



Description of the study programme

Source: SAAVŠ

Name of the higher education institution: University of Žilina
Address of the higher education institution: Univerzitna 8215/1, 010 26 Žilina
Identification number of the higher education institution:
Name of the faculty: Faculty of Civil Engineering
Address of the faculty: Univerzitna 8215/1, 010 26 Žilina

Institution body for approving the study programme: **Accreditation Board of UNIZA**
Date of the study programme approval or the study programme modification: 17.8.2022
Date of the latest change¹ in the study programme description: 17.8.2022
Reference to the results of the latest periodic review of the study programme by the institution:
<https://www.uniza.sk/index.php/component/content/article/5565-spravy-o-hodnoteni-studijnych-programov-na-svf-za-akademicky-rok-2023-2024?catid=2:uncategorised&Itemid=101>
Reference to the assessment report of the application for accreditation of the study programme under § 30 of Act no. 269/2018 Coll.: 166692022/139-VS-OAC

1. Basic information about the study programme			
a	Name of the study programme	Theory and Structures of Engineering Constructions	Number according to the register of study programmes 100733
b	Degree of higher education	3	ISCED-F education degree code 864
c	Place(s) of delivery of the study programme		
d	Name of the field / Combination of two fields of study	Civil Engineering	Number of the field of study ISCED-F codes of the field/fields 3659V00 3644
e	Type of the study programme	academically oriented	
f	Awarded academic degree	PhD.	
g	Form of study	daily	
h	Cooperating institutions and the range of study obligations the student fulfils at each of the given institutions		
i	Language or languages in which the study programme is delivered	English	
j	Standard length of the study expressed in academic years	3 years	
k	Capacity of the study programme (planned number of students)	1. grade: 10 2. grade: 10 3. grade: 10 4. grade:	
	Actual number of applicants	New study programme	
	Actual number of students	New study programme	
2. Graduate profile and learning objectives			
a	Learning objectives of the study programme such as student's abilities at the time of completion of the programme and the main learning outcomes		

¹ If the change is not a modification of the study programme according to § 30 of Act no. 269/2018 Coll.

2. Graduate profile and learning objectives

Graduate profile

The graduate is a highly qualified specialist in the field of Civil Engineering with a main focus on the theory of design and analysis of engineering structures, transportation and civil engineering and their components. The graduate can creatively apply the principles of scientific research, propose new approaches and improve existing methods of theory of engineering constructions. He masters the progressive tools of design and theory of engineering constructions, as well as the methodology of their diagnostics and rehabilitation. He is able to apply the theoretical knowledge gained in the study in the experimental analysis of the behavior of engineering constructions and in their combination with the model solution and the results of numerical simulations.

Goals of education

[CV 1] To enable of top students with a suitable combination and education in the master's degree to make a qualified decision to choose the 3-rd degree of university study and a suitable doctoral study program in the field of Civil Engineering.

[CV 2] To recommend and propose to top students of other departments at the faculty, applicants from other faculties and from abroad (based on the requirements of the graduate profile) the completion of education in the 3rd level of study in the form of supplementary subjects.

[CV 3] To prepare students by appropriate choice and selection of subjects from the core of knowledge and a combination of compulsory and optional subjects for the future profession of scientist, researcher and manager in the field of construction.

[CV 4] To teach students the methodology of scientific research, methods of theoretical analysis, experimental research and thus prepare them for the profession of scientist, researcher and innovator.

[CV 5] To prepare students to master specialized software in the field of scientific analysis, computer graphics, BIM tools, modelling, simulation and other computer and information technologies. To support knowledge for working with the most modern software products focused on their specialization.

[CV 6] To prepare students for the processing of scientific and professional analysis of the theory of design of modern, reliable and durable engineering structures, including the use of smart materials, perspective and economic load-bearing structures, using modern technologies of their construction and enable them to conduct scientific research in studios, laboratories and line transport buildings.

[CV 7] To develop the specifics of study programs within the faculties of civil engineering in the Slovak Republic, especially by the increased orientation of the study programs of the Faculty of Civil Engineering UNIZA on engineering structures and transportation constructions with a large share in the research of evaluation and rehabilitation of existing engineering structures.

[CV 8] Make available to students current international efforts, documents and commitments in the areas of: Green Deal, Paris and Dublin Declarations, White Paper, sustainable development and construction, circular economy, or new ones that are still emerging.

[CV 9] To expand the area of knowledge of students by inviting to selected lectures by important experts from practice and researchers from research institutes in the Slovak Republic and abroad.

[CV 10] To enable students to participate in international mobilities or internships in order to gain the latest knowledge and trends in research in the field of theory and construction of civil engineering.

Learning outcomes:

Graduate:

[VV1] He/she will gain highly specialized knowledge of the theory of design, preparation, implementation, maintenance, renovation and remediation of civil engineering in their complex understanding and interrelationships, as well as in the areas of research.

[VV2] He/she can work with specialized software for scientific and technical analysis, controls computer graphics, simulation techniques and the latest computer and information technology, including BIM resources.

[VV3] Masters the methods of research, development and evaluation of mechanical resistance and stability, quality, safety, efficiency, energy efficiency, environmental aspects and sustainability of civil engineering.

[VV4] Can independently integrate and apply theoretical and practical knowledge, critically analyse and assess proposals in the field of research and development of civil engineering and their immediate surroundings.

[VV5] He/she presents his own solutions to problems in research and development of civil engineering and creatively applies the acquired knowledge in practice.

[VV6] Can model, optimize, and evaluate material, construction, technical and technological solutions associated with the design, implementation, operation, maintenance, renewal, and liquidation of engineering structures and optimize alternative solutions in relation to static, environmental and economic parameters of sustainability in the environment of the most modern information and virtual technologies.

[VV7] Demonstrates a systematic understanding of the field of civil engineering in the acquisition of skills and methods of scientific research associated with the field corresponding to the current state of knowledge in the field. She understands the construction work as a complex whole in its qualitative, static, environmental, energy, social, economic, technical-functional, urban, and cultural contexts within its life cycle.

[VV8] Can research, develop, and manage the design and implementation of engineering structures, including their use, reconstruction, and environmentally sound disposal, with a minimum of carbon footprint, with a high degree of creativity, innovation and independence.

[VV 9] He/she has an innovative mind set, is prepared to present the results of his own research and analysis professionally at a scientific level and is competent to solve scientific problems within an interdisciplinary scientific team.

2. Graduate profile and learning objectives

[VV 10] He/she is able to support technological, social and cultural progress in a knowledge-based society in an academic and professional context.

Indicated professions for which the graduate is prepared at the time of completion and the potential of the study programme from the point of view of graduate's employability

The graduate has a wide range of applications in the positions of project manager of civil engineering structures, control structural engineer of civil engineering, chief geotechnical engineer, chief project engineer, as well as in the whole spectrum of other professions in civil engineering and transport construction, including state administration in this area. It is ready for educational and creative scientific research activities within the academic environment or in research centres and science parks, or other research-oriented organizations.

Some of the graduates of this Study Program leave for practice after graduation. Similar to a 2nd degree graduate, after 3 years of practice he can apply for a qualification as:

Authorized engineer for civil engineering structures (category I2) with the authorization to prepare project documentation for building permits and to provide technical and economic advice related to civil engineering structures, prepare expert opinions, and estimates and perform professional author's supervision over construction according to project documentation verified building authority territorial proceedings or in construction proceedings.

Authorized engineer for statics (category I3) with authorization to provide services reserved for structural engineers according to general regulations, especially for the preparation of project documentation of structures, verification of projects in terms of mechanical resistance and stability of buildings, surveys, construction measurements and construction diagnostics and technical consultancy related to statics and dynamics of structures of civil engineering - focus on objects of transport structures.

When choosing these professions, the assumption of performing activities belonging to the chief project engineer, respectively to the control engineer for statics.

The performance of these jobs is regulated by the following legal regulations:

Act no. 455/1991 Coll. on Trade Licensing (Trade Licensing Act), as amended, if the employment is performed on the basis of a trade license.

Act no. 50/1976 Coll. on Spatial Planning and Building Regulations (Building Act) as amended.

Act no. 138/1992 Coll. on authorized architects and authorized civil engineers, as amended.

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If the graduate remains in the academic environment after graduation, he / she is qualified to perform the profession of a researcher and after completing lifelong learning in the field of pedagogical science to perform the profession of university teacher.

Relevant external stakeholders who have provided the statement or a favorable opinion on the compliance of the acquired qualification with the sector-specific requirements for the profession

Name of External Stakeholder: Slovak Chamber of Civil Engineers (SCCE).

