

# UNIVERSITY OF ŽILINA Faculty of Civil Engineering

# Y OF CIVIL ENGINEEKING ASTER'S DEGREE STUDY

# **CONTACT**

# University of Žilina

# **Faculty of Civil Engineering**

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

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# Coordinator for work with students with special needs:

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# ACCREDITED STUDY PROGRAMMES OFFERED FOR THE ACADEMIC YEAR 2020/2021

MASTER'S DEGREE STUDY PROGRAMMES		
FULL-TIME	PART-TIME *	
STANDARD LENGTH OF STUDY 2 YEARS	STANDARD LENGTH OF STUDY 3 YEARS	
Bearing Structures of Buildings	-	
Building Engineering	-	
Roadway Engineering	Roadway Engineering	
Civil Engineering Structures	Civil Engineering Structures*	
Civil Engineering Structures (English) **	-	
Objects of Transportation Structures	Objects of Transportation Structures	
Transport Infrastructure Planning	Transport Infrastructure Planning*	
Railway Engineering	Railway Engineering	
Construction Management	Construction Management*	
Construction Management and	-	
Information Systems		

<sup>\*</sup> standard tuition fee for part-time study programmes is € 900 for an academic year

<sup>\*\*</sup> study programme Civil Engineering Structures is accredited also in the English language (Civil Engineering Structures)

# **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**

MASTERS'S DEGREE STUDY			
CTUDY DDOCDAMME / FIFLD OF CTUDY	PLANNED CAPACITY		
STUDY PROGRAMME / FIELD OF STUDY	FULL-TIME	PART-TIME	
Bearing Structures of Buildings / Civil Engineering	20	-	
Building Engineering / Civil Engineering	20	-	
Roadway Engineering/ Civil Engineering	does not open	does not open	
Civil Engineering Structures / Civil Engineering	60	20	
Civil Engineering Structures (English) / Civil Engineering	10	-	
Objects of Transportation Structures / Civil Engineering	does not open	does not open	
Transport Infrastructure Planning / Civil Engineering	20	10	
Railway Engineering / Civil Engineering	does not open	does not open	
Construction Management / Civil Engineering	does not open	10	
Construction Management and Information Systems / Civil Engineering	30	-	
TOTAL	160	40	

In case of a low number of applicants for full-time and part-time study, the faculty retains the right not to open a study programme and to offer applicants another study programme in the same or related field of study.



# **TERMS AND CONDITIONS OF ADMISSION**

# **Basic condition of admission**

The basic condition for admission to master's (engineering) degree study (study programme of the second degree) is the full completion of the first degree of university study (Higher Education Act, no. 131/2002 Coll.) in the same or related field of study whereas the sum of the number of credits earned for the previous university study by which the university education was obtained and the number of credits necessary for the proper completion of the second degree study programme to which the applicant applies must be at least 300 credits. In case of a foreign applicant or a student who has completed his / her study abroad, he / she shall submit along with the application form (no later than the date of enrolment) a decision on the recognition of the certificate of completion of the first degree of higher education recognized by a relevant institution in the Slovak Republic or he / she shall ask UNIZA for the recognition of the certificate of education.

### Other conditions of admission

# 1. No Entrance Exams

To study in master's (engineer) degree study programmes, the Faculty of Civil Engineering UNIZA will admit the applicants without entrance exams according to the study results they have achieved in the bachelor study programme. 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 to the first year of a respective study programme.

### 2. Admission Procedure - Entrance Exams

The admission procedure is carried out in a form of a selection procedure in order to ensure that the accepted applicants dispose of the necessary skills and abilities.

If the applicant has submitted all the required enclosures to the application form, the admission procedure takes place without the personal participation of applicants.

### 3. Rules of Selection Procedure

A bachelor of the same or a related field of study may apply for admission to study in master (engineer) degree study programmes. Relatedness is defined in the description of the respective field of study as stated by the Accreditation Committee. If it is not

possible to clearly determine the relatedness of study fields, the decision on the result of admission procedure is made by the Admission Committee.

The Faculty of Civil Engineering UNIZA 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 in Žilina.

Study in the master's (engineer) degree study programme Engineering and Traffic Structures in the full-time form of study will be opened only if there are at least 5 candidates who meet the conditions of the admission procedure.

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

The Dean of the Faculty of Civil Engineering UNIZA is authorised to make the final decision on the result 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 complement the number of admitted applicants for study programmes in the first year of the master's (engineer) study up to the expected number of applicants who:

- met the conditions for admission to another master's (engineer) degree study programme, but were not admitted due to the full capacity of the initially chosen study programme,
- met the conditions for admission to another master's (engineer) degree study programme, but the programme was not opened due to the fact that there were less than 5 applicants who met the conditions of the admission procedure.

