

Joint Examination Regulations
for the "multiple degree" of the Master's degree program
"Mechanics of Sustainable Materials and Structures"
of the Department of Architecture and Civil Engineering
(TU Dortmund University, Germany)
and
the Department of Civil, Environmental and Mechanical Engineering
(Università di Trento, Italy)
and
the Department of Mechanics, Materials and Civil Engineering
(Ecole Centrale de Nantes, France)
from 8 December 2023

On the basis of Section 2 (4) in conjunction with Section 64 (1) of the Higher Education Act of the State of North Rhine-Westphalia (*Hochschulgesetz NRW*, HG) of 16 September 2014 (GV.NRW. p.547), last amended by the Act of 30 June 2022 (GV.NRW. p.780b) and on the basis of the cooperation agreement between the Università di Trento, the Ecole Centrale de Nantes and TU Dortmund University dated 31 August 2023, TU Dortmund University, the Università di Trento and the Ecole Centrale de Nantes have issued the following regulations:

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I. General information

Section 1

Scope of the Master's Examination Regulations

- (1) These Master's Examination Regulations apply to the Master's degree program in the multiple degree program "Mechanics of Sustainable Materials and Structures" at the Department of Architecture and Civil Engineering of TU Dortmund University, the Department of Civil, Environmental and Mechanical Engineering of the Università di Trento, ITALY and the Département d'Enseignement Mécanique, Matériaux et Génie Civil of the Ecole Centrale de Nantes, FRANCE. It regulates the structures of the Master's degree program in accordance with Section 64 of the Higher Education Act of the State of North Rhine-Westphalia (*Hochschulgesetz NRW*, HG).
- (2) The module descriptions in the module handbook describe the individual study elements, the course content and the skills to be acquired. They are not part of these Examination Regulations. They are decided by the Department Council of the Department of Architecture and Civil Engineering of TU Dortmund University and the responsible committees of the partner universities in Trento and Nantes and must be reported in particular to the Rectorate of TU Dortmund University.

Section 2

Aims of the degree program

- (1) The Master's degree program in Mechanics of Sustainable Materials and Structures is research-oriented. Successful completion of the Master's degree program leads to the degrees listed in Section 4. The Master's degree program also prepares students for a doctorate in the field of advanced materials and structures in civil engineering.
- (2) With successful completion of the degree program, candidates demonstrate that they have acquired advanced specialist knowledge, skills and methods that are required for scientific work and science-oriented professional activity and enable them to critically classify new scientific findings and apply them in professional practice. This knowledge and these skills are taught on the basis of an in-depth study of scientific issues in materials mechanics and structural mechanics. The methodological focus is on modern methods of advanced solid mechanics, data analysis and numerical calculation.
- (3) Graduates have further developed their analytical thinking and critical judgment. They have also deepened their skills in the field of advanced mechanics for sustainable materials and structures in civil engineering and acquired a broad knowledge of the associated methodological topics. They are able to apply this knowledge to both concrete and abstract problems and also transfer it to other areas. In addition, they have the ability to clearly communicate facts and research results. The international character of the degree program and the high degree of mobility particularly promote the intercultural dimension of personal development. Graduates are able to play a critical and reflective role in shaping social processes with a sense of responsibility and a democratic sense of community. This civically, politically and culturally oriented personal development is promoted throughout the Master's degree program by placing a strong emphasis on the sustainability of the design of the materials and structures that students learn to deal with.

Section 3

Access requirements

- (1) Access to the joint Master's degree program "Mechanics of Sustainable Materials and Structures" is open to anyone who meets the following access requirements.
- (2) The prerequisite for access to the Master's degree program "Mechanics of Sustainable Materials and Structures" is:
 - a) a Bachelor's degree in the field of civil engineering in accordance with the European Qualifications Framework.
 - b) another comparable degree in a comparable course of study lasting at least three years (six semesters) at a state or state-recognized higher education institution within the scope of the Basic Law or at a higher education institution outside the scope of the Basic Law, provided that the access committee has determined that there are no significant differences to the degree and course of study mentioned in subsection 1 lit. a).
- (3) The Multilateral Board (Section 15) is responsible for the examination of the access requirements. The benchmark for determining whether or not there are significant differences within the meaning of subsection 1 lit. b) is a comparison of the content, scope and requirements of the degree obtained and the degree program with the degree

and the degree program in accordance with subsection 1 lit. a). Due to the different subject orientations of degrees, the Multilateral Committee reserves the right to invite students with a degree according to subsection 1 lit. b) to an interview to determine the necessary equivalence to a Bachelor's degree in the field of civil engineering according to subsection 1 lit. a). The interview may take place in person or fully or partially in digital form. In terms of content, the interview is intended to determine whether the knowledge and skills acquired through the degree in accordance with subsection 1 lit. b) correspond to the knowledge and skills acquired in the context of a Bachelor's degree in the field of civil engineering at the partner universities and thus provide sufficient preparation and basis for successful study of the Master's degree program in Construction Mechanics. To this end, applicants may be asked tasks and questions from the fields of higher mathematics, engineering mechanics and linear beam structures.

- (4) If the academic degree was acquired abroad, the equivalence agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (*Kultusministerkonferenz*) and the German Rectors' Conference (*Hochschulrektorenkonferenz*), agreements within the framework of university partnerships and the recommendations of the Central Office for Foreign Education (*Zentralstelle für ausländisches Bildungswesen, ZAB*) must be taken into account when examining the materiality of differences. For the Università di Trento, the Ordinamento didattico e Regolamento didattico del Corso di Laurea Magistrale in Ingegneria Civile - LM 23 - must be observed; for admission to the Ecole Centrale de Nantes, the "Study Regulations for Master's Degree Programs at the Ecole Centrale de Nantes: Academic Regulations" must be observed.
- (5) An overall grade of at least 2.8 (satisfactory) according to the German grading scale was achieved in the required degree in accordance with subsection 1. In the case of a foreign degree, the overall grade must be 2.8 (satisfactory) after conversion into the German grading system and taking into account the recommendations of the Central Office for Foreign Education (*Zentralstelle für ausländisches Bildungswesen, ZAB*). In the ECTS grading scheme, this corresponds to a grade B or better, which is typically awarded to the top 35% of students in a year.
- (6) Students must have proven English language skills of at least level B2 of the Common European Framework of Reference for Languages (CEFR). These are also considered proven
 - by the certificate of the general or subject-restricted higher education entrance qualification (*Allgemeine oder fachgebundene Hochschulreife*) from the area of application of the Basic Law,
 - an internationally recognized language certificate (e.g., TOEFL, IELTS) or a comparable certificate) or
 - by attending an English-speaking school for at least one year or
 - for students whose native language is English or who have obtained a degree in accordance with subsection 1 in an English-language degree program.
- (7) If students do not yet hold the Bachelor's certificate, the Multilateral Committee may admit these students to the Master's degree program "Mechanics of Sustainable Materials and Structures" if proof is provided that all examinations of a Bachelor's degree program or a comparable degree program, including the Bachelor's thesis or other

thesis, have been successfully completed in accordance with subsection 1 and that the requirements set out in subsections 4 to 6 have also been met.

