

Notices from Bauhaus-Universität Weimar

ACADEMIC REGULATIONS

Please note that this document is a translation and not legally binding.

Study regulations for the consecutive degree programme “Natural Hazards and Risks in Structural Engineering” with the degree Master of Science

Pursuant to Sections 3 Para. 1, 137 Para. 2 Sentence 2 of the Thuringian Higher Education Act (ThürHG) dated 10 May 2018 (GVBl. S. 149), most recently modified by Article 128 of the Act dated 18 December 2018 (GVBl. S. 731) in conjunction with Section 34 Para. 3 of the Thuringian Higher Education Act in the version published on 13 September 2016 (GVBl. S. 437), Bauhaus-Universität Weimar issues on the basis of the examination regulations approved by the president for the “*Natural Hazards and Risks in Structural Engineering*” degree programme with the degree Master of Science the following study regulations for the consecutive degree programme “*Natural Hazards and Risks in Structural Engineering*” with the degree Master of Science.

The council of the Faculty of Civil Engineering passed the regulations on 15/05/2019.

The president has approved the regulations with the decree dated 3 July 2019.

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Appendix 1 Study programme

Section 1 - Scope

These study regulations regulate the objectives, content and structure of the consecutive (English-language) degree programme "*Natural Hazards and Risks in Structural Engineering*" with the degree Master of Science (M. Sc.) based on the associated examination regulations.

Section 2 - Admission requirements

(1) The requirement for authorisation to undertake the Master's degree is an undergraduate degree (Bachelor of Science) with good examination results in the degree programme civil engineering or an initial professional degree that has been recognised as academically equivalent by the responsible examination committee, a degree from a civil service technical university or a state or state-recognised academy.

(2) The overall grade of the initial professional degree must usually be at least 2.5. Exceptions are decided by the examination committee.

(3) If the initial university degree is not based on an academic final project, the applicant must present other academic work that they have produced.

(4) It is a requirement for admission to study that the applicant provides evidence of English language skills at the B2 competence level of the Common European Framework of Reference for Languages (CEFR) through

a) evidence of mother tongue (acquisition of right to study or an initial degree enabling the applicant to work in the profession in an English-speaking country)

or

b) evidence using one of the following international certificates

- TOEFL (Internet-based Score 85 or better)

- Cambridge First Certificate in English (FCE)

- IELTS, Band 6.5 (minimum 6.0 in each paper) or

equivalent evidence.

(5) The determination of whether the access requirements are met is made by the examination committee in agreement with academic advising; for international applicants in consultation with the Office of Student and Academic Affairs.

Section 3 - Start of degree

The first semester of the degree can only start at the beginning of the winter semester.

Section 4 - Duration of study and study volume

(1) The normal study period is four semesters. The total scope of the student's work for the Master's degree is 120 credits.

(2) The degree programme can be studied part-time pursuant to Section 11 of the valid enrolment regulations of Bauhaus-Universität Weimar.

Section 5 - Subject and objectives of the course

(1) The English-language Master's degree "*Natural Hazards and Risks in Structural Engineering*" aims to provide an intensively supported, research-led and application-specific in-depth course in which the specialist and methodological competency gained in the undergraduate degree and possibly in professional work is expanded further in some basic engineering areas.

(2) By conveying in-depth academically based and interdisciplinary knowledge, skills and methods, the graduates should be enabled to complete demanding engineering work in the planning, construction and execution of buildings under specific implementation conditions and the use of modern aids to determine the risk from natural events and for property-, stock- and site-specific risk analysis.

In addition to conveying theoretical, academic skills, the skills relating to modelling, simulation and the application of behaviour-based drafting and documentation methods as well as the implementation of on-site meetings and experiments are also developed. By deepening different aspects of engineering and related areas in natural, social and business sciences, the complexity of the chain of effects from natural risks on people, civil society and the environment is structured and mirrored.

The central importance of civil engineering with regard to the reduction of consequences from natural disasters and the processes available in engineering disciplines to assess and modify the ability to damage the constructed environment are examined. Using experience gained from international projects, knowledge is conveyed on the perception of technical engineering requirements at the global and regional activity levels. Via the optional module and the "special project", specific technical development lines are offered in the degree programme to allow the systematic preparation of later practical or other research activity.

(3) The students should also be able to accept their academic, social and ecological responsibilities and actively be involved in the shaping of civil society.