Such applicants for study must also meet the conditions of the admission procedure for the complemented study programme. In selected study programmes of the master's (engineer) 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 (engineer) degree study programmes for the second round of the admission procedure will be published by July, 13, 2020.

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

- 4. 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, Spanish, Russian) 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.
- 5. Health certificate the Faculty does not require health certificates of medical fitness for university study and accepts applications without health certificates for all degrees of university study.



# **ADMISSION OF FOREIGN STUDENTS**

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.

The tuition fee is specified by the UNIZA directive and published for the respective academic year on the university website. Foreign students who study in the Slovak language do not have to pay the tuition fee. Applicants from the Czech Republic who want to apply and study at UNIZA can use the application form valid in the Czech Republic. 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 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.



# APPLICATION FORM

To study master's (engineer) degree study programme at the Faculty of Civil Engineering UNIZA, one application form is sufficient, indicating the order of study programmes according to the interest of the applicant. 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 pay 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://vzdelavanie.uniza.sk/prijimacky/index.php or on the education

portal: https:// prihlaskavs.sk/sk/. All required attachments can be uploaded electronically as scanned documents.

Applications submitted after the deadline and electronic applications without required attachments will not be accepted.

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

If the 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 (engineer) degree programmes (to be sent with application forms):

- Curriculum Vitae,
- · proof of payment of the admission fee,
- certified copy of university diploma (if issued by the Faculty of Civil Engineering UNIZA it is not necessary to verify),
- information on the results of the previous study,
- signed application form (in case of electronic submission).

### **Admission fee:**

Send **20 €** to: Žilinská univerzita v Žiline, Univerzitná 1, 010 26 Žilina

Bank: Štátna pokladnica

IBAN: SK59 8180 0000 0070 0026 9896

const. symbol: 0308

variable symbol: 10432 – inžinierske štúdium

**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 (or upload

electronically)

**Tuition fees** – are determined according to Act no. 131/2002 Coll. on Higher Education and on the Change and Supplement to Some Acts. Information about the amount of tuition for the respective academic year will be announced within stipulated deadlines on the website of the University of Žilina on 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: **SPSRSKBAXXX**, IBAN: **SK59 8180 0000 0070 0026 9896**.



Open Day	Deadline for submitting the application form	Entrance exams
February, 5, 2020	1 <sup>st</sup> round: until April, 30, 2020	1 <sup>st</sup> round: July, 7, 2020
	2 <sup>nd</sup> round: from July, 20, 2020 to August, 14, 2020	2 <sup>nd</sup> round: August, 21, 2020



Accommodation facilities of the University of Žilina in Žilina offer accommodation according to accommodation capacity, taking into account the distance between the student's permanent residence and the seat of the University. **Student accommodation facilities cost approx.:**  $\in$  41  $\in$  –  $\in$  51 per month.



Students can use services of catering facilities of the University of Žilina in Žilina. Price for food: 1,10 € - 2,40 €.



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 (ENGINEER) 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 2020/2021 in the following study programmes - Theory and Construction Building Structures, Theory and Construction of Engineering Structures, Applied Mechanics, 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.



### MASTER'S (ENGINEER) DEGREE STUDY PROGRAMMES

# BEARING STRUCTURES OF BUILDINGS (Field of study – Civil Engineering)

The graduate's profile is designed to cover all legal requirements for carrying out activities in the field of design and construction of buildings with a focus on their bearing structures. The study programme is by its content focused mainly on the preparation of the graduate in the field of theoretical analysis of bearing structures of buildings and some engineering structures. It also contains preparation for research 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 programme the graduate is ready for further doctoral study in the field of study Buildings or he/she is able directly enter into the labour market. He/she is employable as an independent specialist in the field of statics, a member of a creative team, in building supply organisations, in the educational system as well as in research. He/she can also do business 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 completing the study programme and acquiring a higher education of the second degree, the graduate will acquire the qualification to pursue a regulated profession. After passing appropriate practice and examinations 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 statics of structures, namely for buildings, engineering constructions and geotechnics.

# **BUILDING ENGINEERING**

# (Field of study - Civil Engineering)

Graduate has acquired a qualification to exercise a regulated profession. After passing appropriate practice and examinations 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 - engineer 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. Graduate of the study programme will be able to design building constructions and solve their modernization and restoration including restoration of monuments. He / she will be able to theoretically analyse, mathematically and physically model, experimentally investigate, technically solve, construct and design large and demanding structures and effectively solve the problems of technics, technology and economics of architectural works on modern material basis in the field of design, research, development, testing, including the demonstration of conformity and construction of buildings, with a

high level of creativity and independence. He / she can find practical application especially in the position of a chief engineer of building design; 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 is also employable 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.