Section 4 Master's degree

The following degrees are awarded by TU Dortmund University through the Department of Architecture and Civil Engineering, GERMANY, the Department of Civil, Environmental and Mechanical Engineering of the Università di Trento, ITALY (UniTrento) and the Department of Mechanics, Materials and Civil Engineering of the Ecole Centrale de Nantes, FRANCE:

- "Master of Science" ("M. Sc.") in Germany,
- "Laurea Magistrale in Ingegneria Civile" (class LM 23) in Italy and
- "Master sciences, technologies, santé, mention génie civil / Civil engineering" in France.

Section 5 Credit point system

- (1) The degree program is structured on the basis of a credit point system that is compatible with the European Credit Transfer System (ECTS).
- (2) Each module is allocated a number of credit points according to the amount of work involved. One credit point within the meaning of these Examination Regulations corresponds to one ECTS point and is awarded for a performance/course which requires a workload of approximately 30 hours. As a rule, 30 credit points must be earned per semester.
- (3) Credit points are awarded on the basis of successfully and fully completed modules.

Section 6 Standard program duration, scope of studies and study structure

- (1) The standard period of study for the Master's degree course is four semesters (two years) and includes the completion of the Master's thesis. A total of 120 credit points must be earned in the Master's degree program by participating in the modules and taking the corresponding examinations as well as the Master's thesis.
- (2) The Master's degree program comprises a total of approx. 3,600 working hours, which correspond to 120 credit points and are divided into compulsory, compulsory elective and elective areas.
- (3) The Master's degree program is divided into modules, each of which extends over a maximum of two consecutive semesters. These modules are self-contained study units that are rounded off in terms of content and time and generally comprise at least 5 credit points.
- (4) The structure of the degree program and the modules, including the credit points to be earned and forms of examination (module examination or partial assessments), are shown in the appendix to these Examination Regulations.
- (5) The degree program can only be started in the winter semester.
- (6) This is an international Master's degree program in which the courses and examinations are held in English.

Section 7

Admission to courses with limited number of participants

- (1) The courses of the Master's degree program "Mechanics of Sustainable Materials and Structures" at TU Dortmund University may be limited in the number of participants for the reasons stated in Section 59 (2) sentence 1 HG NRW.
- (2) The Department Council of the Department of Architecture and Civil Engineering determines both whether there is a limit on the number of participants and then the maximum number of participants for the respective courses and shall announce this in an appropriate manner.
- (3) If the number of applicants exceeds the admission capacity, the Dean or a teaching staff member appointed by the Dean, with the involvement of the Department Committee for Teaching and Studies, decides on access at the request of the respective teaching staff member. Applicants are to be considered in the following order:
 1. Students who are required to attend the course at this point in time as part of their chosen degree program. On the one hand, students for whom the course is planned in this semester according to the module descriptions in the module handbook and the study plan for the Master's degree program "Mechanics of Sustainable Materials and Structures", and on the other hand, students who are in the last semester of their Master's degree program "Mechanics of Sustainable Materials and Structures" according to the standard program duration or in a later semester and need the course in order to complete their Master's degree program within the standard program duration or in a timely manner.
 2. Students who, according to their course of study, are not dependent on attending the course at this point in time within the framework of their chosen degree program or cross-registered students in accordance with Section 52 (2) HG NRW who, according to their course of study, are dependent on attending the course at this point in time within the framework of their chosen degree program.
 3. Students who are admitted to the respective course as cross-registered students in accordance with Section 52 (1) HG NRW.
 4. Other students of TU Dortmund University, provided they meet the requirements for participation in the course.
- (4) If a selection is necessary within a group, the applicants are to be considered in the following order:
 1. Students with a long-term or permanent disability, chronic illness or with care requirements (care and upbringing of children within the meaning of Section 25 (5) of the Federal Education and Trainings Assistance Act (*Bundesausbildungsförderungsgesetz*, BAföG), care of the spouse, the registered partner or a relative in the direct line or a first-degree relative by birth or marriage, insofar as the latter is in need of care).
 2. Students for whom it is mandatory to repeat a course in the according module.
 3. After the remaining criteria have been exhausted, the decision is made by lot.

- (5) The existence of the conditions related to the criteria according to subsection 4 no. 1 and no. 2 shall be asserted to the Dean by the applicants themselves during the application procedure and within the specified and published deadlines.
- (6) The Department of Architecture and Civil Engineering shall ensure, within the limits of the available resources, that the students referred to in subsection 3 no. 1 as a rule suffer no loss of time, or at most a loss of time of one semester, as a result of the limitation of the number of participants.
- (7) Different regulations may apply for admission to courses at the Università di Trento or the Ecole Centrale de Nantes.

Section 8

Structure and content of the degree program

- (1) The first semester is compulsory for all enrolled students at TU Dortmund University, GERMANY, the second semester at the Università di Trento, ITALY, and the third semester at the Ecole Centrale de Nantes, FRANCE.
- (2) The fourth semester can be completed at one of the participating universities of the student's choice, whereby as a rule a distribution of $\frac{1}{3}$ Master's students per partner university should be observed. The choice must be declared in writing by the end of the third semester at the latest on the form provided for this purpose. The Multilateral Committee examines the student's applications and ensures an equal distribution of students among the partner universities, whereby the principle of equal opportunities is upheld. After approval of the studies at the desired or an assigned university, a change of university is excluded.
- (3) The Master's thesis is written in the fourth semester at the chosen university or the assigned university respectively an associated partner institution. The provisions of Sections 19 and 20 apply accordingly.

Section 9

Examinations

- (1) As a rule, modules are completed with only one examination. In particularly justified cases, several modules can also be completed with one examination. The module is usually completed with a graded module examination. In exceptional cases, a module can also be successfully completed by cumulative graded partial assessments. Partial assessments are completed as part of individual courses. The respective forms of examination (module examination or partial assessments) can be found in the appendix to these Examination Regulations.
- (2) Module examinations or partial assessments are generally completed during the course of study in the form of written, oral or electronic examinations or examinations in electronic communication (written examinations, term papers, presentations, seminar contributions, portfolios, poster or project presentations, practical exercises, etc.). The examiners responsible for examinations at TU Dortmund University may determine other suitable forms of examination with the approval of the Examination Board.
- (3) The type, form and scope of the module examinations or partial assessments are specified in the module descriptions in the module handbook. The examination dates for examinations to be taken at TU Dortmund University will be announced in good time

at the beginning of the course by the respective examiners responsible. Upon application via the Examination Board, in justified cases, it is possible to deviate for a limited period of time from the form of delivery originally provided for in the module descriptions of the module handbook for examinations to be taken at TU Dortmund University.

