
CIVIL ENGINEERING

**NATURAL
HAZARDS AND
RISKS IN
STRUCTURAL
ENGINEERING**
M.Sc.

MASTER'S DEGREE PROGRAMME NATURAL HAZARDS AND RISKS IN STRUCTURAL ENGINEERING

The Natural Hazards and Risks in Structural Engineering (NHRE) master's degree programme has a strong international orientation. It trains students to apply themselves to demanding engineering tasks with regard to specific external influences, such as earthquakes. We teach students how to use modern equipment to assess the dangers and damage potential of natural phenomena, we show them how to create models and simulations, and we prepare them for conducting projects and risk analyses of their own.

In this way, the programme provides students with key qualifications for engineering positions which require innovative, enterprising solutions for dealing with a wide variety of natural dangers, like earthquakes, floods and storms.

For more information, please visit:

www.uni-weimar.de/bauing.

»Natural hazards are an integral component of our globalised world – a world influenced to an increasing degree by climatic changes. Based on recent events and field research from around the world, we teach our students scientific-technical fundamentals, create impact simulations and structural models, and demonstrate how scenarios can be played out using modern Instrumental tools and advanced geotechnologies. In closely supervised projects, we prepare you scientifically and practically to meet engineering demands at a global and regional level and offer you multifaceted and exciting professional opportunities.« *Dr.-Ing. Jochen Schwarz*

Head of the degree programme

WHAT DOES THE PROGRAMME OFFER?

The standard period of study for the English-language master's degree programme NHRE is four semesters. It builds on the expertise and methodical competence acquired in an undergraduate degree programme in a basic field of engineering. We help to improve your theoretical-scientific skills and provide you qualification in key areas, such as modelling, numerical simulation, stochastics, foundation engineering, risk assessment and disaster management. Students gain deeper insight into the complex causal chain of natural hazards by studying various areas of engineering, as well as engineering-related fields of the natural sciences, social sciences and economics in greater detail. The compulsory elective modules offer lines of development which systematically prepare students for practice- and research-related tasks at a later time.

This degree programme offers you a high degree of academic supervision and focuses on research-oriented and practical subject matter. We provide you with planning, constructive and analytical skills necessary to meet the engineering demands at both the global and regional levels.

We strongly emphasise the practical relevance of what is taught in the classroom and offer explanatory training and application sessions, internships and complementary projects. The programme also includes excursions and seminars, coordinated in part by leading research institutes. We recommend that our students participate in field studies and relevant projects abroad, preferably during the semester break. During the fourth semester, you are required to demonstrate your ability to work in a scientific manner by writing a master's thesis under professorial supervision. After successfully completing and presenting your master's thesis, you will be awarded a »Master of Science« (M.Sc.) degree from the Faculty of Civil Engineering.



HOW DO I APPLY?



If you have received your bachelor's degree and wish to gain in-depth knowledge in this field of Civil Engineering, we strongly encourage you to apply for admission to our master's degree programme. To be eligible for admission, you must have attained a B.Sc. degree in Civil Engineering or a comparable subject with a final grade of 2.5 or better. The examination committee is responsible for deciding on exceptions and the equivalence of degrees.

You are also required to demonstrate English language proficiency at the C1 GER level, either by submitting:

- a) Proof of language mastery as a native speaker of English
- b) Proof of English language proficiency at the C1 level, confirmed by an internationally recognised certificate (TOEFL, Cambridge Certificate in Advanced English, IELTS) or equivalent certificate.

Students may only begin the NHRE master's degree programme in the winter semester. For current information on application and enrolment deadlines and the possibility of applying online, please visit: **www.uni-weimar.de/application**. If you have any other questions, please contact our faculty advisors at: **nhre@bauing.uni-weimar.de**.

WEIMAR FOR STUDENTS

In Weimar, there is a long tradition of venturing in new directions. In awareness of the historic accomplishments – Classicism, Bauhaus, German democracy – student life in Weimar is also anchored in its own contemporary microcosm. The cultural spectrum of the city is comprised of numerous small organisations, e.g. the student union in M18, the university gallery 'marke.6', the student-initiated soap box derby SpaceKidHeadCup. Visit also our seismic station in the Park Cave as integrated part of the project »bauhaus under ground«; the recordings from the world wide earthquake activity are in-time visualized over the monitor of the Earthquake Information Terminal.

Four cinemas, several small theatre venues, over 20 museums and diverse student clubs and concert events further enhance Weimar's reputation as a European capital of culture and contribute to an exciting and eventful student life.

When you come to Weimar, you immediately notice its familiar, small-town feeling. For more information about the opportunities awaiting you in Weimar, please visit:

www.uni-weimar.de/weimar-for-students.

AND AFTER MY STUDIES?

Graduates of the NHRE master's degree programme find employment in engineering offices, agencies, project coordinators and companies. As trained engineers, they not only possess general, practical engineering skills, but are also able to conduct field operations, laboratory tests and solve complex engineering problems in their home country, in Germany and abroad.

Our graduates are predestined to manage interdisciplinary projects in especially threatened regions of the world and provide on-site support to local agencies and organisations.

Students who attain an above-average final grade in this master's degree programme are eligible to pursue a doctorate or gain admission to a Ph. D. programme.

General Academic Advising

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