



# FACULTY OF CIVIL ENGINEERING

## MASTER'S DEGREE STUDY

# UNIVERSITY OF ŽILINA

## Faculty of Civil Engineering

### CONTACT

**University of Žilina**

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**All the questions concerning your studies will be attended at the Department of Studies:**

tel.: 041/513 55 12

**Coordinator for work with students with special needs:**

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### ACCREDITED STUDY PROGRAMMES OFFERED FOR THE ACADEMIC YEAR 2019/2020

<b>MASTER'S DEGREE STUDY PROGRAMMES</b>	
<b>FULL-TIME</b>	<b>PART-TIME *</b>
STANDARD LENGTH OF STUDY 2 YEARS	STANDARD LENGTH OF STUDY 3 YEARS
Bearing Structures of Buildings	-
Buildings	-
Roadway Engineering	Roadway Engineering
Engineering and Traffic Structures	Engineering and Traffic Structures
Civil Engineering Structures	Civil Engineering Structures
Transport Infrastructure Planning	Transport Infrastructure Planning
Railway Engineering	Railway Engineering
Technology and Construction Management	Technology and Construction Management

\* the standard tuition fee for part-time study programmes is 900 € for an academic year

**Detailed information on particular study programmes**

- syllabus,
- course information sheets

can be found at <http://vzdelavanie.uniza.sk/vzdelavanie/plany.php>.



## EXPECTED NUMBER OF ACCEPTED APPLICANTS TO THE FIRST YEAR

MASTER'S DEGREE STUDY		PLANNED CAPACITY	
STUDY PROGRAMME / FIELD OF STUDY		FULL-TIME	PART-TIME
<b>Bearing Structures of Buildings</b> / Buildings		20	-
<b>Buildings</b> / Buildings		20	-
<b>Roadway Engineering</b> / Engineering and Traffic Structures		does not open	does not open
<b>Engineering and Traffic Structures</b> / Engineering and Traffic Structures		60	20
<b>Civil Engineering Structures</b> / Engineering and Traffic Structures		does not open	does not open
<b>Transport Infrastructure Planning</b> / Engineering and Traffic Structures		20	10
<b>Railway Engineering</b> / Engineering and Traffic Structures		does not open	does not open
<b>Technology and Construction Management</b> / Civil Engineering		30	10
<b>TOTAL NUMBER</b>		150	40



## TERMS AND CONDITIONS OF ADMISSION

- **The fundamental prerequisite of** being accepted to the graduate study programme (second degree) is full completion of the first degree of the university study or the second degree of the university study, whereas the sum of the achieved credits for the previous completed university study and the sum of credits necessary for a successful completion of the second degree study programme the applicants is applying for has to reach at least 300 credits.
- **Language competence** – for study programmes that are carried out by the faculty in the Slovak language, written and oral command of Slovak or Czech language is required at least at level B1. Knowledge of at least one foreign language (English, German, French) is welcome. For study programmes that are carried out by the faculty in the English language, written and oral command of English is required at least at level B1.
- Applicants who do not actively speak Slovak or Czech are required to attend the language training. It is possible to attend the Slovak language courses at UNIZA. For more information, please contact the Institute of Lifelong Learning UNIZA <http://www.ucv.uniza.sk/ucv/?ur1=19&ur2=192&ur3=0>
- The basic and other terms and conditions of admission are applicable as for the applicants from abroad as for the applicants from Slovakia.
- Foreign students who study in a foreign language (i.e. not Slovak), pay the tuition fee as stated in § 92 Subsection 8 (Higher Education Act). The tuition fee is specified by the UNIZA directive for the respective academic year, which can be found on the university website. For the academic year 2019/20 the tuition fee is 3500 €.
- Students from abroad who study in the Slovak language do not have to pay the tuition fee.
- For foreign applicants who were accepted on the basis of intergovernmental agreements, bilateral agreements or Slovak government grants, terms and conditions stated in respective documents are applicable.



## FORMS OF ADMISSION

### 1. No entrance exams

For study in master's degree study programmes, the Faculty of Civil Engineering UNIZA will admit the applicants on the basis of their previous study results achieved in the undergraduate study without any entrance examination. The number of applicants admitted without entrance examination will be determined in a way so that it does not exceed the planned capacity of admitted students in the first year of a respective study programme.

### 2. Selection Procedure

Selection procedure is carried out in a form of an interview in order to ensure that the accepted candidates dispose of the necessary skills and abilities. Selection procedure will take place without the candidate's personal attendance.

## **Rules of Selection Procedure**

The Faculty of Civil Engineering UNIZA admits undergraduates of the same or related field of study. Relatedness is defined in the description of a respective field of study as stated by the Accreditation Commission. In case, it is not possible to clearly determine the relatedness of study fields, the decision on the admission is made by the Admission Committee.

