



FACULTY OF MECHANICAL ENGINEERING BACHELOR'S DEGREE STUDY

UNIVERSITY OF ŽILINA IN ŽILINA Faculty of Mechanical Engineering

CONTACT

University of Žilina in Žilina
Faculty of Mechanical Engineering
Univerzitná 8215/1, 010 26 Žilina
Tel.: 041/513 25 01
e-mail: dsjf@stroj.uniza.sk
www.fstroj.uniza.sk

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

Tel.: 041/513 25 07, 25 08
e-mail: studref@fstroj.uniza.sk

Coordinator for work with students with special needs:

doc. Mgr. Branislav Ftorek, PhD.
Tel.: 041/513 25 19, 49 50
e-mail: branislav.ftorek@fstroj.uniza.sk

ACCREDITED STUDY PROGRAMMES OFFERED FOR THE ACADEMIC YEAR 2021/2022

BACHELOR'S DEGREE STUDY PROGRAMMES	
FULL-TIME STUDY LENGTH OF STUDY 3 YEARS	PART-TIME STUDY * LENGTH OF STUDY 4 YEARS
Computer Design and Simulation	-
Mechanical Engineering Technologies	-
Energy and Environmental Technology	-
Industrial Engineering	-
Vehicles and Engines	-
Materials and Technologies in Automobile Production	-
-	Mechanical Engineering

** standard tuition fee for part-time study programmes is 500 € for an academic year*

Detailed information about 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

BACHELOR'S DEGREE STUDY		
STUDY PROGRAM / FIELD OF STUDY	PLANNED CAPACITY	
	FULL-TIME	PART-TIME
Computer Design and Simulation / Mechanical Engineering	90	-
Mechanical Engineering Technologies / Mechanical Engineering	90	-
Energy and Environmental Technology / Mechanical Engineering	40	-
Industrial Engineering / Mechanical Engineering	75	-
Vehicles and Engines / Mechanical Engineering	75	-
Materials and Technologies in Automobile Production / Mechanical Engineering	30	-
Mechanical Engineering / Mechanical Engineering	-	40
TOTAL NUMBER	400	40

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

In case of a small number of applicants for the part-time study, the Faculty retains the right not to open the study programme.



TERMS AND CONDITIONS OF ADMISSION

Basic condition of admission

The basic condition for the admission to the bachelor's degree study programme (first degree) is the full completion of secondary education or full secondary vocational education (Higher Education Act, n.131/2002 Coll.). In case of a foreign applicant or a student who has completed a secondary education abroad, the education is comparable with an education completed by a school leaving examination in the Slovak Republic. Applicant who has completed secondary education abroad will submit along with the application form or more precisely no later than the date of enrolment a document on completion of secondary education recognized by a relevant institution in the Slovak Republic.

Other conditions of admission

1. No entrance exams

Applicants will be admitted to the study without entrance exams if they meet the legal conditions for bachelor's degree study (see Basic condition for admission) and the number of applicants does not exceed the planned capacity. If the applicant has submitted all the required enclosures to the application form, the admission procedure takes place without the personal participation of the applicants.

2. Selection procedure

If the number of applicants for study exceeds the planned capacity, applicants will be admitted on the basis of the selection procedure, during which the study results achieved at the completed secondary school will be assessed. From the applicants, a ranking list will be drawn up according to the arithmetic mean of the marks at the year-end report for the penultimate year of study (not the final year).

Concerning admission, priority will be given to applicants who have completed NPS (SCIO) tests from general study prerequisites or mathematics in the current school year and their score was at least 60 %.

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

3. Language competence

Written and oral command of Slovak language or Czech language is required for study at the Faculty. Basic knowledge of at least one world language (English, German, Spanish, French) is assumed.



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. 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 in Žilina 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

Application forms are to be submitted for individual study programmes.

In case the applicant is interested in more study programmes, it is necessary to submit the application form for each study programme separately with the payment of the respective fee.

Applicants have to fill in the form Prihláška na vysokoškolské štúdium - 1. 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/>.

Applicants passing the school-leaving examination in the school year 2021/2022 attach to the electronic application form confirmed and signed scans:

- a scan of the application form signed by the applicant with a confirmation of correctness of the data by a secondary school stamp,
- proof of payment of the admission fee.

If the applicant has not submitted the required scans to the electronic application form, it is necessary to print and sign the application form and to enclose the required documents in printed form, including the proof of payment of the fee and send it to the address of the Faculty of Mechanical Engineering UNIZA within the stipulated deadlines.

Applicants who do not graduate in the academic year 2020/2021 must attach to the application form certified scans of the year-end reports and a certified scan of the school-leaving examination certificate, or more precisely to send them together with the application form by post.

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

In case of non-participation in the admission procedure or a failure in the admission procedure, the Faculty does not refund the admission procedure fee.

If the applicant wants to take part in the admission procedure at several faculties of UNIZA, the application forms must be submitted separately to each faculty with the payment of the relevant fee.

Enclosures for the bachelor's degree study programmes:

- Curriculum Vitae,
- proof of payment of the admission fee,
- certified copies of year-end reports from secondary school (if the correctness of the data is not confirmed by the secondary school in the application form).

