

## **Study Regulations**

for the degree programme "Natural Hazards and Risks in Structural Engineering"  
(Master of Science)

In accordance with § 3, par. 1 in combination with § 34, par. 3 of the Thuringian Higher Education Act (ThürHG) effective 13 September 2016 (GVBl. p. 437), the Bauhaus-Universität Weimar has issued the following study regulations, based on the Rector's approval of the examination regulations for the postgraduate degree programme "Natural Hazards and Risks in Structural Engineering" with the conferral of a Master of Science (M.Sc.) degree. These study regulations were approved by the Faculty of Civil Engineering's Faculty Council on 16 November 2016 and went into effect on 14 December 2016 with the approval of the Rector of the Bauhaus-Universität Weimar.

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## **§ 1 - Scope**

The following study regulations specify the objectives, content and structure of the master's degree programme "Natural Hazards and Risks in Structural Engineering". On completion of the studies, the candidate receives a "Master of Science" (M.Sc.) degree in accordance with the corresponding Examination Regulations.

## **§ 2 - Admission requirements**

(1) The minimum qualification of admission to this programme is normally a Bachelor degree in Civil Engineering, or an equivalent university degree, a degree from a college of public administration, or a degree from a government or accredited professional school. The Examination Committee must ensure that the candidate's prior degree is equivalent to that of the Bachelor programme in Civil Engineering. If not, the Examination Committee may attach additional conditions for admission, which the candidate must meet.

**(2) The final grade for the first professionally qualifying degree should generally be 2.5 or better.**

(3) Candidates must provide proof of English language proficiency level B2 based on the Common European Framework of Reference for Languages by submitting either:

1 Proof of English proficiency as a native speaker (certificate of higher education entrance qualification or first-level professional qualification (i.e., undergraduate degree) from an English-speaking country), or

2 Proof of English proficiency level B 2, certified by one of the following internationally recognized certificates:

- TOEFL (Internet: 79, computer: 213, paper: 550)
  - Cambridge Certificate in Advanced English, Grade C
  - IELTS, vol. 6.0
- or other equivalent certificate.

## **§ 3 - Commencement of degree programme**

Candidates may only begin this master's degree programme in the winter semester.

## **§ 4 - Duration and credit requirements**

(1) The prescribed duration of study is four semesters. The master's degree programme requires that students complete course work totalling 120 ECTS credit points (CP).

(2) The programme can be accomplished part time according to the valid matriculation regulations of the Bauhaus-Universität Weimar, §11.

## **§ 5 - Object and goals of the degree programme**

(1) The master's degree programme in "Natural Hazards and Risks in Structural Engineering" is an intensive and application-based advanced course of study. The programme is highly supervised and research-oriented. It provides students a solid technical basis in the key areas of structural engineering through coherent and co-ordinated degree programme, integrating research and practical applications

(2) The degree programme enables students' excellence in oral and written skills. By providing students with advanced, scientifically-based, interdisciplinary knowledge, they are able to take on demanding engineering tasks in the areas of planning, construction and realization of structures under specific conditions. They are also able to carry out site- or structure-specific risk analysis using modern tools to estimate the threat of natural hazards. In addition to strengthening their theoretical and scientific competence, students are able to develop skills in modelling, simulation and application of performance-based design, field work and laboratory investigations.

In order to structure and reflect the complexity of the chain reactions inherent to natural hazards, this programme explores in detail various engineering disciplines and engineering-related areas of the natural sciences, social sciences and economics. It examines the central role that structural engineering plays in reducing the impact of natural disasters. Furthermore, it focuses on the engineering methods that are used to assess and reduce the vulnerability of structures.

The programme highlights the demands on engineering technology at both regional and global level by using international projects as models. The elective compulsory modules and the "Special project" expand on specific lines of development; they equip and prepare students systematically for future professional careers or further research positions.

(3) In addition, students should be prepared to meet their academic, social and environmental responsibilities in order to actively participate in shaping civil society

(4) Following the successful completion of the master's examination, the candidate is awarded a "Master of Science" degree.

