Faculty of **Civil Engineering**



HOCHSCHULE FÜR TECHNIK UND WIRTSCHAFT DRESDEN

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

Environmental Engineering

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

Dated

10th May 2019

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 2 Para. 27 of the law of 5th April 2019 (SächsGVBI. Pg. 245), the Dresden University of Applied Sciences, hereinafter referred to as the HTW Dresden, has adopted this study 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 Master's degree programme in Environmental Engineering of the Faculty of Civil Engineering of the HTW Dresden.

§ 2

Objective of the programme

- (1) The Master's degree programme in Environmental Engineering aims at providing education that is equally characterised by academic excellence and practical application, and has an interdisciplinary and international character. The international character is due particularly to the fact that the language of instruction is English. Graduates should be made competent
 - to handle demanding professional activities in the field of environmental engineering with a focus on resource management,
 - to independently apply scientifically sound knowledge and methods,
 - to work scientifically and do developmental work in the disciplines offered in the field of environmental engineering,
 - to evaluate and design technological, structural and environmental protection processes,
 - to work in an interdisciplinary manner and to present complex technical and scientific facts comprehensibly,
 - to understand the engineering culture and research strategy applied in Germany and to use this knowledge to establish new bilateral teaching and research collaborations,
 - to enhance their inter-cultural character, informational capacity and ability to work in a team,
 - to work internationally.
- (2) The objective and benchmarks of the Master's degree programme in Environmental Engineering are further reflected in the division of the modularised curriculum into compulsory and elective modules.
- (3) The awarded Master's degree 'Master of Engineering' enables students to take up diverse professional paths. During the course, they acquire skills in environmental engineering, environmental science, environmental planning and environmental management. After successful accreditation, the course enables admission to the higher echelons of service in public administration, offers development opportunities in companies from all economic sectors and, at the same time, paves the way for further qualification in the form of a PhD in Germany and abroad.

§ 3

Admission requirements

(1) A general admission requirement for studies in the Master's degree programme in Environmental Engineering is a first professionally qualifying university degree in Engineering, Natural Sciences, Environmental Sciences or in a similar field with a minimum of 180 ECTS credits and proven English language proficiency. In the event of any uncertainties, eligibility must be acknowledged by the Examination Board of the Faculty of Civil Engineering.

- (2) The admission requirements for the Master's degree programme may be obtained at a university in Germany or abroad. The Examination Board of the Faculty of Civil Engineering monitors the fulfilment of the requirements.
- (3) Proficiency in English must be substantiated by appropriate tests, such as TOEFL (min. 550 points, 213 points [computer-based], 79 points [Internet-based]), IELTS (min. 6.5), Cambridge Certificate in Advanced English (min. B); Cambridge Certificate of Proficiency in English (min. B). Citizens of countries where English is the official language are exempt from proving their English proficiency. German language skills of level A2 are recommended.
- (4) For students from partner universities (university or faculty agreements), participation in individual semesters without a Master's degree in Engineering is possible.
- (5) There will be a selection procedure if the number of applicants exceeds the number of seats available. Study places are allocated in accordance with the selection regulation of the HTW Dresden depending on the overall grade of the first professionally qualifying university degree.

§ 4

Structure of the study programme

- (1) The Master's degree programme in Environmental Engineering at the HTW Dresden is a direct study programme. It starts every winter semester and can be completed as a full-time or part-time study programme. The standard period of study for a full-time study programme is three semesters. The standard period of study for a part-time study programme is specified by the regulation on part-time study programmes. The present study regulation, as well as the examination regulation, the study content and the courses are designed so that the studies can be successfully completed within the standard period of study.
- (2) The first three semesters are a combination of in-class studies and self-study. A master's thesis is written and defended in the fourth semester of studies.
- (3) Omitted
- (4) 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).
- (5) If the successful verification of previous module examinations is a prerequisite for admission to module examinations, this is indicated in the study schedule (Appendix).
- (6) 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 credits, equivalent to a work load of 900 hours, are awarded every semester. This can change in the case of a part-time study programme.

(7) The number of semester hours per week per module is indicated in the study schedule (Appendix 1).

§ 5 Omitted

§ 6 Study schedule

- (1) The study schedule (Appendix 1) is a recommendation to students for the proper course of study in a full-time study programme. In a part-time study programme, an individual study schedule is agreed between the student and the Dean of Studies.
- (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) The modules of the Master's degree programme in Environmental Engineering are explained in a module description stating 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) Omitted
- (3) There are different lecture forms in the Master's degree programme in Environmental Engineering at the HTW Dresden:
 - Lectures
 - Exercises and seminars
 - 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 writing the Master's thesis and its defence. The exercises and practicals in laboratories and computer centres, which contribute to the acquisition of material knowledge, as well as analytical and information technology skills, play an important role. 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 Civil Engineering may also be taken as elective modules up to a maximum of five ECTS credits per semester.
- (7) For the first semester, the choice of an elective module should be communicated within the first two weeks of the lecture period. For the second and third semesters, it should be communicated by the end of the lecture period for the next semester. The modalities (type of enrolment, dates, upper and lower capacity limits, etc.) are decided 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 3 and 4, the dean shall inform the students about the deadline for selecting other elective or additional modules.

§ 8

Omitted

§ 9

Study advisory service

- (1) Course-specific guidance in the Faculty of Civil Engineering of the HTW Dresden is provided by the Dean of Studies and the professors. The student advisory service supports students in their studies by providing course-specific 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 Master's degree programme in Environmental 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 and elective modules in in-class studies and self-study (90 ECTS credits) and completion of the Master's thesis (30 ECTS credits). This means that the student obtains a total of 120 ECTS credits.
- (3) The

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degree is awarded upon successful completion of the Master's degree programme.

§ 11 Omitted

§ 12

Coming into effect

This study regulation applies to students who are going to take up studies in the Master's degree programme in Environmental Engineering from the winter semester of 2019/20 at the HTW Dresden.

The study regulation was decided upon by the Faculty Board of the Faculty of Civil Engineering on 6th March 2019 and approved by the rectorate of the HTW Dresden on 9th May 2019. It takes effect on 13th May 2019 and will be published.

Issued based on the decision of the Faculty Board of the Faculty of Civil Engineering on 6th March 2019 and the approval of the rectorate of the HTW Dresden on 7th May 2019.

Dresden, 10th May 2019

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