Upon completion of the school-leaving examination, applicants will **send a certified copy of the school-leaving examination certificate and a certified copy of the year-end report** from the last year of secondary school study by a deadline, which will be announced to each applicant in writing.

Admission fee:

Send **20 €** to:

Žilinská univerzita v Žiline, Univerzitná 1, 010 26 Žilina
Bank: Štátna pokladnica
IBAN: SK34 8180 0000 0070 0026 9861
Const. symbol: 0308
variable symbol: 10231 – bakalárske štúdium

Payment method:

the payment can be paid by bank transfer or postal order to the account above.

Proof of payment:

the 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 fee for the relevant academic year will be published on the website of the University of Žilina in Žilina within the stipulated deadlines.

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: SK34 8180 0000 0070 0026 9861**.



USEFUL DATES

Open Day	Deadline for submitting the application form	Entrance exams
October, 22, 2020 January, 26, 2021	until March, 31, 2021	June, 15, 2021



ACCOMMODATION

The accommodation facilities of the University of Žilina in Žilina provide accommodation according to the accommodation capacity, taking into account the distance between the student's permanent residence and the seat of the University. **Accommodation fee: € 54 – € 61 / month.**



BOARD

Students can use the services of the catering facility of the University of Žilina in Žilina. **Price for food: € 1.10 – € 3.20.**



SCHOLARSHIPS

Students of all study programmes can obtain motivational scholarships (for excellent results or exceptional achievements) in accordance with the stated criteria. **Students of all study programmes can obtain motivational departmental scholarships in accordance with the stated criteria.** In case of an unfavourable social situation, the student can apply for a social scholarship during the study.



FOLLOW-UP STUDIES AFTER COMPLETION OF BACHELOR'S DEGREE STUDIES

There is a possibility for continuing bachelor's degree study within follow-up master's (engineer) degree study programmes at the Faculty of Mechanical Engineering UNIZA in the academic year 2021/2022 - Automated Production Systems, Machining and Bearing Production, Computer Modelling and Simulations in Mechanical Engineering, Mechanical Engineering Technologies, Technical Materials, Machines and Equipment Design, Industrial Engineering, Environment Technology, Transport Means Maintenance, Vehicles and Engines, Mechanical Engineering ((respective information about particular study programmes can be found on the university website). After completing the bachelor's degree study, it is necessary to verify the current state of the offer of study programmes in a particular academic year.



GRADUATE PROSPECTS

BACHELOR'S DEGREE STUDY PROGRAMMES

COMPUTER DESIGN AND SIMULATION

(Field of study 2381 Mechanical Engineering)

In the first part of the professional study, the graduates of the study programme Computer Design and Simulation acquired knowledge of theoretical subjects such as Mathematics, Physics, Fluid Mechanics, Thermomechanics and Strength and Elasticity which together with Rigid Body Mechanics and structurally and technologically oriented subjects create a theoretical and professional basis for study within the particular study programme. Following this basis, graduates in the second part of the professional study acquired knowledge of applied scientific disciplines focused mainly on modelling, calculations, construction, operation and maintenance of technical equipment. On the basis of compulsory optional subjects, students can

profile themselves on all areas of technical fields. In addition, graduates are routinely able to handle the work with modern CAD systems for construction and modelling support, as well as systems for calculation, analysis, and simulation of parts of technical systems and their mechanisms in dynamic and FEM analyses.

Students can demonstrate their expertise when solving the semester and final projects. The study programme ends with a final examination and the defence of the final thesis. During their study, students acquire a theoretical and methodological professional basis and practical experience and skills that are necessary to solve a wide range of issues related to the design, engineering, construction and operation of various machines and equipment. Graduates are employable in the fields of design, projecting, construction, operation and maintenance of technical systems.

MECHANICAL ENGINEERING TECHNOLOGIES

(Field of study 2381 Mechanical Engineering)

The professional profile of graduates of Mechanical Engineering Technologies study programme is characterised by theoretical but mainly practical knowledge of construction and engineering technologies, production equipment, quality, economics and production management, as well as habits and ability to skilfully apply this knowledge in practice. Graduates received theoretical but mainly practical knowledge of the most widespread technologies in mechanical engineering production and its management as well as in the field of automation of mechanical engineering. They acquired habits and skills in construction, design and technological activities using modern technological means. Graduates also have basic knowledge in the field of production, testing, technological processing, selection, exploitation and degradation of the properties of the main types of technical materials. They are especially prepared to work in industrial companies: in the field of technical material production, their technological processing to semi-finished products and products as well as in the field of quality control, purchase, sale, service and maintenance. Graduates are employable in the operation of industrial mechanical engineering companies, in railway and urban public transport, in all areas of engineering and in other organisations of administrative, production, operational or repair nature. Graduates have adequate knowledge in the field of electronics, mechatronics, robotics, as well as in the field of computer-aided mechanical engineering production. They have sufficient practical experience and skills in laboratory work, they master professional terminology in a foreign language and they are able to apply the basics of economic methods necessary for the operation of existing systems.