3. Employability

Evaluation of the study programme graduates employability

Graduates of the theory and construction of engineering structures study program show almost zero unemployment during their duration, respectively 100% employment. They work as designers in design companies with an orientation in engineering structures and transport structures, self-employed persons, or they remain in the academic environment as researchers or university teachers.

The portal www.uplatnenie.sk for the years 2018 and 2019 does not mention their applicability in practice due to the small number of graduates.

Successful graduates of the study programme

Ing. Jozef Prokop, PhD. - researcher at the Department of Structures and Bridges, Faculty of Civil Engineering, UNIZA

Ing. Michal Šmalo, PhD. - top transport construction designer, Rambol, design and consulting company, Denmark

Ing. Eva Pitlova, PhD. - researcher, Transport Research Centre Brno, Czech Republic

Ing. Miroslav Strieška, PhD. - top designer of engineering structures, Valbek & Prodex, spol. S.r.o, Bratislava

Ing. Martin Vavruš, PhD. - Assistant Lecturer at the Department of Structures and Bridges, Faculty of Civil Engineering, UNIZA

Ing. Matej Brna, PhD. - researcher at the Department of Highway and Environmental Engineering, Faculty of Civil Engineering, UNIZA

Evaluation of the study programme quality by employers (feedback)

3. Employability

VALBEK a PRODEX, s.r.o. - Bratislava, a design company, employs theory and construction of engineering structures study program graduates in the field of bridge design, railways and roads - it employs our graduates dedicated to bridge design and is satisfied with their readiness and knowledge.

Faculty of Civil Engineering, UNIZA - employs graduates of theory and construction of engineering structures study program and is satisfied with their readiness and allows them further education and qualification development.

INSET, s.r.o., Division Slovakia - diagnostics of engineering and engineering structures, employs theory and construction of engineering structures graduates, expresses satisfaction with the readiness of our graduates.

Transport Research Centre (CDV) - a research organization in the field of transport and transport infrastructure, employs theory and construction of engineering structures graduates and declares the excellent readiness of our graduates for research activities within the CDV.

4. Structure and content of the study programme

Rules for the design of study plans within the study programme

At the university level, the following documents generally define processes, procedures, and structures:
Directive No. 203 - Rules for the Creation of Recommended Study Plans for UNIZA Study Programs

Directive No. 204 - Rules for the Creation, Modification, Approval and Cancellation of Study Programs at the University of Žilina

Directive No. 205 - Rules for Assigning Teachers to the Provision of Study Programs at the University of Žilina

Directive No. 212 - Rules for the Definition of the Workload of Creative Employees of the University of Žilina

Specifically for the 3rd degree of study, the processes, procedures and structures are defined by Directive no. 216: Quality assurance of doctoral studies at the University of Žilina - <https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-216.pdf>

a At the level of the study program, the above-mentioned guidelines are strictly observed. Study plans are based on accepted university rules.

Education in the doctoral study program of theory and structures of engineering constructions (TSEC) is carried out on the basis of the individual study plan of the doctoral student, under the guidance of the supervisor. The doctoral student's study plan is determined by the supervisor in accordance with the recommended theory and construction of engineering structures study plan listed in Annex 1.

Education is based on the acquisition of knowledge at the level of current knowledge and the doctoral student's own contribution to it. It is the result of scientific research and independent creative activity of the doctoral student. The quality in the 3rd level of higher education depends on the quality of the scientific research work of the training workplace, therefore it is necessary that the individual study plans of theory and construction of engineering structures doctoral students are linked to their scientific research activities and research activities of the supervisor, which are carried out mainly through research projects.

The supervisor of the doctoral student is responsible for the quality and level of the study and the individual study plan, while the doctoral student actively participates in its creation. The individual study plan is approved by the trade union commission, respectively working group and guarantor of the study program.

The doctoral study consists of a study, educational and scientific part, the content and mutual relationship in credit terms of which are regulated by UNIZA's internal regulations. The organization of doctoral study programs at UNIZA is governed by the provisions of Directive No. 110 - Study Regulations for the Third Degree of the University Study at the University of Žilina - <https://www.uniza.sk/images/pdf/doktorandske-studium/Smernica2015.pdf>.

b Recommended study plans for individual study paths

b	1. grade		2. grade		3. grade	
	1. semester	2. semester	3. semester	4. semester	5. semester	6. semester
Field of study: Civil Engineering Name of the study programme: Theory and Structures of Engineering Constructions	Compulsory courses					
	Applied Mathematics Applied Physics Methodology of Research 1 Foreign Language EN Teaching activities Research activities Project of PhD. theses	Foreign Language EN Teaching activities Research activities Project of PhD. theses Preparation of Research Experiment	Teaching activities Research activities Project of PhD. theses Doctoral Thesis	Teaching activities Research activities Publication activities PhD. Theses	Research activities Publication activities PhD. Theses	Dissertation and its Defense
Compulsory optional courses						
Mathematical-computer Simulation Selected Chapters from Geomechanics Environmental Science Reliability and Reconstructions of Engineering Constructions Selected Chapters from Road Engineering Selected Chapters from Traffic Engineering Pavement Mechanics Theory of Road and Highways Maintenance Concrete and Masonry Structures Concrete Bridges Steel Structures Steel Bridges Stability and Plasticity of Structures Underground Constructions Selected Chapters from Railway Engineering Railway Tracks Mechanics Theory of railway tracks maintenance						
<small>subjects from the core of knowledge are written in bold</small>						

c	The study programme, in the structure of compulsory, compulsory optional and optional courses Profile courses of the relevant study path (specialization) within the study programme - Appendix 1 Number of credits, the achievement of which is a condition for proper completion of studies
d	180 Other requirements that the student must meet within the study programme and for its proper completion, including the requirements for state examinations, rules for re-study and rules for the extension, interruption of study Conditions during the study During his / her studies, the doctoral student must obtain the prescribed number of credits, usually for the following activities: <ol style="list-style-type: none"> completion of specialized doctoral lectures and seminars according to the doctoral student's study plan, successful completion of the dissertation examination, independent activity in the field of scientific research and pedagogical work (publications, active co-solution of scientific tasks, etc., supervision of Student Research and Professional Activities theses, final theses of bachelor studies, etc.), acceptance of dissertation for defence. <p>The doctoral student's study plan consists of a study part, which ends with a dissertation examination, a scientific part, and the defence of the dissertation. The number of credits for individual activities is determined by the theory and construction of engineering structures study plan and approved by the Trade Union Commission and the Scientific Board of the Faculty of Civil Engineering.</p> <p>The study part of the doctoral student's study plan consists mainly of participation in lectures, seminars, and individual study of professional literature according to the focus of the dissertation, for which the supervisor allocates credits in accordance with the study credit system. The individual study plan of the doctoral student contains a list of subjects to be completed by the doctoral student, a list of dissertation examination subjects selected from the list approved by the union commission and</p>

a list of compulsory and recommended literature. The scientific part of the doctoral student's study plan consists of individual or team scientific work of the doctoral student, which is related to the topic of the dissertation. The scientific part of the doctoral student's study plan is professionally guaranteed by the supervisor. The number of credits for individual activities is determined by the study plan of the theory and construction of engineering structures Study Program and is approved by the Trade Union Commission and the Scientific Board of the Faculty of Civil Engineering.

The supervisor submits to the dean an annual evaluation of the fulfilment of the doctoral student's study program no later than 31 August for the relevant academic year, stating whether or not he / she recommends continuing his / her studies. The supervisor evaluates the status and level of fulfilment of the doctoral student's study program, adherence to deadlines, awards credits and, if necessary, submits a proposal to modify his / her individual study program.

The doctoral student registers for the dissertation examination in the full-time form of doctoral studies no later than 18 months from the date of enrolment in the doctoral studies. The doctoral student is obliged to submit a written work prepared for the dissertation examination together with the application for the dissertation examination. The written work for the dissertation exam consists of the dissertation project, containing an overview of the current state of knowledge on the topic, an outline of the theoretical foundations of its future solution and an analysis of the methodological approach to solving the issue. One opponent, appointed by the dean, will prepare a report on the written work for the dissertation examination. The dissertation examination consists of a part consisting of a discussion of the written work for the dissertation examination and a part in which the doctoral student has to demonstrate theoretical knowledge in the specified subjects of the dissertation examination. The dissertation examination takes place before an examination commission, the chairman and members of which are appointed by the dean and on the basis of a proposal by the chairman of the trade union commission. The commission has at least four members, at least one of whom is not from the place where the doctoral student works. At least one member of the commission must have the scientific-pedagogical title of professor, the other members must have the title of at least PhD. The examination board evaluates the overall result of the dissertation examination comprehensively with the statement "passed" or "failed". Minutes of the dissertation examination are prepared, where the commission concludes its recommendation, or proposal to modify the title of the dissertation. The dissertation exam is one of the state exams.