- (4) Admission to the individual module examinations or partial assessments requires that the examinations specified as prerequisites in the module descriptions of the module handbook have been successfully completed.
- (5) For module examinations at TU Dortmund University, a minimum of one and a half hours and a maximum of four hours must be allowed for written examinations and a minimum of 20 minutes and a maximum of 45 minutes per student for oral examinations. For partial assessments, a minimum of one and a maximum of three hours must be set aside for written examinations and a duration of 15 to 30 minutes per student for oral examinations. At the examiner's discretion, oral examinations may be supplemented by a preparatory task lasting up to 30 minutes. In oral group examinations, a total duration of 60 minutes for module examinations and 45 minutes for partial assessments may not be exceeded. Different regulations may apply at the Università di Trento and the Ecole Centrale de Nantes.
- (6) Written examinations at TU Dortmund University are assessed by at least one examiner. Different regulations may apply at the Università di Trento and the Ecole Centrale de Nantes.
- (7) The written examinations to be taken at TU Dortmund University are conducted under supervision and are not open to the public. Any permitted aids will be announced by the examiner before the examination. As a rule, students must be informed of the assessment of written examinations after two months at the latest, whereby the requirements of data protection must be observed. Different regulations may apply for written examinations to be taken at the Università di Trento and the Ecole Centrale de Nantes.
- (8) Written examinations can be carried out in whole or in part using the answer-choice method. In particular when using this procedure for the examinations to be taken at TU Dortmund University, care must be taken to ensure that the examination questions are based on the content and required knowledge taught in the modules or the corresponding courses and allow reliable examination results. In the case of examinations that are to be assessed by two examiners, the examination questions shall be drawn up jointly by both examiners. When devising the examination questions, it must be determined which answers are recognized as correct. Different regulations may apply at the Università di Trento and the Ecole Centrale de Nantes.
- (9) Examinations taken at TU Dortmund University in written or oral examinations which conclude a degree program and in repeated examinations for which there is no possibility of compensation in the event of final/definite failure must always be assessed by at least two examiners within the meaning of Section 16 (Section 65 (2) HG NRW). Different regulations may apply at the Università di Trento and the Ecole Centrale de Nantes.
- (10) Oral examinations at TU Dortmund University must always be conducted by several examiners in the presence of an expert observer as an individual examination or as a

group examination. If the oral examination is taken in front of several examiners, each examiner shall determine an individual grade for the oral examination performance in accordance with Section 21 (1). The grades for the oral examination are calculated from the arithmetic mean of the two individual grades in accordance with Section 21 (9). If an oral examination is taken in front of an examiner and an expert observer, the examiner must hear the assessor before determining the grade in accordance with Section 21 (1). If only one examiner assesses the oral examination as passed, i.e. with at least sufficient (4.0), the examination is repeated in front of two other examiners, who are determined by the Examination Board, without counting this as a failed attempt. The examination is passed if both of the newly appointed examiners assess the examination performance as at least sufficient (4.0). Different regulations may apply for oral examinations to be taken at the Università di Trento and the Ecole Centrale de Nantes.

- (11) The main subjects and results of the oral examination to be conducted at TU Dortmund University are to be recorded in a protocol. The result of the examination must be announced to the candidate directly after the oral examination. Students who wish to take the same examination at TU Dortmund University in a later examination period can be admitted as listeners, subject to spatial/room conditions, unless the candidate objects. This admission does not extend to the consultation or the announcement of the examination result. In the event of the examination being influenced or disrupted by members of the audience, these persons may be excluded from the audience by the examiner. Different regulations may apply for examination procedures to be carried out at the Università di Trento and the Ecole Centrale de Nantes.
- (12) In modules that conclude with a module examination, additional coursework may be required in the individual courses. These may include in particular: in-class reports, seminar papers, internships, practical exercises, written or oral performance assessments, presentations, minutes or portfolios. Coursework can be graded or assessed on a passed/failed basis. Section 21 (5) lit. b) does not apply. The prerequisite for participation in the module examination is the successful completion of all coursework required in this module.
- (13) The requirements for coursework to be completed at TU Dortmund University are significantly lower in form and content than the requirements for a module examination. If the form in which coursework is to be completed for a module is not defined in the module descriptions in the module handbook, it is announced by the lecturer/teacher at the beginning of the course.
- (14) Regular attendance may be required for courses at TU Dortmund University whose learning objective cannot be achieved without the active participation of students (e.g. excursions, language courses, internships, practical exercises, etc.). When regulating compulsory attendance, the constitutional requirement of proportionality must be observed. Decisions on compulsory attendance for courses at TU Dortmund University are made either on the basis of a vote by the Study Advisory Council (*Studienbeirat*) or on the basis of a two-thirds majority of the Department Council of the Department of Architecture and Civil Engineering at TU Dortmund University. Other, deviating regulations may apply to the compulsory attendance of courses at the Università di Trento or the Ecole Centrale de Nantes. Compulsory attendance must be indicated in the module descriptions in the module handbook. The exact structure of the attendance

requirement will be announced to students in a suitable form at the beginning of the course.

Section 10 Disadvantage compensation

- (1) If, within the scope of the study and examination phase to be completed at TU Dortmund University, students provide a medical certificate stating that they are unable to complete an examination in full or in part in the intended form, duration or deadline due to a prolonged or permanent disability or chronic illness, the Examination Board shall determine in which other form, duration or deadline the examination will be completed. This also applies to the acquisition of a participation requirement. Furthermore, deviations can be made with regard to the use of aids or assistants as well as the number and requirements for repeating examinations. In the case of persons with disabilities or chronic illnesses, it should extend to all examinations to be taken during the studies, unless a change in the illness or disability is to be expected. In case of doubt, the person or body responsible for issues relating to disabled students (e.g. the Division of Disability and Studies (DoBuS) within the Center for Higher Education (zhh) at TU Dortmund University) will be consulted.
- (2) Compensation for disadvantages is granted for the study phase and examination procedure to be completed at TU Dortmund University on a case-by-case basis upon application to the Examination Board and must be submitted to the Central Examinations Office of TU Dortmund University.
- (3) Different regulations may apply to examinations and examination procedures at the Università di Trento or the Ecole Centrale de Nantes.

Section 11 Maternity protection

The statutory maternity protection periods as well as the corresponding provisions of the Maternity Protection Act (*Mutterschutzgesetz*, MSchG) apply, cf. Section 64 (2) no.5 and (2a) North Rhine-Westphalia Higher Education Act (HG NRW). At the Università di Trento or the Ecole Centrale de Nantes, other regulations that deviate from this may apply.

Section 12 Deadlines and dates

- (1) For each examination that takes place at TU Dortmund University under the responsibility of the Department of Architecture and Civil Engineering, registration is required no later than two weeks before the start of the respective examination. The registration period must be at least two weeks. The registration for seminars, projects and homework assignments must take place at the latest within four weeks of the assignment being issued.
- (2) A deregistration without giving reasons is possible up to one week before the start of the respective examination in the case of oral examinations to be held at TU Dortmund University by the Department of Architecture and Civil Engineering, and up to one day before the start of the respective examination in the case of written examinations. In the case of seminars, projects and seminar papers, the respective examination begins on the day after the end of the registration period. Deregistration is also possible here up to

one day before the start of the respective examination. The student is then deemed as not to have registered for the examination.