The Faculty of Civil Engineering UNIZA does not accept candidates who have already studied in any of the bachelor's study programmes at the Faculty of Civil Engineering UNIZA and have failed twice or more times so far. Moreover, the Faculty does not accept those students who have been excluded from the study at the Faculty of Civil Engineering UNIZA under disciplinary proceedings under Art. 2 of the Disciplinary Regulations for students of the University of Žilina.

Study in the master's degree study programmes in the part-time form of study will be opened only if there are at least 5 candidates who meet the admission requirements in the respective study programme.

The Dean of the Faculty of Civil Engineering is authorised to make the final decision on the outcome of the admission procedure based on the proposal of the admission committee of the Faculty of Civil Engineering UNIZA.

It is the responsibility of the Dean of the Faculty of Civil Engineering UNIZA to complete the number of admitted students for study programmes in the first year of the master's study up to the anticipated number of candidates from those candidates who:

- met the conditions for acceptance in another master's degree study programme, but were not accepted due to the full capacity of the initially chosen study programme,
- met the conditions for acceptance in another master's degree study programme, but study programme was not opened due to the fact that there were less than 5 candidates who met the admission requirements.

These applicants for study have to meet the admission requirements stated for the complemented study programme too.

In selected study programmes of the master's degree study programmes, in the case of vacant places, there will be the second round of the admission procedure organised as well. The list of master's degree study programmes for the second round of the admission procedure will be published by July, 15, 2019.

The terms, conditions and the form of admission procedure for master's degree study are the same as in the first round of the admission procedure.



## **HOW TO APPLY**

**If an applicant wishes to apply for more than one master's degree study programme provided by the Faculty of Civil Engineering UNIZA, it is satisfactory to indicate their order of preference in one application form submitted. If the applicant is interested in both forms of study (full-time and part-time forms), it is necessary to submit two application forms and to cover two admission procedure fees.**

Applicants have to fill in the form Prihláška na vysokoškolské štúdium - 2. stupeň or they can also use an electronic application form that can be found on the university website: <https://vzdelanie.uniza.sk/prijimacky/index.php> or on the education portal: <https://prihlaskavs.sk/sk/>.

Even in case of electronic application form, it is required to print it, sign it, enclose other required documents including the proof of payment of the fee and send it to the address of the Faculty of Civil Engineering UNIZA within the stipulated deadlines.

Incomplete application form or application form sent after the deadline will not be accepted.

In the absence or failure of entrance exams, the faculty does not refund the admission fee.

If an applicant wants to take part in entrance exams at more faculties of UNIZA, the application forms have to be sent separately to each faculty and the respective admission procedure fees paid separately to each faculty.

Enclosures for the master's degree programme (to be sent with application forms):

- Curriculum Vitae,
- proof of payment of the admission fee,
- copy of the Diploma,
- information on the results of the previous study.

### **Admission fee:**

Send **20 €** to:

Žilinská univerzita, Univerzitná 1, 010 26 Žilina

Bank: Štátnej pokladnice

IBAN: SK59 8180 0000 0070 0026 9896

const. symbol: 0308

variable symbol: 10432 - masters study

**Payment method:** payment can be paid by bank transfer or postal order to the account above.  
**Proof of payment:** proof of payment is to be sent to the Faculty with the application form.

**Tuition fees** - in accordance with the Higher Education Act, information about the amount of tuition for the respective academic year will be announced on the website of the University of Žilina.

With payment of the admission fee from the EU member states, the EES countries, territories that are considered a part of the EU (Treaty of Rome, Section 299) and SEPA countries, it is necessary to use BIC: **SPRSRSKBAXXX**, IBAN: **SK59 8180 0000 0070 0026 9896**.



## USEFUL DATES

Open Day	Deadline for submitting the application form 1 <sup>st</sup> round / 2 <sup>nd</sup> round	Entrance exams
February, 6, 2019	until May, 31, 2019 from July, 22, 2019 to August, 16, 2019	July, 9, 2019 August 23, 2019



## ACCOMMODATION

Student accommodation facilities cost approx.: **70 € - 140 € per month**.



## BOARD

Students can use services of catering facilities of the University of Žilina in Žilina. **Price for food: 9 € per day**.



## SCHOLARSHIPS

Students of all study programmes can obtain motivational scholarships (for excellent results or exceptional achievements) in accordance with the stated criteria. **Students of selected study programmes can obtain motivational departmental scholarships in accordance with the stated criteria.**



## FOLLOW-UP STUDIES AFTER COMPLETION OF MASTER'S DEGREE STUDIES

There is a possibility of extended studies within follow-up doctoral degree programmes at the Faculty of Civil Engineering UNIZA in the academic year 2019/2020 in the following study programmes - Theory and Construction of Buildings, Theory and Construction of Civil Engineering Structures, Applied Mechanics, Technology and Construction Management (respective information about particular study programmes is available at the university website). After completing the master's degree, it is necessary to verify the current state of the offer of study programmes in a particular academic year.