Conditions for proper completion of studies

The condition for the proper completion of the doctoral study is the completion of the dissertation examination, obtaining the required number of credits and the defence of the dissertation. The dissertation demonstrates the student of the third degree of university study in theory and construction of engineering structures Study Program ability and readiness for independent scientific and creative activity in the field of research. The work presents the results of scientific research and the application of research results in practice. The result of the dissertation should be the acquisition of new knowledge in the field. Scientific research is the process of acquiring new scientific knowledge and expanding the boundaries of human knowledge. The student must demonstrate a deep systematic understanding of the field of study, must demonstrate skills in research work and correctly apply the methods of scientific research. The student has to prove that within the dissertation he / she carried out a substantial part of the research himself, that he sketched it, constructed it, realized it, optimized it, all in an ethically clean way.

The doctoral student submits to the dean an application for permission to defend the dissertation in accordance with the study schedule, if he / she has obtained the prescribed number of credits. In addition to the dissertation and the abstract, the application will be accompanied by other documents required by Directive no. 110, which also defines the structure of the dissertation, and Directive no. 215 on final, rigorous and habilitation theses in the conditions of the University of Žilina. After receiving the application for permission to defend the dissertation, the dean submits to the chairman of the trade union commission the doctoral student's application together with the dissertation and asks him to propose the composition of the defence commission and the opponents' proposal. Commission and min. 2 opponents are then appointed by the dean of the faculty. After receiving all the opinions from the opponents, the Dean forwards the doctoral student's request for permission to defend the dissertation, together with all the requisites, including the opponents' opinions, to the chairman of the defence committee. After receiving the materials, the chairman of the defence commission will propose to the dean the time and place of the dissertation defence. The dissertation together with its defence forms one subject. The defence of the dissertation is a state examination and in the standard length of study the doctoral student must complete it no later than in the last month of the last academic year of his / her standard length of study. The defence of the dissertation takes place in the form of a scientific debate. The doctoral student will present the content of his dissertation, results and benefits. Opponents will present their opinions, on which the doctoral student will give an opinion. The discussion verifies the accuracy, justification and scientific origin of the knowledge contained in the dissertation. The defence may take place only in the presence of at least two thirds of the members of the defence commission entitled to vote, including at least two opponents, and at least one member of the commission must be from a workplace outside UNIZA. At the end of the defence, a closed meeting of the commission is held, which is attended by its members, including opponents and the trainer. The closed session will evaluate the course and result of the defence and the possibility of using the results of the dissertation in practice. At the same time, the commission and the opponents will decide in a secret ballot whether the commission will propose to award the doctoral student an academic degree. Subsequently, the commission will evaluate the defence of the dissertation with a mark, while the classification is carried out according to the classification scale specified in Directive No. 110. The chairman of the defence committee shall announce the result of the reasoned vote to the doctoral student and the other participants present at its public meeting. A proposal for the award or non-award of an academic degree to a doctoral student, together with the minutes and file material of the doctoral student, shall be submitted by the chairman of the defence commission to the dean. After a positive assessment of the proposal of the dissertation defence committee for the award or non-awarding of the academic title "doctor" to the graduate of the doctoral study, the Dean will submit to the Rector documents on the completion of the study. The academic title of "doctor" ("philosophiae doctor", abbreviated to "PhD.") is awarded by UNIZA with effect from the date of successful defence of the dissertation.

For individual study plans, the institution states the requirements for completing the individual parts of the study programme and the student's progress within the study programme in the given structure	
number of credits for compulsory courses required for proper completion of studies/completion of a part of studies	160/1 year: 44, 2 year: 23, 3 year: 46, 4. year: 47
number of credits for compulsory optional courses required for the proper completion of studies/completion of a part of studies	20/1. year: 0, 2. year: 20, 3. year: 0, 4. year: 0
number of credits for optional courses required for the proper completion of studies/completion of a part of studies	0/1. year: 0, 2. year: 0, 3. year: 0, 4. year: 0
number of credits required for the completion of studies/completion of a part of the studies for the common foundations and for the relevant specialization, in the case of a teaching combination study programme or a translation combination study programme	
number of credits for the final thesis and the defense of the final thesis required for the proper completion of studies	37/3. year: 6, 4. year: 31
number of credits for professional practice required for the proper completion of studies/completion of a part of studies	
number of credits required for the proper completion of studies/completion of a part of the studies for project work with the indication of relevant courses in engineering study programmes	
number of credits required for the proper completion of studies/completion of a part of the studies for artistic performances in addition to the final thesis in art study programmes	

Rules for the verification of learning outcomes, students' assessment and the possibilities of appealing against the assessment

At the university level, the processes, procedures and structures are defined by Directive no. 110: Study Regulations for the Third Degree of the University Study at the University of Žilina in Žilina - https://www.fri.uniza.sk/uploads/files/1490171294-smernica-110-stud-por-pre-3-st-v-zneni_dod-1-a-2_verejnene.pdf and Directive no. 216: Quality Assurance of the Doctoral Degree Studies at the University of Žilina in Žilina - <https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-216.pdf>.

Doctoral studies are evaluated according to the principles of the credit system in accordance with the Decree of the Ministry of Education of the Slovak Republic no. 614/2002 Coll. on the study credit system as amended, § 54 par. 2 of the University Act and the principles set out in Directive no. 216: Quality Assurance of Doctoral Studies at the University of Žilina in Žilina. The quality of the doctoral study is evaluated during its implementation as well as during its completion. A successfully completed doctoral study is considered to be one in which, in addition to meeting the schedule, all required criteria have been met and the doctoral student has published the results of his / her work in the form of prescribed outputs, which he / she has stated in the individual study plan.

During the implementation of the study program, the subject of the evaluation is mainly the facts related to the fulfilment of the content of the individual study plan of the doctoral student. The evaluation is performed once a year at the end of the academic year by the supervisor and approved by the guarantor of the study program and subsequently by the dean. The decisive facts are the dissertation examination and the defence of the dissertation. A doctoral student who has not fulfilled all the obligations arising from the individual study plan and does not have sufficient credits may not register for the dissertation examination or apply for permission to defend the dissertation. The quality of the doctoral study is evaluated once a year by the scientific council of the faculty within the evaluation of the level of the public university in educational activities and in the field of science, technology or art. Successful completion of doctoral studies requires compliance with the prescribed requirements in the field of publication of doctoral students in the individual study plan of the doctoral student and the minimum criteria for doctoral study outcomes in individual fields of study and programs at UNIZA, which are necessary for successful completion of doctoral studies. 1 Directive no. 216. The quality of the doctoral student's outputs and their presentation at conferences, seminars or journals is regularly evaluated by the supervisor as part of the annual evaluation, and the results are submitted to the guarantor or the dean. The quality of all publications, patents, utility models or other achieved results is evaluated by the commission and opponents within the defence of the dissertation, emphasizing their international level and contribution to the development of the relevant field of study and originality of results. The quality of the outputs, especially of the ending doctoral students, is continuously discussed and the results are regularly evaluated by the Rector's Board.

The learning outcomes at the subject level are clearly measurable by defined assessment methods, which are listed in the individual information sheets of the subjects, where their weight is also stated. The evaluation of students in individual subjects is applied in accordance with the principles of evaluation at UNIZA stated in the UNIZA Methodological Recommendation on p. 39. The evaluation corresponds to the content and methods of teaching individual subjects, i.e., whether it is a lecture in combination with exercises or laboratory exercises, respectively. only the nature of the lecture, respectively exercise or laboratory exercise, ie according to the area, content and purpose of the course, which is stated in each Information Sheet and evaluated by the number of credits.

g	Conditions for the recognition of studies or a part of studies
	At the university level, doctoral studies are governed by the rules defined in Directive no. 110: Study Regulations for the Third Degree of the University Study at the University of Žilina in Žilina - https://www.fri.uniza.sk/uploads/files/1490171294-smernica-110-stud-por-pre-3-st-v-zneni_dod-1-a-2_verejnene.pdf and Directive no. 216: Quality Assurance of Doctoral Studies at the University of Žilina in Žilina - https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-216.pdf .