- (3) The dates for submissions, written and oral examinations at TU Dortmund University are set by the Chairperson of the Examination Board and announced in a suitable manner in good time at the beginning of the lecture period. The individual dates for oral examinations are announced one week before the examination.
- (4) Examination procedures carried out at TU Dortmund University take into account the statutory maternity protection periods as well as periods of absence due to the care and upbringing of children within the meaning of Section 25 (5) of the Federal Education and Trainings Assistance Act (*Bundesausbildungsförderungsgesetz*, BAFöG), the care of the spouse, the registered partner or a relative in the direct line or first-degree relative by marriage, insofar as the latter is in need of care.
- (5) Different regulations may apply to examinations conducted by another Department or at the Università di Trento or the Ecole Centrale de Nantes as part of the degree program.

Section 13

Repetition of examinations, passing the Master's examination, final failing of an examination

- (1) The module examinations and the individual partial assessments may be repeated twice if they have not been passed or are deemed to have been failed. If a partial assessment is not passed, only this partial assessment must be repeated. Resit/Repeat examinations at TU Dortmund University must be conducted in the same form as the first attempt in order to ensure comparability and examination fairness. Passed examinations cannot be repeated. The final failure of compulsory elective or elective modules can be compensated by successfully completing other compulsory elective or elective modules.
- (2) Notwithstanding subsection 1, the Master's thesis at TU Dortmund University can only be repeated as a whole and then only once with a new topic. The topic of the Master's thesis may only be returned in accordance with Section 22 (8) if no use was made of this option when writing the unsuccessful Master's thesis.
- (3) Coursework to be completed at TU Dortmund University can be repeated as often as required.
- (4) If a module examination or partial assessment consists of a written examination and this is taken at the Department of Architecture and Civil Engineering at TU Dortmund University, the candidate must take a supplementary oral examination after the second unsuccessful repetition of the examination before a grade of "fail" (5.0) is awarded. Section 9 (9) and (10) and Section 21 apply accordingly to the examination and assessment of the supplementary oral examination. The grade "sufficient" (4.0) or the grade "insufficient / fail" (5.0) is determined on the basis of the supplementary oral examination. The overall result is to be recorded in a protocol and announced to the student following the supplementary oral examination. The supplementary oral examination is excluded if the grade "insufficient / fail" (5.0) was determined due to an attempt to deceive, an absence or a withdrawal without valid reasons in accordance with Section 18. In addition, the entitlement to a supplementary oral examination is forfeited if the student fails to appear for the supplementary oral examination without excuse. For

- examinations organized by other departments of TU Dortmund University and at the Università di Trento or the Ecole Centrale de Nantes, different regulations may apply.
- (5) The Master's examination is passed if all 120 credit points have been achieved from the module examinations and partial assessments as well as for the Master's thesis.
 - (6) The Master's examination has been definitively failed if
 - a) the Master's thesis is again failed after repetition or is deemed to have been failed or
 - b) the candidate can no longer acquire the required minimum number of credit points or
 - c) one of the compulsory modules listed in the appendix to these Examination Regulations has been definitively failed.
 - (7) If the Master's examination has been definitively failed or if an examination is deemed to have been definitively failed, candidates will receive a written notification of this. The notification must include instruction on legal remedies. Upon request, the candidate will be issued with a certificate listing the examinations which have been passed; it will be added that this certificate is not valid for submission to another university.

Section 14 Examination Board

- (1) The Department of Architecture and Civil Engineering of TU Dortmund University forms an Examination Board for the organization of the examinations to be taken at TU Dortmund University with the exception of the Master's thesis and the tasks assigned by these Examination Regulations.
- (2) The Examination Board in accordance with subsection 1 consists of seven members, namely four members from the group of university lecturers/teachers at TU Dortmund University, one member from the group of academic staff of the Department of Architecture and Civil Engineering at TU Dortmund University and two members from the group of students enrolled in the Master's degree program "Mechanics of Sustainable Materials and Structures" at TU Dortmund University. The members are elected by the Department Council of the Department of Architecture and Civil Engineering separately for two years, the member from the group of students for one year. The Examination Board elects from its members of the group of university lecturers the Chairperson and the Deputy Chairperson from. Representatives are elected by the Department Council for the members of the Examination Board with the exception of the Chairperson and Deputy Chairperson. Re-election is permitted. The composition of the Examination Board is announced by the Dean. If the election of the Examination Board or individual members is declared invalid after taking office, this does not affect the legal validity of the previously passed resolutions and official acts.
- (3) The Examination Board ensures that the provisions of the Examination Regulations are observed and ensures that the examinations to be conducted at TU Dortmund University are carried out properly. In particular, it is responsible for deciding on appeals against decisions made in the university's own examination procedure and for coordinating cross-Department, university-specific questions and problems. In addition, the Examination Board must report to the Department Council of Architecture and Civil Engineering regularly, at least once a year, on the development of courses, examinations

and study periods. It makes suggestions for the reform of Examination Regulations and curricula. The Examination Board may delegate the following tasks to the Chairperson for the study phase to be carried out at TU Dortmund University and the examination procedures to be completed at TU Dortmund University: recognition issues, urgent decisions, complaints, appointments of examiners; whereas decisions on appeals concerning the examination procedure at TU Dortmund University and the obligation to report to the Department Council may not be delegated to the Chairperson of the Examination Board.

- (4) The Examination Board has a quorum if, in addition to the Chairperson or its Deputy and two other members from the group of university lecturers/teachers, at least two other members with voting rights are present. The Examination Board decides by simple majority. In the event of a tie, the Chairperson has the casting vote. The student members do not participate in pedagogical-academic decisions. Such decisions include, in particular, the assessment, the recognition of achievements, the determination of examination tasks and the appointment of examiners and observers.
- (5) The members of the Examination Board have the right to attend the examination.
- (6) The meetings of the Examination Board are not public. The members of the Examination Board, including their Deputies, the examiners and the observers are bound by official secrecy. If they are not members of public service, they must be sworn to secrecy by the Chairperson of the Examination Board.
- (7) The Examination Board uses the administrative support of the Central Examinations Office of TU Dortmund University to carry out its tasks.
- (8) At the Università di Trento or the Ecole Centrale de Nantes, different responsibilities and regulations apply.