## GRADUATE PROSPECTS

### MASTER'S STUDY PROGRAMMES

#### BEARING STRUCTURES OF BUILDINGS

##### (Field of study 5.1.4 Buildings)

The graduate's profile is designed so that it covers all the legal requirements needed to operate in the design and implementation of buildings, focusing on their bearing structures. The study programme is based on its content focusing mainly on preparation of the graduate in the field of theoretical analysis of bearing structures of buildings and some engineering structures as well. It also includes research training activities with a reasonable degree of creativity and independence that the graduate can deepen and expand in his/her further studies.

After successful completion of the study program the graduate is ready for the further doctoral studies in the field of study Buildings or he/she is able directly enter the labour market. He/she is employable as an independent expert specialist in statics, a member of a creative team, in building supply organisations, in the educational system as well as in research. He/she can also work on the basis of a trade license and after years of the prescribed practice and successful completion of examinations he/she can become an authorized civil engineer. By completion of the study programme and reaching the master's degree the graduate gets qualified to exercise a regulated profession. After completing the appropriate work experience and examination in front of the Examining Board of the Slovak Chamber of Civil Engineers (SCCE) the graduate may be authorized to act as an „authorized civil engineer“. The content and structure of the study programme corresponds with the structure and scope of the core subjects required by SCCE to qualify for the profession of an authorized (chartered) civil engineer in the category I3 - engineer for static structures, namely for buildings, engineering constructions and geotechnics.

#### BUILDINGS

##### (Field of study 5.1.4 Buildings)

Graduate obtains a qualification to exercise a regulated profession. After completing the appropriate work experience and examination in front of the Examining Board of the Slovak Chamber of Civil Engineers (SCCE) the graduate may be authorized to act as an „authorized civil engineer“. The content and structure of the study programme corresponds with the structure and scope of the core subjects required by SCCE to qualify for the profession of an authorized civil engineer according to the currently valid classification in category I1 - engineers for building structures and I3 - engineer for the statics of constructions - namely for buildings and prepared authorization in category I6 - engineer for investment preparation and management of buildings. The graduate of the study programme will be able to design building constructions and to solve their modernization and reconstruction, including the reconstruction of built heritage. He / she will be able to analyse theoretically, to model mathematically and physically, to investigate experimentally, to solve technically, to construct and design extensive and demanding structures and to solve efficiently the problems of technics, technology and economics of architectural works on a modern material base in the field of projection, research, development, testing, including the demonstration of conformity and construction of buildings, with a high level of creativity and independence. The graduate can apply in practice mainly in a position of a chief engineer of project buildings; after obtaining an authorization certificate from SCCE he / she can carry out the project activities of an authorized engineer for buildings. He / she can also carry out an author supervision in realizing of construction, a building construction supervision, or he / she can specialize in elaboration of the parts of a project documentation of buildings related to their building technological and technological solution, acceptance certification of buildings etc., within the frame of valid legislation. He / she can also apply in many areas related to the construction of buildings and creation of a construction environment, e.g. professional activities in state administration, running a construction company, commercial activities on the construction market. He / she is also able to apply in research and education, in the areas of practical application of information technologies, in consultation engineering, etc. Moreover, he / she can continue the study in doctoral study programmes.

#### ENGINEERING AND TRAFFIC STRUCTURES

##### (Field of study 5.1.5 Engineering and Traffic Structures)

Graduates are able to analyse, design, construct and maintain engineering and transport structures, to carry out research with a high degree of creativity and independence. Graduates obtain deep knowledge in the field of bearing structures analyses, enabling him/her to design, maintain, reconstruct safe, useable, durable and aesthetic constructions. The

study programme is focused on the acquisition of theoretical and practical knowledge and on the development of the graduate's ability of his/her creative application when performing the profession. Graduate in the second degree studies has knowledge of principles and methods of analysis of bearing structures of civil and transport constructions, principles of their design, diagnosis and evaluation. When solving problems in different areas he/she is able to utilise the gained experience with the application of the available software tools. In addition to such knowledge and abilities he/she has obtained knowledge of economics of constructions, their preparation and management as well as the impact of buildings on the environment. Graduates are competent to perform the career of a designer, and later an authorised engineer in the design and execution of civil engineering and transport constructions. They can also apply in the preparation of investment construction engineering activities, in construction, management, operation and maintenance of transport infrastructure (roads, highways, urban roads, airports, railways and stations, bridges and underground structures). They can apply for positions in the drawing engineer's offices, investment bodies, construction companies, in the state and public administration. By completion of the study programme and reaching the master's degree the graduate gets qualified to exercise a regulated profession. After completing the appropriate work experience and examination in front of the Examining Board of the Slovak Chamber of Civil Engineers (SCCE) the graduate may be authorized to work as an „authorized civil engineer“. The content and structure of the study programme corresponds with the structure and scope of the core subjects required by SCCE to qualify for the profession of an authorized civil engineer in the category I3 - engineer for the statics of constructions, namely for buildings, engineering structures and bridges and geotechnics.