	<p>In the case of foreign mobility and internships, Directive 219: Mobility Programmes of UNIZA Students and Staff Abroad defines the processes, procedures and structures of the conditions for the recognition of studies. -https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-219.pdf)</p> <p>The rules of these guidelines also govern the conditions for the recognition of studies (parts of studies) at the faculty.</p> <p>In the case of the TSEC Study Program, the guarantor of the study program decides on the recognition of the study, its part or individual subjects after getting acquainted with the applicant's portfolio. It takes into account the fulfilment of the core knowledge of the study program. This applies to applicants from Slovakia as well as from abroad.</p>
h	<p>Topics of final theses of the study programme (or a link to the list)</p> <p>The procedure for submitting the topics of final theses, in this case of dissertations, is set out in Directive no. 110 Study Regulations for the Third Degree of University Studies at the University of Žilina - https://www.fri.uniza.sk/uploads/files/1490171294-smernica-110-stud-por-pre-3-st-v-zneni-dod-1-a-2-publiknene.pdf and Directive no. 215 On Final, Rigorous and Habilitation Theses in the Conditions of the University of Žilina in Žilina -https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-215.pdf.</p> <p>The topics of the dissertations, on the proposal of the supervisors, are approved by the dean, who approves them no later than two months before the last day set for the submission of applications for doctoral studies, which can be applied for in the admission procedure. For each topic, the name of the study program, the name of the supervisor, the form of study (full-time, part-time), the deadline for submission of applications and the date of the admission procedure are given. Proposals for dissertation topics are published and published on the official board of the faculty's website, which also publishes the method and dates of students applying for study. The date of publication of the dissertation topics is determined by the academic calendar of the training workplace.</p> <p>Topics of dissertations at acad. year 2022-23 are registered at: https://svf.uniza.sk/subory/Doktorandske_studium_2022/Navrh_tem_DP_THEORY_AND_STRUCTURES_OF_ENGINEERING_CONSTRUCTIONS_2022_2023.pdf</p>
i	<p>Rules for the assignment, processing, opposition, defence and evaluation of final theses in the study programme; list of the supervisors of final theses with the assignment to topics (indicating the contact details)</p> <p>The rules for awarding, processing, opposing, defending and evaluating dissertations are defined by Directive no. 110: Study regulations for the third degree of university studies at the University of Žilina - https://www.fri.uniza.sk/uploads/files/1490171294-smernica-110-stud-por-pre-3-st-v-zneni-dod-1-a-2-verejnene.pdf , Directive no. 216: Quality Assurance of Doctoral Studies at the University of Žilina - https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-216.pdf and Directive no. 215 On Final, Rigorous and Habilitation Theses in the Conditions of the University of Žilina in Žilina - https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-215.pdf.</p> <p>Proposals for dissertations on the proposal of supervisors, with the consent of the chairman of the trade union commission, are approved by the dean, who will announce them no later than two months before the last day for submitting applications for doctoral studies. For each topic, the name of the study program, the name of the supervisor, the form of study (full-time, part-time), the deadline for submission of applications and the date of the admission procedure are given. Proposals for dissertation topics are listed and published on the official board of the faculty's website, which also publishes the method and dates of students applying for study. The date of publication of the dissertation topics is determined by the academic calendar of the training workplace.</p> <p>The entrance examination shall take place before an admissions committee consisting of at least four members. The Admissions Committee consists of its chairman and at least two members appointed by the dean. Another member of the commission is a trainer for the listed topic. The Admissions Committee evaluates the result of the entrance examination in a closed session with the conclusion "passed" or "failed". If more than one candidate has applied for one topic, their order will be determined according to the success of the entrance examination. In determining the order, the commission also takes into account the scope and quality of the applicant's previous professional publishing activities and the results of his other professional activities. Based on the results of the entrance examination, the Dean will decide on the admission of the candidate within 30 days from the date of the entrance examination. If he decides on the admission of an applicant, he / she shall also state the name of the supervisor and the topic of the dissertation in his / her decision. The written decision must also contain a statement, justification, instructions on the possibility of submitting a request for review of the decision and be delivered to the tenderer in his own hands.</p>
	<p>Opportunities and procedures for participation in student mobility</p> <p>In the case of foreign mobility and internships, Directive 219: obility Programmes of UNIZA Students and Staff Abroad defines the processes, procedures and structures of the conditions for the recognition of studies. (https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-219.pdf)</p> <p>At the faculty level, the faculty coordinator, who is usually the vice-dean with the competence of international cooperation, ensures the fulfilment of the relevant processes, procedures and structures within the framework of student mobility. With his help and with the help of the study program guarantor, the student compiles a study plan from the offer of study subjects at a foreign university so that it contains equivalents of compulsory and optional study program subjects that the student has prescribed in his study program for the relevant academic year at UNIZA.</p>

<p>When studying at another university abroad according to Art. 7 of the UNIZA Rules of Procedure, a contract is concluded between the student, the relevant UNIZA or UNIZA faculty and the partner institution that provides the study. Details are set out in the Decree of the Ministry of Education, Science and Sports of the Slovak Republic on the study credit system. The contract is concluded before the student starts attending the university.</p> <p>In the case of an internship abroad, the student fills in the "Learning agreement" in addition to the study agreement "Information about the planned study stay", the document of which also includes the study plan of the student sent abroad for study abroad in the relevant academic year. In the form, he fills in the names of subjects he / she completes abroad and their equivalents according to his / her study plan at UNIZA. Directive. 219 also defines the obligations of the student before traveling abroad as well as after returning from a foreign university.</p>
<p>Rules for adherence to academic ethics and rules for drawing consequences</p> <p>At the university level, the processes, procedures and structures are defined by Directive 207: Code of Ethics of the University of Žilina (https://www.uniza.sk/images/pdf/uradna-tabula/smernice-predpisy/2021/12072021_S-207-2021-Eticky-kodex-UNIZA.pdf) and Directive 201: Disciplinary Regulations for Students of the University of Žilina in Žilina (https://www.uniza.sk/images/pdf/uradna-tabula/smernice-predpisy/2021/02092021_S-201-2021-Disciplinary-order-for-students-UNIZA.pdf). Both documents are also valid at the faculty level.</p> <p>The essence of the code of ethics is that all persons employed or studying at the university are governed by the following ethical principles: humanity, reasonableness, honesty, decency, correctness, tact, consideration, responsibility, sense of duty, respect for the dignity of others and awareness of one's own dignity and honour, while respecting fundamental human rights and freedoms. Unacceptable practices in the field of pedagogy and research are defined and forms of violation are defined.</p> <p>The UNIZA Disciplinary Regulations defines the following: disciplinary offense, person responsible for the disciplinary offense, disciplinary action, disciplinary proceedings, decision imposing disciplinary action and review of the decision imposing disciplinary action.</p>
<p>Procedures applicable to students with special needs</p> <p>At the university level, it defines processes, procedures and structures for students with special needs Directive 198: Support for Applicants and Students with Special Needs at the University of Žilina - https://www.uniza.sk/images/pdf/specificke-potreby/2021/10082021_Dmernica-c-198-Podpora-uchadzacov-o-studium-a-SSP-na-Zilinskej-univerzite-v-Ziline.pdf , Directive No. 110: Study Regulations for the Third Degree of the University Study at the University of Žilina in Žilina- https://www.fri.uniza.sk/uploads/files/1490171294-smernica-110-stud-por-pre-3-st-v-zneni-dod-1-a-2-verejnene.pdf and Directive no. 216: Quality Assurance of Doctoral Studies at the University of Žilina - https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-216.pdf .</p> <p>The rules defined by these guidelines also apply at the faculty level.</p>
<p>Procedures for filing complaints and appeals by students</p> <p>At the university and faculty level, the processes, procedures and structures are defined by Directive 110 - Study Regulations for the Third Degree of University Studies at the University of Žilina - https://www.fri.uniza.sk/uploads/files/1490171294-smernica-110-stud-por-pre-3-st-v-zneni-dod-1-a-2-publiknene.pdf .</p> <p>The rules on student access to remedies are dealt with in Article 9 of this Directive and, in part, in Article 15. Faculty of Civil Engineering, UNIZA follows the procedures described in Directive no. 110.</p>

5. Course information sheets of the study programme (In the structure according to Decree no. 614/2002 Coll)											
Compulsory courses											
Grd.	Sem.	Course	Name	Short.	Hours	End	Credits	Profile	Core	Guarantor	
1	Z	4D0E101	Applied mathematics	AM	26 - 0 - 0	S	5	-	yes	doc. Ing. Mária Kúdelčíková, PhD.	
1	Z	4D0E102	Applied physics	AP	26 - 0 - 0	S	5	-	yes	prof. RNDr. Jozef Kúdelčík, PhD.	
1	Z	4D0E106	Methodology of scientific work	MSW	0 - 26 - 0	S	5	yes	yes	prof. Ing. Marián Drusa, PhD.	
1	Z	4D0E107	Foreing language EN	FL	0 - 26 - 0	V	2	-	-	PaedDr. Lenka Môciová, PhD.	
1	Z	4DIE104	Scientific activity	SA	0 - 26 - 0	V	5	yes	yes	prof. Ing. Josef Vičan, CSc.	
1	Z	4DIE105	Dissertation project	DiPro	0 - 26 - 0	V	2	yes	yes	doc. Ing. Jaroslav Odrobiňák, PhD.	
1	L	4D0E205	Foreing language EN	FL	0 - 26 - 0	S	3	-	-	Mgr. Eva Leľáková, PhD.	
1	L	4DIE104	Scientific activity	SA	0 - 26 - 0	V	5	yes	yes	prof. Ing. Josef Vičan, CSc.	

