

Information from the Bauhaus-Universität Weimar

*This English translation is for information purposes only.
The original German text is the legally binding version.*

ACADEMIC REGULATIONS

<input type="checkbox"/> The President <input type="checkbox"/> The Chancellor	Study Regulations for the consecutive degree <i>»Natural Hazards and Risks in Structural Engineering«</i> leading to a Master of Science	Issued on 24/2023
	Processing Dep./Unit Faculty B	Phone -4415

Pursuant to § 3, paragraph 1, in conjunction with section § 38, paragraph 3 of the Thuringian Higher Education Act (ThürHG) of 10 May 2018 (GVBl. p. 149) last amended by Article 1 of the Act dated 7 December 2022 (GVBl. p. 483), the Bauhaus-Universität Weimar issues the regulations based on the examination regulations designed by the university President following study for the *»Natural Hazards and Risks in Structural Engineering«* degree consecutive programme leading to a Master of Science (M.Sc.) qualification.

The Faculty Board of the Faculty of Civil Engineering agreed the study regulations on 11 October 2023.

The President approved the regulations on 22 November 2023.

Contents

- § 1 Scope
 - § 2 Admissions requirements
 - § 3 Start of studies
 - § 4 Duration and workload
 - § 5 Subject and objectives
 - § 6 Structure and content
 - § 7 Studying abroad
 - § 8 Compensation for disadvantages
 - § 9 Degree completion
 - § 10 Academic advising
 - § 11 Equal opportunity clause
 - § 12 Entry into force
- Appendix 1 Study and examination plan

§ 1 Scope

These study regulations detail the objectives, content and structure of the consecutive (English-language) degree in »*Natural Hazards and Risks in Structural Engineering*« leading to a Master of Science (M.Sc.) qualification in accordance with the associated examination regulations.

§ 2 Admissions requirements

(1) To be admitted to the Master's programme, students must have successfully completed a first university degree (Bachelor of Science) in civil engineering with good marks, or obtained a preliminary professional qualification recognised as equivalent by the responsible examination committee or a degree from a university of applied sciences for public administration or a state or state recognised vocational college.

(2) An overall mark of at least 2.5 is usually required for the first qualification; the examination committee shall decide on exceptions.

(3) If the first university degree is not based on a final academic project (thesis), the applicant must submit other academic work they have produced.

(4) Proof must be provided of proficiency in English to Level B2 of the Common European Framework of Reference for Languages (CEFR) in the form of

- a) mother tongue fluency (higher education entrance eligibility or first professional qualification obtained in an English-speaking country)

or

- b) one of the following internationally recognised certificates:

- TOEFL (internet-based score of 85 or higher)
- Cambridge First Certificate in English (FCE)
- IELTS, band 6.5 (at least 6.0 in each sub-area) or

equivalent

(5) The examination committee shall decide whether the admission requirements have been met in consultation with the academic advisor or, in the case of international applicants, in consultation with the Office of Student and Academic Affairs.

§ 3 Start of studies

The first semester may only be started at the beginning of the winter semester.

§ 4 Duration and workload

(1) The standard study period is four semesters. A total of 120 credits must be completed for the Master's degree programme.

(2) In accordance with § 10 of the latest version of the Bauhaus-Universität Weimar's enrolment regulations, the degree programme can be taken part time.

§ 5 Subject and objectives

(1) The English-language Master's degree programme in »*Natural Hazards and Risks in Structural Engineering*« aims to provide an intensively supervised, research-oriented and practical programme of advanced study. The specialist and methodological skills acquired during the first university degree or preliminary professional practice are furthered in a number of key areas of engineering.

(2) Students gain the in-depth science-based, interdisciplinary knowledge, skills and methods needed to complete demanding engineering tasks in the planning, construction and implementation of buildings under specific conditions and to use modern tools to determine the risks caused by natural events and conduct risk analyses for properties, building stock and specific sites. In addition to reinforcing their existing theoretical and scientific skills, students further their expertise in the modelling, simulation and application of behaviour-based design and documentation methods as well as field work and experimental investigations. The complexity of the causal chain of natural hazards on humans, civil society and their environment is structured and reflected through further study of various engineering disciplines along with the related subjects of natural science, social science and economics.

The central significance of civil engineering in mitigating the consequences of natural disasters as well as the methods available within the engineering disciplines to assess and modify the vulnerability of the built environment are explored in great depth. International projects are used to impart the skills required both for global and regional engineering projects. The elective compulsory modules and »Special Project« expand on subject-specific lines of development, which systematically prepare students for subsequent practical applications or further research activities.

(3) Students are moreover empowered to meet their scientific, social and environmental responsibilities, and to actively help to shape civil society.

(4) The degree of »Master of Science« is awarded upon successful completion of the Master's examination.

§ 6 Structure and content

(1) 30 credits are awarded each semester. Credits are only awarded for module examinations that are successfully passed. One credit corresponds to a workload of around 30 hours of attendance courses and self-study.

(2) English is the teaching and examination language.