(4) The "Master of Science" title is awarded after successfully completing the Master examinations.

Section 6 - Degree structure and content

(1) 30 credits are awarded each semester. Credits are only awarded for module examinations passed. A credit represents around 30 hours of work by the student in lectures and self-study.

(2) The teaching and exam language is English.

(3) The degree is structured as follows: See Appendix 1 (study programme)

(4) The teaching content is conveyed in modules. Modules refer to time-limited, separate, methodologically or content-aligned teaching events. Modules are given credits in line with the work involved. They end with a module examination that is usually an examination performance and on the basis of which credits are assigned. A module usually covers the work for six credits. There are three basic structural forms of modules:

1. Basic modules:

All students must complete these;

2. Elective compulsory modules:

Students have the free choice from a list that is published at the start of each semester;

3. Elective modules:

The students have the free choice from the Master's range at Bauhaus-Universität Weimar, German courses for up to 6 credits can also be completed as electives;

(5) The Master's thesis must be completed alongside the studies in the fourth semester. It is associated with the work of 24 credits.

Section 7 - International studies

(1) The international alignment of the degree programme is also characterized by the ability to complete some of the study performances in another country. An international stay to work on data collection as part of the "special project" integrated into the study programme is explicitly recommended.

The offsetting of study performances completed in another country against the curriculum is undertaken in line with Section 13 of the examination regulations.

(2) An international trip is organised by the student themselves. A "Learning Agreement" is to be produced to recognise the study performances undertaken at an international university. The "Learning Agreement" is checked after discussion with the degree programme lead and the initial examiner for the module to be recognised by academic advising. In a personal agreement with the student, academic advising agrees the type and scope of the recognition for the study performances and examinations to be provided. After returning, academic advising must be provided promptly with the learning agreement and the transcript of records (detailed list of the events attended and the relevant credits as well as the examination performances provided and the grades). If the agreed performances were completed, the studies will be recognised and offset against the degree programme. Grades are converted to the German grade system.

(3) If required by current events, immediate attendance in another country is supported in academic and organisational terms by the degree programme leadership.

Section 8 - Reconciling disadvantage

(1) Students can apply for reconciling disadvantage during the course. The disadvantage must be credible. Therefore a medical certificate or in justified individual cases the presentation of an official medical certificate can be requested.

(2) The information and advice for chronically sick and disadvantaged students on questions relating to reconciling disadvantage is provided by the general advising.

(3) When designing the degree, the specific requirements of chronically sick and disadvantaged students are taken into account. The student must not experience any disadvantages from utilising maternity, parental or care leave. Academic advising will provide advice on this.

(4) Via the disadvantage reconciliation the responsible examination committee will take a decision at the student's request. The student can propose a particular form of reconciliation. The request is to be made in writing, the decision notified in writing and any refusal is to be justified in writing.

Section 9 - Completion of the Master's degree

The Master's degree is completed with the Master's examination which is comprised of the module examinations that accompany the course including and Master's thesis including its defence.

Section 10 - Academic advising

- (1) An introductory event takes place at the start of the first semester.
- (2) Academic advising conducts individual student advice.
- (3) Lecturers and academic employees of the Faculty of Civil Engineering conduct individual academic advice for students.
- (4) At the end of the winter semester a discussion is held with the student, degree programme leadership and academic advising about the content and structure of the degree programme.

Section 11 - Equal opportunity clause

Status and function titles in these regulations apply equally to all genders.

Section 12 - Entry into force

- (1) These regulations come into force on the first date of the month following their notification by Bauhaus-Universität Weimar.
- (2) These regulations apply first to students who start their degree programme in the 2019/20 winter semester.

Faculty council resolution dated 15/05/2019

Prof. Dr.-Ing. Uwe Plank-Wiedenbeck
Dean

The rules must be approved

Dipl.-Jur. Rainer Junghanß
Lawyer

approved:
Weimar, 3 July 2019

Prof. Dr. Winfried Speitkamp
President

Study regulations - Appendix 1 (study programme) Master's "Natural Hazards and Risks in Structural Engineering"		1st semester	2nd semester	3rd semester	4th semester
Modules	LP	LP	LP	LP	LP
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				24
Total	120	30	30	30	30

* See module list NHRE (can be updated each semester, to be confirmed by the examination committee)

** free choice from the Master's range at Bauhaus-Universität Weimar (graded German courses possible up to a max. of 6 credits)