Section 15 Multilateral Board

- (1) A Multilateral Board shall be set up to carry out the following tasks:
 - Decisions on admission to the triple degree program in accordance with Art. 8.2 of the concluded Cooperation Agreement;
 - Decisions on the assignment of a partner university for the implementation of the fourth semester in accordance with Art. 3 of the concluded Cooperation Agreement;
 - Decisions on admission to the final thesis;
 - Consultation on all academic and non-academic issues relevant to the successful delivery of the triple degree program, as well as proposals regarding courses and learning outcomes;
 - Supervision of the organization and implementation of the courses at each partner university;
 - Organization of the annual working meeting at each partner university;
 - Elaboration of various academic and non-academic issues relevant to the successful implementation of the course organization and the administration of the graduation ceremony;

- Organization of joint conferences, summer schools or seminars, dissemination and advertising measures for the program.
- (2) The Multilateral Board consists of one lecturer/teacher from each partner university who is responsible for the courses of the triple degree program "Mechanics of Sustainable Materials and Structures" and one deputy member from each partner university. The members and deputy members of each university are appointed by the relevant committees of the partner universities for a term of office of 5 years. Re-election is permitted. The composition of the Multilateral Committee is announced at the partner universities in an appropriate manner. Other researchers or administrative staff of the partner universities may participate in the meetings of the Multilateral Committee in an advisory capacity. If the election of the Multilateral Committee as a whole or the election of individual members or deputy members is declared invalid after taking office, this shall not affect the legal validity of the decisions and official acts previously taken.
 - (3) The meetings of the Multilateral Board may also be held by telephone conference, video conference, e-mail or similar means. The Multilateral Committee is regularly constituted when at least one representative of each partner university is present. Decisions are taken unanimously.
 - (4) The meetings of the Multilateral Board are not public. The members of the Multilateral Board, including their deputies, are bound to secrecy.

Section 16

Examiners and observers

- (1) The Examination Board of TU Dortmund University appoints the examiners and observers responsible for the university's own examination procedures in accordance with the statutory national requirements. It may delegate the appointment to the Chairperson of the Examination Board. University lecturers at TU Dortmund University and other persons authorized to conduct examinations within the meaning of Section 65 (1) HG NRW may be appointed as examiners at TU Dortmund University. Anyone who has passed a Diplom or Master's examination in the relevant subject area or can provide evidence of relevant qualifications may be appointed as an observer.
- (2) The examiners are independent in the conduct of their examination activities.
- (3) At the Universtà di Trento and the Ecole Centrale de Nantes, different responsibilities and regulations may apply.

Section 17

Recognition of examination achievements, placement in higher program semesters

For the recognition of examination achievements outside the Master's degree program "Mechanics of Sustainable Materials and Structures" and the placement in higher semesters, the respective valid recognition regulations of the universities involved in the degree program apply. The Central Examinations Office of TU Dortmund University must be informed in writing of any recognition decisions.

Section 18

Absence, withdrawal, deception and violation of regulations

- (1) An examination taken at TU Dortmund University is deemed to have been graded as "insufficient / fail" (5.0) or "not passed" if the candidate does not appear for an examination date without good reason or if he or she withdraws from the examination after the start of the examination without good reason. The same applies if he or she fails to complete a written examination within the specified processing time.
- (2) The reasons given for the withdrawal or absence must be immediately reported to the Examination Board in writing and substantiated. In the event of illness of the candidate or a child for whom the candidate is primarily responsible, a medical certificate in the official language of the university responsible for the examination in question must be submitted. If the candidate is ill, the medical certificate must document the inability to take the examination. In the case of subsequent withdrawal from an examination taken, the medical certificate must state that the impairment of performance during the examination was not recognizable to the student for health reasons and that there was no reasonable cause to doubt the student's ability to perform. If the Examination Board does not recognize the reasons for the withdrawal or failure, the candidate will be informed of this in writing.
- (3) If an examination performance is influenced by cheating / deception (e.g. using unauthorized aids, copying text passages without labelling them as quotations, copying, etc.), the examination in question shall be graded as "insufficient / fail" (5.0) or "not passed". This also applies to attempts to cheat. If an attempt at cheating or cheating within the meaning of sentence 1 is detected by the examiner / supervisor during an examination, the supervisor records the attempt at cheating or cheating. The decision as to whether there has been an attempt to deceive or an act of deception and thus whether the examination has been assessed as "insufficient" (5.0) or "failed" is made by the respective examiner. A candidate who disrupts the proper conduct of the examination may be excluded from continuing the examination by the respective examiner or supervisor, usually after one warning. In this case, the examination in question is deemed to have been assessed as "insufficient / fail" (5.0) or "not passed". The respective reasons for the decision must be recorded in writing. In serious cases of cheating or disruption, the Examination Board may exclude the candidate from taking further examinations.
- (4) The Examination Board may require candidates for module examinations and partial assessments to provide a written declaration that they have written the work - or, in the case of group work, an appropriately marked part of the work - independently and have not used any sources or aids other than those specified and have marked verbatim and analogous quotations. Section 22 (10) remains unaffected.
- (5) The candidate may request that decisions in accordance with subsection 3 be reviewed by the Examination Board within a period of 14 days. Incriminating decisions must be communicated to the candidate immediately in writing, stating the reasons and providing information on legal remedies. The candidate must be given the opportunity to be heard before the decision is made.
- (6) At the Università di Trento or the Ecole Centrale de Nantes, different responsibilities and regulations may apply.

II The Master's examination

Section 19

Admission to Master's examination

- (1) Upon enrolment in the multiple Master's degree program "Mechanics of Sustainable Materials and Structures" at TU Dortmund University or admission as a cross-registered student at TU Dortmund University in accordance with Section 52 (2) HG NRW, a student is deemed to have been admitted to the examinations of this degree program, unless enrolment or admission is to be refused in accordance with subsection 2.
- (2) Enrollment or admission must be refused if
 - a) the candidate has definitively failed an examination required by these Examination Regulations in the Master's degree program "Mechanics of Sustainable Materials and Structures" at TU Dortmund University, at the Università di Trento or at the Ecole Centrale de Nantes or in another degree program that is significantly related in content to this degree program, or
 - b) the candidate has not yet received a final and legally binding decision on the final failure after passing the examination in one of the aforementioned degree programs due to a subsequent challenge to the examination notice.

Section 20

Scope of Master's examination

- (1) The Master's examination consists of:
 1. course-related examinations at TU Dortmund University amounting to 30 credit points,
 2. course-related examinations at the Università di Trento amounting to 30 credit points,
 3. course-related examinations at the Ecole Centrale de Nantes amounting to 30 credit points,
 4. the Master's thesis as part of the "Master's thesis elective area" amounting to 30 credit points.
- (2) The module overview (see appendix) shows the modules to be studied and the number of credit points to be earned in each case, the course types (compulsory / compulsory elective / elective) and forms of examination. Everything else is regulated by the module descriptions in the module handbook.