## **TRANSPORT INFRASTRUCTURE PLANNING**

### **(Field of study 5.1.5 Engineering and Traffic Structures)**

Graduate is able to analyse, design and operate civil engineering structures and with a reasonable degree of autonomy and creativity to carry out research. He/she obtains necessary theoretical knowledge in the field of analysis and design of transport engineering structures, enabling him/her to propose a secure and reliable structures and sustainable landuse systems. He/she acquires necessary knowledge of planning and evaluating of transport infrastructure, stability and ecological sustainability of the territory/region. He/she gains the ability to identify and assess the development potential of territorial regions, at both basic and superior levels, ability to plan and projects transport infrastructure and its various components, and to manage the implementation of planned activities in order to ensure sustainable development in all aspects. He/she is competent to organisationally and professionally handle the preproject, project, management and scientific research expertise activities in the field of transport infrastructure, he/she is qualified to pass the admission requirements for the doctoral degree studies. He/she obtains the ability to work with leading technologies and software tools. After a reasonable practice he/she gains the ability to manage, secure, coordinate and provide comprehensive management of transport infrastructure. He/she can apply in planning, design and management of transport infrastructure as a designer and a manager, in the preparation of extensive investment construction, engineering activities and in public administration at the level of the state and/or a municipality. He/she can apply in drawing engineering offices, investment departments, in the state and public administration. After obtaining the necessary work experience he/she can apply for managerial positions, in the business sector, in organisations dealing with integrated transport system, in research and education at secondary schools and universities. He/she can work as a freelancer on the basis of a trade license. The content and structure of the study programme corresponds with the structure and scope of the core subjects required by the Slovak Chamber of Civil Engineers (SCCE) to qualify for the profession of an authorized engineer. Completion of the study programme and the master's degree form a sufficient basis upon which, after appropriate work experience, graduate may apply for the relevant authorisation.

## **TECHNOLOGY AND CONSTRUCTION MANAGEMENT**

### **(Field of study 5.2.8 Civil Engineering)**

Graduates are qualified experts in the field of technology, management and economics of construction, testing, quality management and performance management with a special focus on engineering and building construction. They are able to independently prepare and manage the construction of complex engineering and civil engineering works, to manage the building materials production, to run their own construction companies, to carry out research with a high degree of creativity and independence. They can manage employees and lead working groups operating on large projects. They are able to analyse and solve problems of building production, optimise construction procedures and introduce new technologies in the construction processes. Acquired theoretical and practical knowledge help the graduate of the master's degree studies to apply especially in the preparatory phase of the investment process and the preparation and construction of complex engineering, land and water constructions. Graduate obtains the ability to analyse the variant possibilities of technological processes and their application at the time of preparation of project documentation and in implementation phase, to

competently manage change processes technology in terms of innovation, to assess the quality of building materials, technological processes and structures, to test materials, composite materials and constructions, to manage construction of buildings, to apply optimal practices with regard to the economics and quality, to carry out an economic analysis of the construction process and to apply principles of economic management. The graduate can work independently as a senior manager in compliance with the principles of ethics and morality. Graduate applies in the field of theory of technology and building materials, preparation and construction management, investment project preparation, testing, quality management and power control management of transport, engineering and civil engineering constructions. Graduates are prepared for work directly on the building site, in preparation but also in management. He/she is able to manage a construction company independently, after a reasonable practice he/she is qualified to lead projects and work teams for major projects. He/she can apply in analysis and optimization activities, is able to participate in solving research projects in basic and applied research. He/she can work as a freelancer on the basis of a trade license. By completion of the study programme and reaching the master's degree the graduate gets qualified to perform a regulated profession. After completing the appropriate work experience and examination in front of the Examining Board of the Slovak Chamber of Civil Engineers (SCCE) the graduate may be authorized to act as an „authorized civil engineer“. The content and structure of the study programme corresponds with the structure and scope of the core subjects required by SCCE to qualify for the profession of an authorized civil engineer within a newly prepared legislative in the category I6 - Engineer for investment preparation and quality assurance engineering.