ENERGY AND ENVIRONMENTAL TECHNOLOGY

(Field of study 2381 Mechanical Engineering)

Graduates during their study will acquire basic knowledge especially in the fields of technical and scientific disciplines and knowledge of the theory of fluid mechanics, thermodynamics and heat and mass transfer, which together with the rigid body mechanics create an essential theoretical basis of energy technology. During the study, they are focused primarily on the study of energy sources, distribution networks of energy media, the design and construction of all types of machines that manufacture, produce and transform energy and support equipment. Furthermore, they are focused on the facilities for the use of alternative energy sources and facilities for energetic waste recovery, which corresponds to the structure of the study programme and the content of individual subjects. Graduates of the bachelor's degree study programme Energy and Environmental Technology with knowledge in the field of construction and operation of energy machinery and equipment, legislation, ecology, ergonomics, economics, business and management are able to work in all spheres of the national economy where they will operate relevant energy and environmental equipment, maintain them in serviceable condition and make simpler construction and design changes.

INDUSTRIAL ENGINEERING

(Field of study 2381 Mechanical Engineering)

During the study, undergraduates will acquire basic knowledge mainly in the areas of technical and scientific disciplines, business management, production and information technologies, company logistics, organisation of auxiliary and service operations and their economic dependencies. During the study, they are mainly focused on the organisation and management of processes at the level of basic production units (workshops, production plants), which corresponds to the structure of the study programme and the content of individual subjects. Graduates of the bachelor's degree study programme acquired the theoretical knowledge necessary for effective management of production units and their processes. During the study, graduates acquired the skill of using software applications and they are able to apply basic methods of industrial engineering in practice. Graduates of the bachelor's degree study programme Industrial Engineering are employable as managerial and coordination workers, especially in basic production units and in departments of industrial engineering, as well as in selected departments of middle management level of industrial companies. They are prepared to work as technicians of quality and productivity, assistant designers of production systems, production managers, employees in technical preparation of production, industrial engineers, employees of the departments of planning and management of production, logistics departments, quality management departments, maintenance departments, human resources departments, etc.

VEHICLES AND ENGINES

(Field of study 2381 Mechanical Engineering)

Graduates of the bachelor's degree study programme Vehicles and Engines are able to analyse problems and possibilities that occur in various areas of practice related to the field of transport means and their most important subsystems. They acquired basic knowledge from the subjects of general technical education, they have a general overview of mechanical engineering production and its management, professional knowledge in the field of transport means, combustion engines, hydraulic and pneumatic machines and equipment, knowledge of quality assessment and testing of transport means and knowledge regarding methods of compliance with legislative requirements imposed on the production and operation of transport means and their subsystems. Graduates are able to design and provide construction solutions of the transport means parts and their subsystems using modern computer-assisted technologies. They are able to find work in the operation of transport means, especially road vehicles, rail vehicles, combustion engines, hydraulic and pneumatic machines and equipment, in their diagnostics, maintenance and repairs. Graduates meet conditions for further education in master's (engineer) degree study, especially in the study programmes Vehicles and Engines and Vehicle Maintenance.

MATERIALS AND TECHNOLOGIES IN AUTOMOBILE PRODUCTION

(Field of study 2381 Mechanical Engineering)

Graduates of the study programme Materials and Technologies in Automobile Production are able to solve construction and technological problems of the implementation of machinery and systems; they have knowledge of methods of designing individual components and complete equipment, manufacturing technologies, operation and maintenance of machinery with an emphasis on automobile production. They have basic knowledge of the chemical composition, structure and properties of technical materials and technologies of their production and processing; they are able to solve problems related to the preparation of production, application of materials and are qualified in the field of material quality control. Graduates are able to assess the quality of work and products, and they are prepared to work as line managers in all of the above mentioned areas. Graduates of the study programme Materials and Technologies in Automobile Production are able to work as developers, technologists and workers in automotive operation but also in other sectors of industry, in public as well as in private sectors.

MECHANICAL ENGINEERING

(Field of study 2381 Mechanical Engineering)

The professional profile of graduates of Mechanical Engineering Technologies study programme is characterised by theoretical but mainly practical knowledge of construction and engineering technologies, production equipment, quality, economics and production management, as well as habits and ability to skilfully apply this knowledge in practice. Graduates received theoretical but mainly practical knowledge of the most widespread technologies in mechanical engineering production and its management as well as in the field of automation of mechanical engineering. They acquired habits and skills in construction, design and technological activities using modern technological means. Graduates also have basic knowledge in the field of production, testing, technological processing, selection, exploitation and degradation of the properties of the main types of technical materials. They are especially prepared to work in industrial companies: in the field of technical material production, their technological processing to semi-finished products and products as well as in the field of quality control, purchase, sale, service and maintenance. Graduates are employable in the operation of industrial mechanical engineering companies, in railway and urban public transport, in all areas of engineering and in other organisations of administrative, production, operational or repair nature. Graduates have adequate knowledge in the field of electronics, mechatronics, robotics, as well as in the field of computer-aided mechanical engineering production. They have sufficient practical experience and skills in laboratory work, they master professional terminology in a foreign language and they are able to apply the basics of economic methods necessary for the operation of existing systems.