Section 21

Evaluation of course-related examination performances, acquisition of credit points, calculation of grades

- (1) The grades for the individual examinations are determined by the respective examiners according to the respective national grading system. At the same time, the international grade corresponding to the determined grade is also listed. The following scheme is used to translate the grades from the national grading system into the German grading system:

Italian → German		French → German		
Italian (from/to)		German	French	German
30	30L	1,0	A+	1,0
28	29	1,3	A	1,3
27		1,7	A-	1,7
26		2,0	B+	2,0
25		2,3	B	2,3
23	24	2,7	B-	2,7
22		3,0	C+	3,0
20	21	3,3	C	3,3
19		3,7	C-	3,7
18		4,0	D	4,0
<18		5,0	F	5,0

- (2) For the reverse translation into the Italian and French grading system, the higher number of points is always selected in the event of ambiguity with a possible wider range of grades. Only the German grading system is used to calculate the overall grade, but the Italian and French grading systems can also be used to issue certificates for individual passed modules.
- (3) Examination achievements that are not included in the overall grade are assessed either according to the grading scale in subsection 1 or according to the following simplified scale:
- passed* = a performance that at least meets the requirements
- not passed* = a performance that no longer meets the requirements due to significant deficiencies.
- (4) The number of credit points allocated to the respective module is acquired if the module has been assessed as at least "sufficient" (4.0) or "passed".
- (5) A written examination which was conducted at TU Dortmund University exclusively using the answer-choice procedure is deemed to have been passed if

- a) 60 % of the total number of points to be achieved have been achieved or
- b) the score achieved does not fall short of the average examination performance of the candidates who took the examination by more than 22%.
- (6) If the candidate has achieved the minimum number of points in accordance with subsection 5 and thus passed the examination, the grade is as follows:
- 1 = very good, if she or he has achieved at least 75 %
- 2 = good, if she or he has achieved at least 50 % but less than 75 %
- 3 = satisfactory, if she or he has achieved at least 25 % but less than 50 %
- 4 = sufficient, if she/he has achieved no or less than 25 %
- of the points to be achieved in excess of the minimum score.
- (7) If a written examination is only partially carried out using the answer-choice procedure, those tasks using the answer-choice procedure are assessed in accordance with subsections 5 and 6. The remaining tasks are assessed according to their usual procedure. The grade for the written examination is determined from both assessments, taking into account the proportion of the total number of points to be achieved in each case.
- (8) Notwithstanding the provisions of subsections 2 to 7, other regulations may apply at the Università di Trento or the Ecole Centrale de Nantes.
- (9) If the module is completed with a module examination, this grade is also the module grade. In the case of partial assessments, the module grade is calculated from the sum of the products of the grades of the partial assessments with their assigned credit points divided by the number of credit points of the module.

The module grades according to the German grading system are in words:

with an average value of up to 1.5	= very good
with an average value higher than 1.5 to 2.5	= good
with an average value higher than 2.5 to 3.5	= satisfactory
with an average value higher than 3.5 to 4.0	= sufficient
with an average value higher than 4.0	= not sufficient.

When calculating module grades, only the first decimal place after the decimal point is taken into account; all other decimal places are deleted without rounding.

- (10) The final cumulative grade of the Master's examination is calculated from the arithmetic mean of the German grades of all graded modules, including the Master's thesis, calculated in accordance with subsection 9, whereby the individual German grades are weighted with the respective number of credit points belonging to this module. To calculate the final cumulative grade, the module grades achieved at the partner universities (Università di Trento and Ecole Centrale de Nantes) must be converted into German grades in accordance with the conversion table in subsection 1.

The overall grade of the Master's examination is converted into the national country grades according to the following scheme, with linear interpolation between the interval limits. The grades in the Italian grading system are given without a decimal place after

the decimal point, the grades in the German grading system are given with one decimal place and the grades in the French grading system are given from A+ to D.

German → Italian				German → French		
German (from/to)		Italian (from/to)		German (from/to)		French
1,49	1,00	110L		1,29	1,00	A+
1,79	1,50	110		1,69	1,30	A
1,99	1,80	109		1,99	1,70	A-
2,19	2,00	108		2,29	2,00	B+
2,39	2,20	107		2,69	2,30	B
2,59	2,40	106		2,99	2,70	B-
2,79	2,60	105		3,29	3,00	C+
2,89	2,80	104		3,69	3,30	C
2,99	2,90	103		3,99	3,70	C-
3,09	3,00	102		4,00		D
3,19	3,10	101				
3,29	3,20	100				
3,39	3,30	98	99			
3,49	3,40	96	97			
3,59	3,50	94	95			
3,69	3,60	91	93			
4,00	3,70	60	90			

- (11) At TU Dortmund University, the final cumulative grade is also shown in a so-called "grading table" or, as at the Università di Trento and the Ecole Centrale de Nantes, in the form of a grade according to the European Credit Transfer System (ECTS). In addition, ECTS degrees can be awarded at the Università di Trento and the Ecole

Centrale de Nantes for all graded examinations. The grades according to ECTS are shown as follows:

- A =generally the best approx. 10 % of successful students;
- B =generally the next approx. 25 % of successful students;
- C =generally the next approx. 30 % of successful students;
- D =generally the next approx. 25 % of successful students;
- E =generally the next approx. 10 % of successful students.

- (12) If ECTS grades are formed at individual partner universities, this is generally done by comparing the cohorts of the last six semesters. If this group is smaller than 50 people, the reference group is to be determined from the last 10 semesters. The current semester should not be taken into account when calculating ECTS grades. As long as no statistical data is available to calculate a relative assessment, no ECTS grades are issued. For TU Dortmund University, deviating regulations may apply to the formation of the so-called "grading table". The composition of the comparison group must be differentiated according to the degree and the degree program. In addition, a different composition of the comparison group may be made in objectively justified cases.

Section 22

Master's thesis

- (1) The Multilateral Committee is responsible for deciding on admission to the Master's thesis in accordance with Section 15 (1). The Master's thesis earns 30 credit points.
- (2) The Master's thesis should demonstrate that the candidate is able to work independently on a problem using scientific methods within a specified period of time. The result of the Master's thesis must be presented and discussed in public as part of a final oral examination at TU Dortmund University before a final committee (*Abschlusskommission*, Section 22 (4)), at the Università di Trento and at the Ecole Centrale de Nantes before the according authority under national law.
- (3) The Master's thesis is generally written in English. In agreement between the examiner and the respective candidate, the Master's thesis may also be written in German, Italian or French.
- (4) A final committee is formed to carry out the Master's thesis at TU Dortmund University, including the oral examination. The final committee is made up of a professor from TU Dortmund University as supervisor (first assessor) and at least one second examiner (second assessor) from TU Dortmund University or one of the two partner universities. Other scientists who meet the requirements of Section 65 (1) HG NRW or comparable national regulations of the partner universities may, with the approval of the final committee or the bodies responsible under national law, write and supervise the Master's thesis.
- (5) The Master's thesis is issued at TU Dortmund University at the candidate's request via the final committee. Before the Master's thesis is issued, the candidate must have been admitted by the Multilateral Committee in accordance with subsection 1. Proof of admission must be enclosed with the application. The date of issue must be recorded.