1	L	4DIE105	Dissertation project	DiPro	0 - 26 - 0	V	5	yes	yes	doc. Ing. Jaroslav Odrobiňák, PhD.
1	L	4DIE201	Teaching activities	TA	0 - 52 - 0	V	2	-	-	doc. Ing. Eva Remiová, PhD.
1	L	4DIE204	Preparation of Research Experiment	PoRE	26 - 0 - 0	S	5	yes	yes	doc. Ing. Eva Remišová, PhD.
2	Z	4DIE202	Scientific activity	SA	0 - 26 - 0	V	5	yes	yes	prof. Ing. Josef Vičan, CSc.
2	Z	4DIE203	Dissertation project	DiPro	0 - 26 - 0	V	5	yes	yes	doc. Ing. Jaroslav Odrobiňák, PhD.
2	L	4DIE202	Scientific activity	SA	0 - 26 - 0	V	6	yes	yes	prof. Ing. Josef Vičan, CSc.
2	L	4DIE203	Dissertation project	DiPro	0 - 26 - 0	V	5	yes	yes	doc. Ing. Jaroslav Odrobiňák, PhD.
2	L	4DIE301	Teaching Activities	TA	0 - 52 - 0	V	2	-	-	doc. Ing. Eva Remišová, PhD.
3	Z	4DIE302	Scientific activity	SA	0 - 26 - 0	V	5	yes	yes	prof. Ing. Josef Vičan, CSc.
3	Z	4DIE303	Dissertation project	DiPro	0 - 26 - 0	V	4	yes	yes	doc. Ing. Jaroslav Odrobiňák, PhD.
3	Z	4DIE304	Dissertation exam	DiEx	0 - 65 - 0	T	15	yes	yes	prof. Ing. Josef Vičan, CSc.
3	L	4DIE401	Teaching Activities	TA	0 - 52 - 0	V	2	yes	yes	doc. Ing. Eva Remišová, PhD.
3	L	4DIE402	Scientific activity	SA	0 - 6 - 0	V	6	yes	yes	prof. Ing. Josef Vičan, CSc.
3	L	4DIE403	Publishing activity	PA	0 - 52 - 0	V	8	yes	yes	doc. Ing. Matúš Kováč, PhD.
3	L	4DIE404	Doctoral dissertation	DoDi	0 - 78 - 0	V	6	yes	yes	prof. Ing. Josef Vičan, CSc.
4	Z	4DIE501	Scientific activity	SA	0 - 78 - 0	V	6	yes	yes	prof. Ing. Josef Vičan, CSc.
4	Z	4DIE502	Publishing activity	PA	0 - 52 - 0	V	10	yes	yes	doc. Ing. Matúš Kováč, PhD.
4	Z	4DIE503	Doctoral dissertation	DoDi	0 - 65 - 0	V	7	yes	yes	prof. Ing. Josef Vičan, CSc.
4	L	4DIE601	Dissertation and its defense	DiDe	0 - 195 - 0	T	24	yes	yes	prof. Ing. Josef Vičan, CSc.

Compulsory optional courses

Grd.	Sem.	Course	Name	Short.	Hours	End	Credits	Profile	Core	Guarantor
2	Z	4D0E206	Mathematical-computer Simulation	MCS	26 - 0 - 0	S	5	yes	yes	doc. Ing. Juraj Mužík, PhD.
2	Z	4D0E207	Selected Chapters from Geomechanics	SChGeo	26 - 0 - 0	S	5	yes	yes	prof. Ing. Marián Drusa, PhD.
2	Z	4D0E214	Steel Structures	SS	26 - 0 - 0	S	5	yes	yes	prof. Ing. Josef Vičan, CSc.
2	Z	4D0E216	Concrete and Masonry Structures	CaMS	26 - 0 - 0	S	5	yes	yes	prof. Ing. Peter Koteš, PhD.
2	Z	4DIE208	Selected Chapters from Road Engineering	SCfRE	26 - 0 - 0	S	5	yes	yes	doc. Ing. Matúš Kováč, CSc.
2	Z	4DIE209	Selected Chapters from Traffic Engineering	STE	26 - 0 - 0	S	5	yes	yes	prof. Ing. Ján Čelko, CSc.
2	Z	4DIE219	Selected Chapters from Railway Engineering	SChRE	26 - 0 - 0	S	5	yes	yes	prof. Ing. Libor Ižvolt, PhD.
2	Z	4DIE221	Theory of railway tracks maintenance	ToRTM	26 - 0 - 0	S	5	yes	yes	doc. Ing. Janka Šestáková, PhD.
2	L	4D0E210	Environmental science	EnVS	26 - 0 - 0	S	5	-	yes	doc. Ing. Dušan Jandačka, PhD,
2	L	4D0E212	Reliability and reconstructions of engineering constructions	RREC	26 - 0 - 0	S	5	yes	yes	prof. Ing. Josef Vičan, CSc.

	2	L	4DIE210	Pavement Mechanics	PM	26 - 0 - 0	S	5	yes	yes	prof. Ing. Martin Decký, Dr.
	2	L	4DIE211	Theory of Road and Highways Maintenance	ToRHM	26 - 0 - 0	S	5	yes	yes	doc. Ing. Eva Remišová, PhD.
	2	L	4DIE213	Concrete Bridges	CB	26 - 0 - 0	S	5	yes	yes	prof. Ing. Martin Moravčík, PhD.
	2	L	4DIE215	Steel Bridges	SB	26 - 0 - 0	S	5	yes	yes	doc. Ing. Jaroslav Odrobiňák, PhD.
	2	L	4DIE217	Stability and Plasticity of Structures	SPS	26 - 0 - 0	S	5	-	yes	doc. Ing. Daniel Papán, PhD.
	2	L	4DIE218	Underground Constructions	UCo	26 - 0 - 0	S	5	yes	yes	prof. Ing. Marián Drusa, PhD.
	2	L	4DIE220	Railway Tracks Mechanics	RTM	26 - 0 - 0	S	5	-	yes	doc. Ing. Daniel Papán, PhD.

6.	Current academic year plan and current schedule	
	Current academic year plan	https://svf.uniza.sk/index.php/studenti/vseobecne-informacie2/akademicky-kalendar
	Current schedule	https://vzdelavanie.uniza.sk/vzdelavanie/rozvrh2.php

7. Persons responsible for the study programme

Name, surname, titles	Course	Name
prof. Ing. Josef Vičan, CSc.	4D0D214	Steel Structures

List of teachers of the study programme (including doctoral students) with the assignment to the course

Contents is generated from Study plans.

Name, surname, titles	Org.form	Course	
prof. RNDr. Peter Bury, CSc.	Lecture	4D0D102	Applied physics
prof. Ing. Ján Čelko, CSc.	Lecture	4DID209	Selected Chapters from Traffic Engineerin
prof. Ing. Martin Decký, Dr.	Lecture	4DID210	Pavement Mechanics
prof. Ing. Marián Drusa, PhD.	Lecture, Seminar	4D0D106	Methodology of scientific work
prof. Ing. Marián Drusa, PhD.	Lecture	4D0D207	Selected Chapters from Geomechanics
prof. Ing. Marián Drusa, PhD.	Lecture	4DID218	Underground Constructions
doc. Ing. Dušan Jandačka, PhD.	Lecture	4D0D210	Environmental science
doc. Ing. Matúš Kováč, PhD.	Lecture	4DID208	Selected Chapters from Road Engineerin
prof. Ing. Libor Ižvolt, PhD.	Lecture	4DID219	Selected Chapters from Railway Engineer
doc. Ing. Dušan Jandačka, PhD.	Lecture	4D0D210	Environmental science
prof. Ing. Peter Koteš, PhD.	Lecture	4D0D216	Concrete and Masonry Structures
doc. Ing. Matúš Kováč, PhD.	Lecture	4DID208	Selected Chapters from Road Engineerin
doc. Ing. Matúš Kováč, PhD.	Seminar	4DID403	Publishing activity
doc. Ing. Matúš Kováč, PhD.	Seminar	4DID502	Publishing activity
prof. RNDr. Jozef Kúdelčík, PhD.	Lecture	4D0D102	Applied physics
doc. Ing. Mária Kúdelčíková, PhD.	Lecture	4D0D101	Applied mathematics
doc. Ing. Daniel Papán, PhD.	Lecture	4DID220	Railway Tracks Mechanics
prof. Ing. Martin Moravčík, PhD.	Lecture	4DID213	Concrete Bridges
PaedDr. Lenka Môcová, PhD.	Seminar	4D0D107	Foreing language EN
doc. Ing. Juraj Mužík, PhD.	Lecture	4D0D206	Mathematical-computer Simulation
doc. Ing. Jaroslav Odrobiňák, PhD.	Lecture	4DID215	Steel Bridges
doc. Ing. Daniel Papán, PhD.	Lecture	4DID217	Stability and Plasticity of Structures
doc. Ing. Eva Remišová, PhD.	Lecture	4DID204	Preparation of Research Experiment
doc. Ing. Eva Remišová, PhD.	Lecture	4DID211	Theory of Road and Highways Maintenanc
prof. Ing. Libor Ižvolt, PhD.	Lecture	4DID221	Theory of railway tracks maintenance
prof. Ing. Josef Vičan, CSc.	Lecture	4D0D212	Reliability and reconstructions of engineer
prof. Ing. Josef Vičan, CSc.	Lecture	4D0D214	Steel Structures
prof. Ing. Josef Vičan, CSc.	Lecture	4DID215	Steel Bridges

e List of the supervisors of final theses with the assignment to topics

- f New study programme.