# CIVIL ENGINEERING STRUCTURES / CIVIL ENGINEERING STRUCTURES (Field of study – Civil Engineering)

Graduates is able to analyse, design, construct and maintain engineering and transport structures, to carry out research with a high degree of creativity and independence. Graduate acquires deep knowledge in the field of bearing structures analyses, enabling him/her to design, maintain and 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. After graduating, graduate of the second degree study 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 use gained experience with application software tools. In addition to such knowledge and abilities he/she has knowledge of economics of constructions, their preparation and management as well as the impact of buildings on the environment. Graduate is qualified to work as a designer, and later an authorised engineer in the design and construction of engineering and transport structures. They can also be used 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 design offices, investor units, construction companies, government and public administration. By completing the study programme and acquiring the master's (engineer) degree, the graduate will acquire the qualification to pursue a regulated profession. After passing appropriate practice and examinations 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 - Civil Engineering)

Graduate is able to analyse, design and operate engineering constructions and to carry out research with a reasonable degree of autonomy and creativity. He/she has acquired the necessary theoretical knowledge in the field of analysis and design of transport structures, enabling him/her to design safe and reliable structures and sustainable territorial systems. He/she has acquired necessary knowledge for planning and evaluation of transport infrastructure, for stability and ecological sustainability of the territory/region. He/she has gained the ability to identify and assess the development potentials of territorial systems, at both basic and higher levels, ability to plan and design transport infrastructure and its individual components, and to manage the implementation of planned activities in order to ensure sustainable development in all aspects. He/she is organisationally and professionally prepared to handle the pre-project, project, managerial and scientific research activities in the field of transport infrastructure, he/she meets the prerequisites for the doctoral degree study. He/she will obtain the ability to work with cutting-edge technologies and software tools. After appropriate practice he/she will acquire the ability to manage, secure, coordinate and provide comprehensive management of transport infrastructure. He/she is employable in the planning, design and management of transport infrastructure as a designer and manager, in the preparation of extensive investment constructions, engineering activities and in administration at the state and municipal level. He/she can apply in design offices, investment units, 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 acquisition of master's (engineer) degree, the graduate will gain a sufficient basis upon which, after appropriate work experience, he / she may apply for the relevant authorisation/license.

### **CONSTRUCTION MANAGEMENT**

# (Field of study - 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, manage the production of building materials, 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 working on large projects. They are able to analyse and solve problems of building production, optimise construction processes and introduce new technologies into construction processes. By acquiring theoretical and practical knowledge, the graduate of the master's (engineer)degree study can be employed especially in the preparatory phase of the investment process and in the preparation and construction of complex engineering, land and water structures. Graduate obtains the ability to analyse the variant possibilities of technological processes and their application at the time of preparation of project documentation and implementation phase, to manage processes of technology change 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 ethical and moral principles. Graduate is employable in the field technology and building materials, construction preparation and management, investment preparation of projects, testing, quality management and performance management of transport, engineering and building constructions. Graduates are prepared for work directly on the building site, in preparation but also in managerial positions. 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 and is able to participate in solving research projects of 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 acquiring the master's (engineer) degree, the graduate will be qualified to pursue a regulated profession. After passing appropriate practice and examinations 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 of constructions.

# CONSTRUCTION MANAGEMENT AND INFORMATION SYSTEMS (Field of study – Civil Engineering)

By completing the study programme, the graduate will be qualified to perform selected activities in construction in the areas of construction design, performance of site manager, performance of construction supervision, survey, testing and diagnostics of buildings, geodetic measurements for design activities and surveying work. After passing appropriate practice and examinations in front of the Examining Board of the Slovak Chamber of Civil Engineers (SCCE), he / she can obtain authorization in the category "engineer for civil engineering constructions" or professional competence for the performance of the work of the site manager, construction supervisor or energy certification of buildings. The graduate of the study programme can be employed in the field of theory, technology and building materials, construction preparation and management, investment preparation of projects, testing, quality management and performance management of transport, engineering and building constructions. Graduates are prepared for work directly on the building site, in preparation but also for managerial functions. He / she will be able to manage the construction company independently, after appropriate practice lead projects and work teams on large projects with the ability to apply modern methods of project management and information systems, including information modelling of buildings. He / she will be able to participate in analytical and optimization activities and will also be able to participate in research projects of basic and applied research. The graduate can do business under a trade license or be a key person in construction companies in major construction projects co-financed by the European Union. Knowledge of a foreign language entitles him / her to apply across Europe as well.