- (6) The Master's thesis must always be written independently as an individual piece of work. However, this does not preclude the topic of the Master's thesis being worked on within a working group. In this case, it must be ensured that the contribution of the individual to be assessed as an examination achievement is clearly distinguishable and assessable according to objective criteria and that the requirements according to subsection 2 are fulfilled. The scope of the Master's thesis specified in subsection 9 must appropriately exceed the requirements of an individual thesis.
- (7) The candidate has a period of six months to complete the Master's thesis. The time allotted for work during this period is 900 hours. The topic and the task must be such that the Master's thesis can be completed within the allotted time. Upon justified request by the candidate, the degree committee, in agreement with the Multilateral Committee, may exceptionally grant a one-off extension of up to four weeks for a Master's thesis to be completed at TU Dortmund University. A request for an extension must be submitted to the final committee at least 14 days before the end of the completion period. In the event of illness, the deadline for submission to TU Dortmund University can be extended by a maximum of half the processing time. A medical certificate is required for this. The extension corresponds to the period of illness. If the period of illness exceeds half of the processing time, the candidate will be given a new topic via the final committee without recognition of an examination attempt. For Master's theses completed at the Università di Trento and the Ecole Centrale de Nantes, different responsibilities and regulations may apply.
- (8) The topic of the Master's thesis can only be returned once and only within the first fourteen days after the topic has been issued; the Master's thesis is then deemed not to have been started. The topic of the Master's thesis may only be returned if the candidate has not made use of this option when writing an unsuccessful Master's thesis.
- (9) The Master's thesis should not exceed 100 pages. Master's theses include an oral presentation of the results (subsection 11).
- (10) When submitting the Master's thesis, the candidate must declare in lieu of an oath (affidavit) that he or she has written the thesis independently and has not used any sources or aids other than those specified and has identified verbatim and analogous quotations. Unpublished contributions must also be included in the list of sources. A standardized form from the Central Examinations Office must be used for the affidavit and must be signed and included as an integral part of the Master's thesis when it is submitted or uploaded as one file together with the thesis in accordance with the digital submission procedure pursuant to Section 23 (1).
- (11) For oral presentations of the results of the Master's thesis to be held at TU Dortmund University, approx. 30 minutes are allowed per candidate. Section 9 (10) applies accordingly. The date for the oral presentation must be communicated to the Central Examinations Office of TU Dortmund University in good time. Deviating responsibilities and regulations may apply for oral presentations to be given at the Università di Trento or the Ecole Centrale de Nantes.

Section 23

Submission and assessment of Master's thesis

- (1) For the submission of a Master's thesis to be submitted to TU Dortmund University, the provisions of the Regulations for the Submission of Theses (*Ordnung zur Abgabe von Abschlussarbeiten*, Bachelor's/Master's) of TU Dortmund University apply in the currently valid version. If the uploading of individual theses or parts of theses is not suitable for technical reasons and/or if there is a contractual agreement with third parties that excludes the publication of theses or parts of theses, the previous analog procedure for the submission of theses in accordance with subsection 2 applies by decision of the Examination Board.
- (2) In the analog procedure, two copies of the Master's thesis to be completed at TU Dortmund University must be submitted to the Central Examinations Office of TU Dortmund University by the deadline and also in an electronic version that can be used by a software product for plagiarism detection; the time of submission must be recorded. In the case of postal delivery, the date of the postmark applies. If the Master's thesis is not submitted on time, it will be graded as "insufficient / fail" (5.0).
- (3) The Master's thesis to be completed at TU Dortmund University, including the oral presentation of the results, must be assessed and evaluated by the members of the final committee (*Abschlusskommission*).
- (4) The individual assessments are to be carried out in accordance with Section 21 (1) and justified in writing. The grade of the Master's thesis to be completed at TU Dortmund University is calculated from the arithmetic mean of the individual grades of all members of the final committee, provided that the individual difference does not exceed 2.0. If the difference is more than 2.0 or if an examiner grades the Master's thesis as "insufficient / fail" (5.0), the nationally responsible bodies will appoint a further examiner to grade the Master's thesis. In this case, the grade of the Master's thesis is calculated from the arithmetic mean of the better grades. However, the Master's thesis can only be graded as "sufficient" (4.0) or better if at least two grades are "sufficient" or better. Section 21 (9) applies accordingly.
- (5) The candidate must be informed of the assessment of the Master's thesis no later than three months after submission.
- (6) For a Master's thesis to be completed at the Università di Trento or the Ecole Centrale de Nantes, different responsibilities and regulations may apply.

Section 24

Additional qualifications

- (1) Upon application via the Multilateral Committee, students may take examinations in modules other than those prescribed before passing or failing the Master's examination. No credit points can be acquired with these examinations.
- (2) Additional qualifications are not taken into account when determining the final cumulative grade. At the student's request, the results of these examinations can be included in the Transcript of Records at TU Dortmund University.
- (3) Other, different regulations may apply at the Università di Trento or the Ecole Centrale de Nantes.

Section 25

Master's certificate, documents for a change of university

- (1) As a rule, the candidate will receive a certificate of successful completion of the Master's examination at TU Dortmund University no later than four weeks after the assessment of the last examination. The certificate bears the date of the day on which the last examination was completed. The final cumulative grade of the Master's examination, including the ECTS grade in accordance with Section 21 (11), the topic and the grade of the Master's thesis must be included in the certificate. If the final cumulative grade is not also issued as an ECTS grade, but by a so-called "grading table" (*Einstufungstabelle*), the candidate shall receive an appendix to the certificate in which further details and information on the so-called "grading table" are listed.
- (2) The Transcript of Records of TU Dortmund University shows the modules and module grades as well as the number of credit points earned in the individual modules. In addition, at the candidate's request, further achievements that are not included in the module and final cumulative grade can be listed. Furthermore, voluntary internships completed as part of the degree course, which have been approved on application by the joint Examination Board and which are related to the chosen degree course in terms of content and subject matter, can also be included.
- (3) A Diploma Supplement is attached to the certificate of TU Dortmund University. In particular, it describes the essential course content on which the degree is based, the course of study, the skills acquired with the degree and the awarding university. The Diploma Supplement is issued in German and English. In addition, an overview of the achieved results (Transcript of Records) is attached to the certificate.
- (4) At the candidate's request, a certificate of the already completed examination achievements (grade certificate) can also be issued before the Master's examination is completed, containing a list of the successfully completed modules with the credit points and achieved examination results and the grades in accordance with Section 21 (1).
- (5) The certificate of TU Dortmund University is signed by the Chairperson of the Examination Board and bears the seal of the Department of Architecture and Civil Engineering.
- (6) The certificate of TU Dortmund University and the Transcript of Records as well as the Diploma Supplement are issued in English and German.
- (7) The certificates and other documents of the other universities involved in the Master's degree program (Università di Trento and Ecole Centrale de Nantes) are issued according to the rules of the respective university.

Section 26

Master's Diploma

- (1) The candidate will receive three Master's Diplomas, one each from TU Dortmund University, the Università di Trento and the Ecole Centrale de Nantes.
- (2) The candidate will receive the Master's Diploma of TU Dortmund University with the date of the certificate in German and English. The award of the academic degree is recorded in the Master's Diploma in accordance with Section 4. The graduate's degree program must be stated on the Master's Diploma.