## **§ 6 - Structure and content of the degree programme**

(1) Students should complete 30 credit points (CP) per semester. Students can only receive credit for passing the module examinations. One credit point corresponds to 30 hours of course work which includes course attendance and private study.

(2) The language of instruction is English.

(3) The master's degree programme is structured as follows:

See Attachment 1 (Course Schedule)

(4) The course work is module-based, i.e., interrelated seminars and lectures are bundled into modules of similar content or methods. The amount of credit awarded for modules is based on the total amount of work required to complete them. To receive credit for a module, the student must pass an examination at the end of the module which usually may be comprised of one assignments. A module is worth 6 CP of course work, or a multiple thereof. There are two basic structural forms of modules:

- 1 Basic (compulsory) modules, which all students are required to complete.
- 2 Elective compulsory modules, which students must choose from a course catalogue, published at the beginning of each semester.
- 3 Elective modules, which students must choose from the university master course catalogue; up to 6 CPs earned in attending German courses may count as electives credits;

(5) Students are required to complete the Master's Thesis in the fourth semester. The Master's Thesis is equivalent to a workload of 24 credit points (CP).

## **§ 7 - International studies**

(1) The international focus of the programme is also characterised by the fact that part of the course work may be completed abroad. Students are highly encouraged to study abroad in order to gather data for the "Special Project", which is an integrated part of the programme curriculum.

Studies completed abroad will be recognised in the curriculum in accordance with § 12 of the examination regulations.

(2) Students must organise the stay abroad themselves. Support, in particular with regard to the recognition of studies and the general organisation of studies, will be offered by the academic advisor.

(3) Prior to the stay abroad, students must ensure that their foreign studies are recognised and credited to the programme (learning agreement). Individual coordination between students and the programme director must be made with sufficient lead time before the start of the stay abroad. To the extent warranted by current circumstances, an immediate start to the stay abroad will be supported both academically and organisationally by the faculty.

## **§ 8- Accommodation for extenuating circumstances**

(1) Applicants with disabilities and/or chronic illnesses may apply for accommodation of their condition during the application process.

(2) The Bauhaus-Universität Weimar provides general advising with regard to studies. Support and advice for chronically ill and disadvantaged students, including questions regarding possible accommodation measures, is provided by both general advising and Thuringia Student Services. The working group "Studying with a Disability" at the Bauhaus-Universität Weimar provides specific counselling services to disabled and chronically ill students.

(3) In designing the programme of study, including instruction and learning formats, the university will accommodate the specific needs of students whose study options are limited due to special circumstances (e.g. disabled or chronically ill students).

(4) The request for accommodation will be adjudicated by the relevant examination committee at the request of the applicant and/or student, in consultation with the responsible admissions office. The applicant may propose a specific form of accommodation. The application must be submitted in writing; the decision will also be written, and in the event of rejection, will include a written justification.

## **§ 9 - Completion of the master's degree programme**

The master's degree programme concludes with the completion of the master's examination, comprised of the module examinations taken during the programme, the Master's Thesis and its presentation.

## **§ 10 - Academic advising**

(1) An orientation event is offered to new first-semester students.

(2) A faculty advisor is responsible for personally advising students on academic matters.

(3) Personal academic advising is provided by university professors and academic staff of the Faculty of Civil Engineering.

(4) At the end of the winter semester, a discussion forum including students, the programme director and the academic advisor is conducted to discuss the content and structure of the programme.

#### **§ 11 - Equal treatment clause**

Terms of status and function as applied in these regulations pertain to both sexes to an equal degree.

#### **§ 11 - Statement of effect**

(1) These study entered into effect on the first day of the month following their public announcement by the Bauhaus-Universität Weimar.

(2) First-semester students beginning in the winter semester 2017/18 are the first to which these regulations apply.

Approved by resolution of the Faculty Council on 16 November 2016.

Prof. Dr.-Ing. Hans Wilhelm Alfen,  
Dean of the Faculty of Civil Engineering

The statutes are approvable.

Dipl.-Jur. Rainer Junghanß  
Legal advisor

Approved  
Weimar, 14 Dezember 2016

Prof. Dr.-Ing. Karl Beucke  
Rector