7. Persons responsible for the study programme

g Meno a priezvisko: Ing. Filip Cigáň
Tel: 041/513 5759
Mail: filip.cigan@uniza.sk

Study advisor of the study programme

h As this is a doctoral study, the doctoral student's study advisor is his / her supervisor.

i Other supporting staff of the study programme - assigned study officer, career counsellor, administration, accommodation depa

7. Persons responsible for the study programme

Doctoral study department: Ing. Andrea Husáriková - <https://svf.uniza.sk/index.php/fakulta/pracoviska-fakulty/dekanat>

International Mobility Officer, study abroad (Erasmus +): Mgr. Zuzana Pudiková

<https://svf.uniza.sk/index.php/studenti/studentsky-zivot/studium-v-zahranici>

Career advisor: PhDr. Miroslava Bruncková, **PhD.**

<https://www.uniza.sk/index.php/studenti/prakticke-informacie/poradenske-a-karierne-centrum-uniza>

UZ Veľký Diel accommodation: Jozef Lacek (director of UZ Veľký Diel)

<https://vd.internaty.sk/>

Accommodation facility UZ Hliny V: Ing. Miroslav Stromček (director of UZ Hliny V)

<http://hliny.internaty.sk/?i=ubytovanie>

8. Spatial, material, and technical provision of the study programme and support

a List and characteristics of the study programme classrooms and their technical equipment with the assignment to learning outcomes and courses (laboratories, design and art studios, studios, workshops, interpreting booths, clinics, priest seminaries, science and technology parks, technology incubators, school enterprises, practice centres, training schools, classroom-training facilities, sports halls, swimming pools, sports grounds).

Directive No. 217 is available from the UNIZA level. 217: Resources to Support Educational, Creative and Other Related Activities of the University of Žilina in Žilina <https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-217.pdf>

The purpose of this directive is to define the resources of the University of Žilina, which are used in the implementation of accredited study programs and creative activities with regard to ensuring their maximum effectiveness, efficiency, economy, accessibility and renewal in accordance with the internal quality system of education. Resources are divided into financial, spatial, material, technical, personnel, information and support infrastructure.

At UNIZA, university-wide classrooms are available for educational activities, and individual faculties have additional classrooms in which the faculties organize their teaching as part of their educational activities and accredited study programs.

All available classrooms are listed at: <https://vzdelavanie.uniza.sk/vzdelavanie/download/doc/UNIZA-ucebne-nazvy.pdf> .

Information on the availability and usability of these classrooms for students with special needs is available at: <https://vzdelavanie.uniza.sk/vzdelavanie/rozvrh2.php> .

University-wide classrooms are used to teach mainly subjects of theoretical basis and general focus for individual faculties. These are lecture halls with a capacity of 110-150 seats, as well as smaller classrooms with a capacity of 24-60 seats for exercises, seminars, but also lectures for smaller groups of students. Virtual tours of university-wide classrooms are located at: <https://vzdelavanie.uniza.sk/vzdelavanie/rozvrh2.php> . With these classrooms, it has a schedule department, which assigns them to individual study programs and subjects according to the number of students and the requirements of faculties / departments.

Faculty classrooms are proposed to be assigned to the study program by the Council of the study program, respectively The Board of Guarantors of the Faculty of Civil Engineering and is approved by the Dean's Board of the Faculty of Civil Engineering. Departments claim these classrooms when entering the teaching schedule for the relevant academic year in accordance with the study plans of the relevant study programs.

The following faculty classrooms and laboratories are set aside for the needs of the Theory and Construction of Engineering Structures study program study program:

- standard equipment - AE102, AE103, AE013, AE202, AE203, AE303
- above standard equipped (special software) - AC205, AC105, AC106, AC206
- laboratory classrooms and laboratories - AF 016, BJ035
- laboratories with special equipment - AE013, BJ037, BJ040
- heavy laboratories - BJ025

The standard equipment of classrooms means - computer, data projector, whiteboard, wi-fi, connection by a separate computer. All classrooms are suitable for disabled students.

Material and technical equipment of laboratories and laboratory classrooms is registered at: <https://vav.uniza.sk/vevysun.php?id=1>

In addition, Faculty of Civil Engineering has processed virtual tours of laboratories with a description of material and technical equipment at: <http://priestory.uniza.sk/svf/> .

Faculty of Civil Engineering, UNIZA is equipped with devices and equipment that enable students in cooperation with teachers and researchers to acquire professional knowledge from the full range of activities of the field of study during the processing of bachelor's, diploma and doctoral theses. In the laboratories of the departments and in the Testing Laboratory of the Faculty of Civil Engineering, UNIZA (accredited by Slovak National Accreditation Service - SNAS), there is instrumentation corresponding in close connection to the scientific-research profiles of the departments. All laboratories of the departments are accessible to students. They are regularly taught and are also available to bachelors, graduates and doctoral students in the processing of bachelor's, diploma, respectively doctoral theses.

Department of Structural Mechanics and Applied Mathematics has a long tradition in the field of experimental research. The laboratory works on the basis of electronic devices, whether analog or digital.

8. Spatial, material, and technical provision of the study programme and support

The laboratory of the Department of Geotechnics which is located in the building BJ3 teaches a basic experimental program of soil and rock mechanics tests, and some special geotechnical tests to determine filtration and technological properties. The laboratory has at its disposal a unique large-scale device for shear and deformation tests for testing earth structures reinforced with geosynthetics and a unique mobile device - the static penetration set PAGANI TG 63-200.

Department of Structures and Bridges has the necessary equipment for research in the field of resistance of structures (hydraulic pulsator and breaking track, ALPHA press, MATEST press), as well as for monitoring stresses and deformations in experimental analyses of the behaviour of load-bearing elements under load. It has a measuring line for the measurement of deformations of structures and bridges SPIDER 8 with applications in laboratory conditions as well as in situ. The department's instrumentation includes a SONAGAG ultrasonic thickness gauge, a PUNDIT ultrasonic device, a DYNAMETER tear test device, a PROFOMETER 5 device for determining the position of reinforcement, a hardness tester for measuring the hardness and subsequent strength of metals EQUOTIP, a corrosion analyser, etc.

Experimental measurements in the laboratory of the Department of Highway and Environmental Engineering located in the BJ037 building are supplemented by laboratory tests aimed at determining the heat and technical characteristics of road construction materials. In the field of materials used in the construction layers of road roads, the department has sufficient instrumentation to determine the quality parameters of aggregates and top instrumentation to determine the quality parameters of various types of binders and asphalt mixtures according to current STN EN (Eurocodes). It also has sufficient instrumentation to simulate the effects of climatic influences on road construction materials and has a penetration radar to detect layers of road structures. The department is equipped with devices for automated monitoring of traffic flow elements and analysis of emission and noise conditions along roads.

For educational and scientific research activities, Department of Railway Engineering and Track Management uses an experimental base, which includes an outdoor test stand, air-conditioned cabinet, hydraulic jack, pulsator, equipment for determining the deformation resistance of structural layers of the basement and a device for determining the penetration module. The department also has instruments and equipment for measuring and recording the geometric parameters of the track (measuring trolley KRAB- Light), deformation and temperature characteristics, various types of compaction equipment and equipment for particle size distribution of bulk materials (vibrating table, sets of screens, dryers).

Further information on the allocation, use, monitoring, and decommissioning of spatial, material, and technical resources is described in Directive no. 217 (Articles 7-14).

Characteristics of the study programme information management (access to study literature according to Course information sheets, access to information databases and other information sources, information technologies, etc.)