- (3) The Master's Diploma of TU Dortmund University is signed by the Dean and the Chairperson of the Examination Board of the Department of Architecture and Civil Engineering and bears the seal of the Department of Architecture and Civil Engineering.
- (4) The Master's Diplomas of the other participating universities (Università di Trento and Ecole Centrale de Nantes) are issued according to the rules of the respective university.

III Final provisions

Section 27

Invalidity of examination results and withdrawal of the Master's degree

- (1) All three partner universities shall notify each other of any subsequent invalidation of examination results so that each can carry out its own procedure for amendment or annulment. At TU Dortmund University, the regulations listed below in subsections 2 to 6 apply.
- (2) If the candidate has cheated/deceived in an examination and this fact only becomes known after the certificate has been issued, the Examination Board may subsequently correct the grades for those examinations in which the candidate has cheated and declare the examination failed in whole or in part.
- (3) If the requirements for admission to an examination were not met without the candidate intending to deceive about this and this fact only becomes known after the certificate has been issued, this deficiency is remedied by passing the examination. If the candidate has intentionally obtained admission wrongly, the Examination Board shall decide on the legal consequences in accordance with the Administrative Procedure Act NRW (*Verwaltungsverfahrensgesetz für das Land Nordrhein-Westfalen, VwVfG NRW*).
- (4) Before a decision is made in accordance with subsections 1 and 2, the concerned person shall be given the opportunity to make his or her views known orally or in writing.
- (5) In the event of a decision pursuant to subsection 1 or subsection 2 sentence 2, the incorrect examination certificate shall be withdrawn and, if necessary, a new one issued. A decision in accordance with subsection 1 or subsection 2 sentence 2 is excluded after a period of five years following the issue of the certificate.
- (6) The Master's degree is revoked and the certificate shall be withdrawn if it is subsequently established that the degree was obtained by deception or if essential requirements for the award were mistakenly considered to have been met. The Department Council of the Department of Architecture and Civil Engineering decides on the withdrawal.
- (7) At the Università di Trento or the Ecole Centrale de Nantes, different responsibilities and regulations may apply.

Section 28

Viewing of the examination records

- (1) After the result of an examination written at TU Dortmund University has been announced, a viewing is granted. Copies or other reproductions true to the original may be made during the viewing. The use of copies and other reproductions of the examination is only permitted for the personal use with the purpose of the examination viewing. In particular, the publication, duplication, distribution and any kind of

exploitation as well as the transfer to third parties is not permitted. In case of violations, considerable legal consequences are to be expected. The time, mode and place of the viewing will be determined by the examiners and announced in a suitable form at the latest when the examination results are announced.

- (2) Upon request, students will be granted access to the other written examinations completed at TU Dortmund University, the related assessments of the examiners and the examination records of the oral examinations.
- (3) The application must be submitted to the Chairperson of the Examination Board within three months of the announcement of the examination result. The Chairperson of the Examination Board shall determine the time and place of the inspection.
- (4) Deviating from this, other regulations may apply for the Università di Trento and the Ecole Centrale de Nantes.

Section 29

Scope of application, entry into force and publication

- (1) These Examination Regulations are published in the Official Communications of TU Dortmund University and enter into force on 1 October 2024.
- (2) These Examination regulations apply to all students who have been enrolled for the first time in the Winter semester 2024/2025 at TU Dortmund University for the Master's degree program "Mechanics of Sustainable Materials and Structures".

Issued on the basis of the resolution of the Department Council of the Department of Architecture and Civil Engineering of 22 November 2023 and the resolutions of the Rectorate of TU Dortmund University of 8 November 2023, of the institution of the Università di Trento of 10 November 2023 and the institution of the Ecole Centrale de Nantes of 23 October 2023.

Note

Attention is drawn to the fact that, pursuant to Section 12 (5) of the Higher Education Act of the State of North Rhine-Westphalia (*Hochschulgesetz*, HG NRW), a violation of procedural or formal requirements of the university's regulatory or other autonomous law can no longer be asserted after the expiry of one year from the date of this announcement, unless

1. the regulations have not been duly published,
2. the Rectorate has previously objected to the decision of the committee adopting the regulations,

3. the formal or procedural fault has been notified to the university in advance and the violated legal provision and the fact giving rise to the fault have been indicated, or
4. the legal consequence of the exclusion of the right to complain was not pointed out when the regulations were publicly announced.

Dortmund, 8 December 2023

The President
TU Dortmund University

Professor Dr. Manfred Bayer

Appendix : Module overview**First semester (TU Dortmund University)****Mandatory modules**

No.	Module	ECTS	Grading	Type of examination
6 01 01	Engineering mathematics	5	Yes	WE
6 01 02	Advanced continuum mechanics	8	Yes	WE
6 01 03	Enriched continua and metamaterials	5	Yes	WE
6 01 04	Nonlinear structural analysis	6	Yes	WE

Elective modules

No.	Module	ECTS	Grading	Type of examination
6 01 05	Construction with trees in practice	3	Yes	HW/PRZ
6 01 06	"How sustainable can building materials be?"	3	Yes	PRJ
6 01 07	Structural systems in engineering practice	3	Yes	WE/HW
6 01 08	Organic design and structures	3	Yes	PRJ

Second semester (Università di Trento)**Mandatory modules**

No.	Module	ECTS	Grading	Type of examination
6 02 01	Stability of structures	6	Yes	HW/PRZ
6 02 02	Modeling and simulation of structures	6	Yes	PRJ
6 02 03	Mechanics of solids and structures under extreme conditions	6	Yes	OE
6 02 04	Machine learning for wireless structural health monitoring	6	Yes	WE/PRJ

Elective modules

No.	Module	ECTS	Grading	Type of examination
6 02 05	Metastructures	6	Yes	PRZ
6 02 06	Risk analysis and structural reliability	6	Yes	HW/PRZ

Third semester (Ecole Centrale de Nantes)**Mandatory modules**

No.	Module	ECTS	Grading	Type of examination
6 03 01	Mechanics of porous media	5	Yes	WE
6 03 02	Homogenization methods for materials and structures	5	Yes	WE/PRJ
6 03 03	Coupled problems in mechanics: from mathematical formulation to numerical methods	6	Yes	WE/PRJ
6 03 04	Design and behavior of modern concrete	5	Yes	WE
6 03 05	Modern Language	2	Yes	WE
6 03 06	Summer school	2	No	PRZ

Elective modules

No.	Module	ECTS	Grading	Type of examination
6 03 07	Durability and Structural Maintenance	5	Yes	WE/PRJ
6 03 08	Earthquake engineering	5	Yes	WE

Fourth semester (TU Dortmund University or Università di Trento or Ecole Centrale de Nantes)

Mandatory modules

No.	Module	ECTS	Grading	Type of examination
6 04	Master's Thesis	30	Yes	Pursuant to Sections 21, 22

Legend:

MH = module handbook

WE = written exam

HW = homework

PRZ = presentation

OE = oral exam

PRJ = project

A more detailed reference is given in the corresponding module handbook.