS credits are awarded per semester in full-time study, which corresponds to a workload of 900 hours. In the part-time study, a total of 15 ECTS credits are awarded per semester, which corresponds to a workload of 450 hours. The number of semester hours per week per module is indicated in the study schedule (Appendix).

§ 5 Practical academic stage

- (1) The practical academic stage, which is completed at a company or any other institution of professional practice in the eighth semester, comprises a full-time employment period of at least 10 weeks. An internship record has to be compiled during the practical academic stage.
- (2) The current version of the Internship Regulation of the Faculty of Electrical Engineering determines the details.

(3) If, despite verifiable effort, no internship position can be found, the Examination Board can determine alternatives that are to be completed in the faculty and that suitably contribute to the qualification goals of the degree programme.

§ 6

Study schedule

- (1) The study schedule (appendix) is a recommendation to the students for the proper course of study in part-time mode for the first to fourth semesters and in full-time mode for the fifth to eighth semesters.
- (2) When studying abroad, the study programme which has been decided upon in agreement with the supervisor of the HTW Dresden and the partner university abroad in a Learning Agreement, and which may be laid down in a cooperation agreement, is considered as the study schedule.

§ 7

Study content/lecture forms

- (1) Modules of the Bachelor's degree programme in Electrical Engineering are explained in a module description that provides information on the following criteria:
 - Duration of and cycle of offering the module/module type,
 - Work load,
 - Subject areas and course types,
 - Credits,
 - Prerequisites for participation,
 - Learning objectives/competencies,
 - Content,
 - Preliminary examinations and examinations,
 - Learning aids,
 - Applicability of the module.

Module descriptions can be viewed on the HTW Dresden website.

- (2) The contents of the modules offered abroad are described by the partner universities abroad.
- (3) The Bachelor's degree programme in Electrical Engineering at the HTW Dresden differentiates between lecture forms:
 - Lectures
 - Exercises and seminars
 - Internships/laboratory internships.
- (4) Lectures help in concentrated knowledge transfer in a lecture form. Exercises contribute to the consolidation of the lecture material. They are performed as computational or practical exercises in the form of a seminar. Seminars lead to independent working on a scientific basis. They are also supposed to prepare students for completing the Bachelor's thesis and its defence. Laboratory internships are particularly important, as they make a decisive contribution to the acquisition of material knowledge and analytical skills. A part of the self-study is completed in the laboratory.
- (5) The course comprises compulsory and elective modules. Compulsory modules are those modules that are mandatory for all students. Students can select the elective modules from a catalogue of elective modules. The number of modules to be taken is indicated in the Appendix (study schedule), whereby the choice per semester is limited to

the number of elective modules mentioned in the study schedule minus the already passed elective modules. Additional modules can be taken optionally at the HTW Dresden or other universities. These include courses offered by the Studium Integrale. An additional elective module of a student's degree programme that he/she has passed can replace a selected elective module upon notification to the Examination Office at the end of the semester or at the latest by the date of defence.

- (6) At the request of the student and with the approval of the Examination Board, other modules offered at the HTW Dresden within and outside the Faculty of Electrical Engineering may also be taken as elective modules up to a maximum of five ECTS credits per semester.
- (7) The choice of elective module has to be explained to the person in-charge of the degree programme within the last two weeks of the lecture period for the following semester; the modalities (type of enrolment, dates, lower and upper capacity limit, etc.) are determined by the Dean. Participation in additional modules must be clarified with the responsible professor within the first two weeks of the lecture period. Participation in an elective and additional module is limited by the number of available capacities. Participants are selected upon receipt of the participation declaration. The faculty reserves the right to refrain from conducting individual elective or additional modules if the number of participants is too low. In the cases of sentences 4 and 5, the dean shall inform the students about the deadline for selecting other elective or additional modules.

§ 8

Tutorial

The Faculty of Electrical Engineering offers a tutorial for students, especially in the initial semesters. This tutorial provides orientation and is conducted by students of higher semesters.

§ 9

Study advisory service

- (1) Course-specific guidance in the Faculty of Electrical Engineering of the HTW Dresden is provided by the Dean of Studies and the person in charge of the degree programme. The student advisory service supports students in their studies by providing coursespecific and subject-specific counselling, particularly about study options and study techniques in the respective degree programme, as well as about the design, structure and completion of studies and examinations.
- (2) Making use of this service is optional, with the restriction that students who have not completed any of the examinations included in the examination plan (Appendix to the Examination Regulation) by the beginning of the third subject-specific semester are required to participate in study counselling in the third semester.

§ 10 Graduation

- (1) The required examinations and the manner in which they are taken are specified in the examination regulation for the Bachelor's degree programme in Electrical Engineering. They will also be explained and clarified by the teachers at the beginning of the module.
- (2) Graduation prerequisites are the successful completion of all compulsory modules and the elective modules, as specified by the study schedule, in in-class studies and selfstudy (168 ECTS credits), and completion of the Bachelor's thesis (12 ECTS credits). This means that the student obtains a total of 180 ECTS credits.

(3) The degree of

Bachelor of Engineering, B.Eng.

is awarded upon successful completion of the Bachelor's studies.

§ 11 Omitted

§ 12

Coming into effect

This study regulation applies to students who are going to take up studies in the Bachelor's degree programme in Electrical Engineering from the winter semester of 2017/18 at the HTW Dresden.

The study regulation was decided upon by the Faculty Board of the Faculty of Electrical Engineering on 10 July 2017 and approved by the Rectorate of the HTW Dresden on 11 July 2017. It takes effect on 12 July 2017 and will be published.

Issued based on the decision of the Faculty Board of the Faculty of Electrical Engineering on 10 July 2017 and the approval of the Rectorate of the HTW Dresden on 11 July 2017.

Dresden, 11 July 2017

Signed by Prof. Dr.-Ing. habil. Roland Stenzel Rector