The information necessary for the effective management of study programs at UNIZA can be found in the UNIZA Academic Information and Education System (AIVS).

Details on sources of information in this area are in Directive No. 217 Resources to Support Educational, Creative and Other Related Activities of the University of Žilina in Žilina, item 16 -<https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-217.pdf> and Directive. 218: On the Collection, Processing, Analysis and Evaluation of Information to Support the Management of Study Programmes - <https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-218.pdf>.

The Department for Schedules, in cooperation with the relevant study departments of the faculties and the Centre for Information and Communication Technologies (CeIKT), collects in information systems data on the passportization of available premises and on the inventory of technology used in study programs. Objects that are also accessible to students and employees with disabilities are specially marked in the system. Relevant sources of information for applicants and students are information on faculty study programs as well as information on university-wide study programs. Essential information about the study, including study programs, instructions for the admission procedure, graduation, etc. are part of UNIZA's internal regulations or parts thereof. Access to these documents is available on the UNIZA website at www.uniza.sk in the Applicants section. Detailed information on the study programs is located on the faculty website with the option to use the links on the main page. Information on currently provided full-time study programs in the relevant academic year is always available on the [Study Programs](#) website.

Access to study literature is provided by the UNIZA University Library (UK) <http://ukzu.uniza.sk/> - see also Directive no. 217, Art. 17: Resources to support educational, creative, and other related activities.

Access to the compulsory literature listed in the Information Sheets (available in the [Education system](#)) of the relevant subject is available either in the UK, either directly or through its sub-libraries at the relevant departments, depending on the type and form of literature and study materials. Most of the newer titles published by the University of Žilina are also available in the university publishing house. [EDIS](#).

Another frequently used form is the provision of study materials needed for the processing of specific tasks directly by the relevant teachers, unless it is freely available material (especially presentations from lectures, some sample solutions, excerpts from technical standards and various illustrative examples. These materials are most often available either in the LMS Moodle educational platform, through shared materials in MS-Teams, or by e-mail, rarely only in exceptional cases in the form of physical copies.

c Characteristics and extent of distance education applied in the study programme with the assignment to courses. Access, manuals of e-learning portals. Procedures for the transition from contact teaching to distance learning

The focus of the work of distance education and study control at Faculty of Civil Engineering, UNIZA is e-education, built on the basis of LMS Moodle. The organization of the courses is based on guided study with the support of information and communication technologies in close connection with AIVS. E-learning has been used at the university since the academic year 2004/2005.

In the last period, due to the pandemic situation, MS Teams is used for the needs of online lectures and exercises. Instructions from CeIKT are available for this form of pedagogical process:

<https://ikt.uniza.sk/uniza-wiki/microsoft-teams-informacie/>
<https://ikt.uniza.sk/uniza-wiki/vzdelavacie-skupiny/>

8. Spatial, material, and technical provision of the study programme and support

Institution partners in providing educational activities for the study programme and the characteristics of their participation

Slovak Chamber of Civil Engineers (SCCE) - authority from practice, participates in the creation of the study plan and authorization of graduates for the performance of authorized professions and professional qualifications.

Doprastav, a.s. - selected lectures, videos, employer of graduates

Váhostav, a.s. - selected lectures, videos, employer of graduates

d

Eurovia, a.s. - selected lectures, videos, employer of graduates

Reming Consult, a.s. - selected lectures, employer of graduates

AFRY CZ, s.r.o. - selected lectures, employer of graduates

Valbek & Prodex - selected lectures, employer of graduates

TSS grade - selected lectures, employer of graduates

Characteristics of the possibilities for social, sports, cultural, spiritual and social activities

At the university level, the possibilities of social, sports, cultural, spiritual and social activities are described in Directive no. 217 Resources to support educational, creative and other related activities of the University of Žilina <https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-217.pdf> - especially Articles 17, 18 and 19 .

UNIZA creates the conditions and supports the sports and cultural activities of students through various clubs and the university pastoral center, while creating the conditions and supports other activities of students, especially the activities of student organizations and student associations that operate at UNIZA and their activities are in the interest of students.

The formation of these organizations and associations is governed by the procedures set out in Directive no. 123 "Modification of the basic principles in the formation of groups of students and staff at the University of Žilina", with the approval of the UNIZA Rector granting the consent to establish a student organization / club / association based on the opinion of a three-member commission headed by the Vice-Rector for Education. These organizations are governed by statutes approved by the Rector. Their leaders are responsible to the Rector for the activities of these organizations. List of student organizations / clubs / associations operating in UNIZA:

a) GAMA club,

b) Council of accommodated students Veľký Diel,

c) Council of accommodated students Hliny,

d) Internet club,

e

e) Ľ-Tečko,

f) Club of railway friends,

g) Rapeš,

h) Radio X,

i) Erasmus Student Network (ESN),

j) University Firefighting Club UNIZA, At the same time, the Folklore Ensemble "Stavbár" and the purpose-built facility of the Church and the religious society University Pastoral Centre also operate at UNIZA.

Students of the Faculty of Civil Engineering take advantage of the opportunities for social, sports, cultural, spiritual, and social activities offered by UNIZA.

The focus of individual organizations is available at: <https://www.uniza.sk/index.php/studenti/studentsky-zivot/studentske-organizacie>

Sports activities for UNIZA students and employees are provided by the UNIZA Institute of Physical Education (hereinafter "ÚTV") as a university-wide workplace with the aim of developing a program of physical activities for UNIZA students and employees.

Substantial information is available at: <https://utv.uniza.sk/>

Possibilities and conditions for participation of the study programme students in mobilities and internships, application instructions, rules for recognition of this education

At the university level, the processes, procedures and structures are defined by Directive no. 219: Mobility Programmes of UNIZA Students and Staff Abroad - <https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-219.pdf> and www page: <https://uniza.sk/index.php/students/general-information/erasmus> .

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At the faculty level, the following activities are in the portfolio of the dean for development and foreign relations: <https://svf.uniza.sk/index.php/studenti/studentsky-zivot/studium-v-zahranici-erasmus> .

Contact person: Assoc.prof. Petra Bujňáková, PhD. Contact (mail): petra.bujnakova@uniza.sk

Assistant for International Studies and International Mobility, including Erasmus +: Mgr. Lenka

9. Required abilities and admission requirements for the study programme applicants

Required abilities and necessary admission requirements

At UNIZA level, Directive no. 206: Principles and rules of admission procedure to study at the University of Žilina - https://akreditacia.uniza.sk/doc/S_206_2021.pdf

Faculties and other UNIZA components, including by respecting and applying the principles and rules of the admission procedure to study at UNIZA, guarantee that:

- a) the admission procedure is reliable, fair and transparent,
- b) the conditions of the admission procedure are inclusive and guarantee equal opportunities for any candidate who demonstrates the necessary prerequisites for graduation,
- c) the selection of applicants is based on appropriate methods of assessing their eligibility for study,
- a d) criteria and requirements for applicants are published in advance and easily accessible.

Pursuant to Act 131/2002 on Higher Education Institutions and on Amendments to Certain Acts, the basic condition for admission to doctoral studies is a second-level university education. In the case of a foreign applicant or student who has completed his / her studies abroad, he / she shall submit to the application for university study at the latest for enrolment the study a decision on recognition of the diploma of second-degree higher education by the relevant institution in the Slovak Republic, respectively UNIZA will apply for recognition of the diploma.

Other conditions for admission to study are set at the faculty level: The selection of applicants is based on the evaluation of the entrance exam. The entrance exam is conducted as an oral discussion in front of the commission of the Theory and Structures of Engineering Constructions study programme, the content of which is to check the knowledge of foreign language, mathematics, and professional and scientific orientation of the candidate in the field for which he / she applies, including reasons for choosing the topic. In solving the topic, as well as the expected conclusions of the work. The evaluation includes an assessment of the results of the previous study and prerequisites for the applicant's independent scientific work.

Admission procedures

At the university level, doctoral studies are governed by the rules defined in Directive no. 110: Study Regulations for the Third Degree of the University Study at the University of Žilina in Žilina - <https://www.fri.uniza.sk/uploads/files/1490171294-smernica-110-stud-por-pre-3-st-v-zneni-dod-1-a-2-verejnene.pdf> and Directive no. 216: Quality Assurance of the Doctoral Degree Studies at the University of Žilina in Žilina - <https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-216.pdf>.

The rules, procedures, and structures for admission to the 3rd level of higher education are defined by Directive 206 - Principles and rules of the admission procedure to study at UNIZA - https://akreditacia.uniza.sk/doc/S_206_2021.pdf.