(3) The degree programme is structured as follows: see Appendix 1 (course timetable and examination schedule)

(4) The teaching content is imparted in modules. These constitute a combination of time-limited, self-contained, methodological or content-oriented courses. Credits are allocated according to the study workload. Modules conclude with a module examination, which usually consists of an examination for which credits are awarded. A module generally has a study workload of six credits. There are three types of modules:

1. Basic modules

These must be completed by all students.

2. Elective compulsory modules

Students are free to choose these modules from the list of modules published at the start of each semester.

3. Elective modules

Students may choose these modules from the Master's programmes offered at the Bauhaus-Universität Weimar; it is also possible to select German language courses (max. 6 credits) as elective modules.

(5) Students complete their Master's thesis alongside their studies in the fourth semester. It is associated with a study workload of 24 credits.

§ 7 Studying abroad

(1) The degree programme's international orientation means that students may complete a portion of their academic work abroad. A stay abroad to participate in data collection for the »Special Project« integrated into this degree programme is explicitly recommended.

Credits are awarded for the academic work completed abroad as per § 13 of the examination regulations.

(2) Students must organise their stay abroad for themselves. A Learning Agreement must be concluded for recognition of the academic work completed at an international university. The academic advisor reviews the Learning Agreement after consulting with the director of studies and the first examiner of the module to be recognised. The student and academic advisor agree the type and scope of recognition as well as the academic work and examinations to complete. Upon their return, the student must submit their Learning Agreement together with the Transcript of Records (detailed list of the courses attended specifying the corresponding credits as well as the marks achieved) to the academic advisor without delay. If the academic work has been completed as agreed, the student's achievements are recognised and credits awarded accordingly. Marks are converted to the German marking system.

(3) The director of studies shall provide academic and organisational support for immediate attendance abroad should current events justify this.

§ 8 Compensation for disadvantages

(1) Students may apply for compensation for disadvantages. The disadvantage must be credible, hence a doctor's note may be required or, in justified individual cases, an official medical certificate.

(2) Support and advice for chronically ill and disadvantaged students, including all questions relating to a potential reconciliation of disadvantage, are provided by general advising as well as by shall Studierendenwerk Thüringen.

(3) When designing the study process, including the teaching and learning, forms, the specific requirements of students who are restricted in their opportunities for organising their studies (e.g. disabled or chronically sick students) due to special circumstances are taken into account. Students must not experience any disadvantages from utilising maternity, parental or care leave. The departmental academic advisor can advise on this.

(4) The responsible examination committee shall decide on the compensation for disadvantages based on the student's application. The student may propose a particular form of compensation. The application must be submitted in writing; students shall be informed of the decision in writing and, in the event of a rejection, reasons also given in writing.

§ 9 Degree completion

The Master's degree concludes with the Master's examination, which consists of the module examinations and the Master's thesis including its defence.

§ 10 Academic advising

(1) An introductory event takes place at the start of the first semester.

(2) The departmental academic advisor offers individual advising.

(3) Professors and academic employees from the Faculty of Civil and Environmental Engineering provide individual technical advice for students

(4) At the end of the winter semester, a discussion takes place between students, the director of studies and the departmental academic advisor on the content and structure of the degree programme.

§ 11 Equal opportunity clause

The statuses and functions described in these regulations apply equally to all genders.

§ 12 Entry into force

(1) These regulations shall enter into force on the first day of the month following their publication in the notices of the Bauhaus-Universität Weimar.

(2) These regulations shall first apply for the students beginning their studies in the winter semester 2024/25.

Faculty Board resolution dated 11 October 2023

Prof. Dr. rer. nat. Tom Lahmer
Dean

The regulations are subject to approval.

Dr. Steffi Heine
Head of Legal
Affairs

Approved:
Weimar, 22 November 2023

Prof. Peter
Benz, President

Appendix 1 Study and examination plan

Study Regulations - Appendix 1 (course timetable and examination schedule)		Semester 1	Semester 2	Semester 3	Semester 4
»Natural Hazards and Risks in Structural Engineering« Master		Credit points	Credit points	Credit points	Credit points
Modules	Credit points				
Applied mathematics and stochastics for risk assessment	6	6			
Geographical Information Systems (GIS) and building stock survey	6	6			
Primary hazards and risks	6	6			
Finite element methods and structural dynamics	6	6			
Structural engineering	6	3	3		
Elective module **	6	3	3		
Structural parameter survey and evaluation	6		6		
Earthquake engineering and structural design	6		6		
Geo- and hydrotechnical engineering	6		6		
Elective compulsory module *	6		6		
Disaster management and mitigation strategies	6			6	
Life-lines engineering	6			6	
Elective compulsory module *	6			6	
Special Project	12			12	
Elective module **	6				6
Master's thesis	24				2 4
Total	120	30	30	30	30

* See the NHRE module catalogue (updated every semester, subject to confirmation by the examination committee).

** Free choice of modules from the Master's programmes offered at the Bauhaus-Universität Weimar (graded German courses worth max. 6 credits may also be selected).