Applicants for the Theory and Structures of Engineering Construction study program apply for dissertation topics written by the Faculty of Civil Engineering and published on the official bulletin board. The topics of dissertations on the proposal of the supervisors, with the consent of the chairman of the Theory and Structures of Engineering Constructions study programme trade union commission, are approved by the dean, who writes them out no later than two months before the last day for submitting applications for doctoral studies. For each topic, the name of the study program, the name of the supervisor, the form of study (full-time, part-time), the deadline for submission of applications and the date of the admission procedure are given.

The entrance examination shall take place before an admissions committee consisting of at least four members. The Admissions Committee consists of its chairman and at least two members appointed by the dean. Another member of the commission is a trainer for the listed topic. The Admissions Committee evaluates the result of the entrance examination in a closed session with the conclusion "passed" or "failed". If more than one candidate has applied for one topic, their order will be determined according to the success of the entrance examination. In determining the order, the commission also takes into account the scope and quality of the applicant's previous professional publishing activities and the results of his other professional activities.

Based on the results of the entrance examination, the Dean will decide on the admission of the candidate within 30 days from the date of the entrance examination. If he decides on the admission of an applicant, he / she shall also state the name of the supervisor and the topic of the dissertation in his / her decision. The written decision must also contain a statement, justification, instructions on the possibility of submitting a request for review of the decision and be delivered to the tenderer in his own hands.

Results of the admission process over the last period

New study programme.

10. Feedback on the quality of provided education

10. Feedback on the quality of provided education

Procedures for monitoring and evaluating students' opinions on the study programme quality

At the UNIZA level, for the needs of monitoring and evaluation of students' opinions on the quality of the study program, Directive no. 223 Monitoring and Periodic Review of the Study Programmes <https://www.uniza.sk/images/pdf/kvalita/2021/smernica-UNIZA-c-223.pdf>.

The process of monitoring and periodic evaluation of study programs takes place at UNIZA at three levels:

- a) at the level of the Study Program Board,
- b) at the level of UNIZA faculties and institutes,
- c) at the level of the UNIZA Accreditation Board.

The following are involved in the monitoring and periodic evaluation of the Study Program:

a) internal stakeholders:

i: UNIZA students through subject-level and annual program-level feedback,

ii: teachers through regular annual evaluation of subjects and feedback mapping their perception of the teaching process on a three-year basis,

b) external stakeholders:

i: UNIZA graduates through feedback mapping their entry into the labour market and adaptation to employment on a three-year basis;

a ii: employers through feedback mapping the readiness of graduates for internships carried out on a three-year basis.

Faculty of Civil Engineering obtains data for monitoring quantitative and qualitative indicators of the quality of the study program through:

a) data collection from information systems for collection and processing of information from education at UNIZA (AIVS, IS admission procedure, PowerBI, IS Sofia - SAP HR ...),

b) direct measurement describing student performance, which provides direct evidence of both education and learning; direct evidence is the output of education - passing tests and examinations, mapping progress - score (number of points) before and after measurement (testing), evaluation of performance in relation to the subject of study (presentations, discussions ..), evaluation of final / dissertation theses, etc.);

c) indirect measurement capturing stakeholders' perceptions of learning, learning experiences, levels of satisfaction, attitudes, links to learning outcomes and practice needs (student surveys including subject questionnaires, focus groups, surveys of university teachers, graduates and employers, external control processes) .

The process of collecting data from information systems takes place in cooperation with the Vice-Dean for Research, the guarantor of the study program and the department for doctoral studies with the support of CelKT. The process of preparation, implementation and statistical processing of direct measurements describing the performance of students is the responsibility of individual teachers in coordination with the guarantors of study programs. The process of preparing and exporting data from indirect measurements capturing the perception of education by stakeholders is coordinated at the level of the UNIZA Science and Research Department. The person responsible for communication with stakeholders for the needs of monitoring and periodic evaluation is the guarantor of the study program in coordination with the dean of the faculty. The person responsible for monitoring at the faculty is the vice-dean for research in coordination with the dean of the faculty. The person responsible for the periodic evaluation of study programs at the level of the Study Program Council is the guarantor of the study program, at the faculty level the dean. Monitoring capturing the perception of education by stakeholders is carried out mainly through questionnaires.

Results of student feedback and related measures to improve the study programme quality

Feedback at the level of the study program is obtained through a regular anonymous questionnaire designed for students graduating from all levels of education. It is used to map the entire study program. The general set of questions consists of items organized at least into topics:

1. Content of education (fulfilment of set outcomes of Study Programme education, interconnection of subjects, identification of possible duplications ...).
2. Organization of education (workload, involvement in the life of the faculty, solving professional tasks at the faculty / department / workplace, degree of internationalization, internships, and compulsory internships ...).
3. Access to study and other counselling services.
4. Leadership and support in the process of preparing a bachelor's, master's, or dissertation thesis.

b Feedback on individual subjects is obtained through a regular semester anonymous questionnaire designed for all students at all levels of education. It maps the educational process to the level of the teacher / subject, the teacher's approach, the possibility of achieving educational outcomes and their connection with the methods of teaching and assessment, the specifics of the subject.

At the level of study programs, the guarantor of the study program analysis the feedback obtained, identifies opportunities and suggestions for strengthening strengths, suggestions for eliminating identified weaknesses and possible threats.

The results of the feedback on the implemented education and the identified opportunities for improvement are subsequently analysed, evaluated and are the basis for the creation of the Report on the evaluation of the study program within the periodic evaluation of the study program by the Study Program Board.

The key findings and results obtained from surveys and feedback from students are then published on the website of the Faculty of Civil Engineering, UNIZA, where they are available to all members of the academic community and the public.

c Results of graduate feedback and related measures to improve the study programme quality

10. Feedback on the quality of provided education

Feedback from graduates of study programs maps the effect and impact of completed higher education at the appropriate level. The anonymous questionnaire is intended for all graduates who have completed their studies in a given study program in the last three years.

The general set of questions consists of items organized at least into topics:

1. Scope of application
2. Transition to employment
3. Relevance of studies in relation to employment, subject composition, comparison of knowledge, skills and competences acquired through studies and required by practice.
4. The need for further education.

Graduates are contacted through the study program council in cooperation with the dean of the faculty to fill out a questionnaire. The application shall include information on the place of publication of previous monitoring and periodic evaluation results.

The guarantor of the study program and senior staff analyse the data from the relevant part of the feedback obtained, identify opportunities and suggestions for strengthening strengths, eliminating identified weaknesses and possible threats, propose measures to improve the quality of education.

The key findings and the results obtained from the surveys and feedback from the graduates are subsequently published on the website of Faculty of Civil Engineering, UNIZA, where they are available to all members of the academic community and the public.

The results of the feedback on the implemented education and the identified opportunities for improvement are subsequently analysed, evaluated by the Study Program Board and are the basis for the preparation of the Study Program Evaluation Report within the periodic evaluation of the study program by the Study Program Council.

11.	References to other relevant internal regulations and information concerning the study or the study programme student (e.g study guide, accommodation regulations, fee directive, guidelines for student loans, etc.).
Internal regulations and information	Link
Directive No. 207 Code of Ethics of the University of Žilina	2021/12072021_S-207-2021-Eticky-kodex-UNIZA.pdf
Directive No. 208 Rules for the Acquisition of Rights, Harmonization of Rights, Regulation and Cancellation of Rights to Habilitation and Inauguration Proceedings at the University of Žilina	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-208-en.pdf
Directive No. 210 The Statute of the Accreditation Board of the University of Žilina	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-210-en.pdf
Directive No. 211 The Procedure for Obtaining the Scientific-Pedagogical Titles and Artistic-Pedagogical Titles Associate Professor and Professor at the University of Žilina	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-211-en.pdf
Directive No. 213 Quality Assurance Policies at the University of Žilina	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-213-en.pdf
Directive No. 214 Structures of the Internal Quality Assurance System for the Creation, Modification, Approval and Cancellation of Study Programmes at the University of Žilina	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-214-en.pdf
Directive No. 216 Quality Assurance of the Doctoral Degree Studies at the University of Žilina	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-216-en.pdf
Directive No. 220 Evaluation of the Creative Activity of Employees in Relation to Quality Assurance of Education at the University of Žilina	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-220-en.pdf
Directive No. 221 Cooperation of the University of Žilina with External Partners from Practice	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-221-en.pdf
Directive No. 222 The Internal Quality Assurance System at the University of Žilina	https://www.uniza.sk/images/pdf/kvalita/EN/smernica-UNIZA-c-222-en.pdf
Internet website of University of Žilina and Faculty	www.uniza.sk svf.uniza.sk
Internal Quality Assurance System of University of Žilina	https://www.uniza.sk/index.php/en/university/general-information/uniza-internal-quality-assurance-system

Signature:

Date: